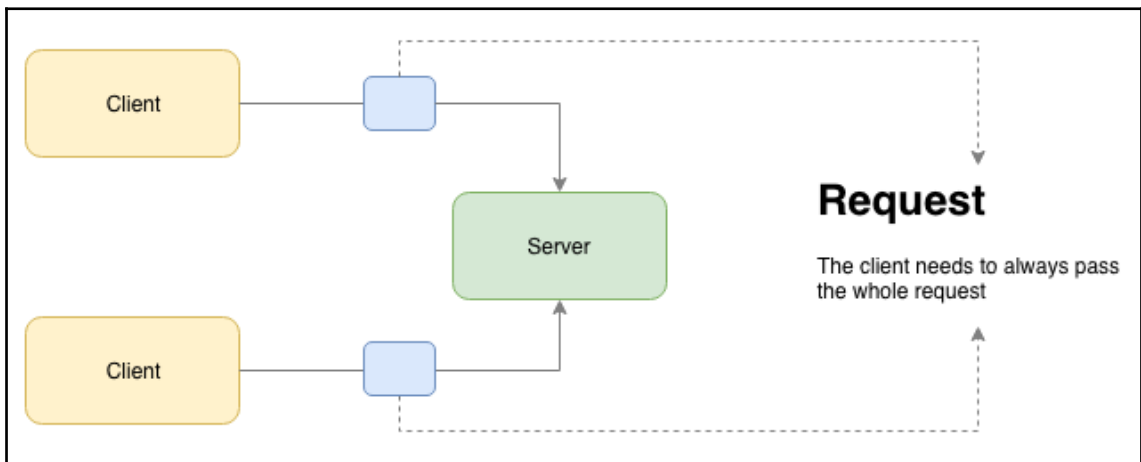
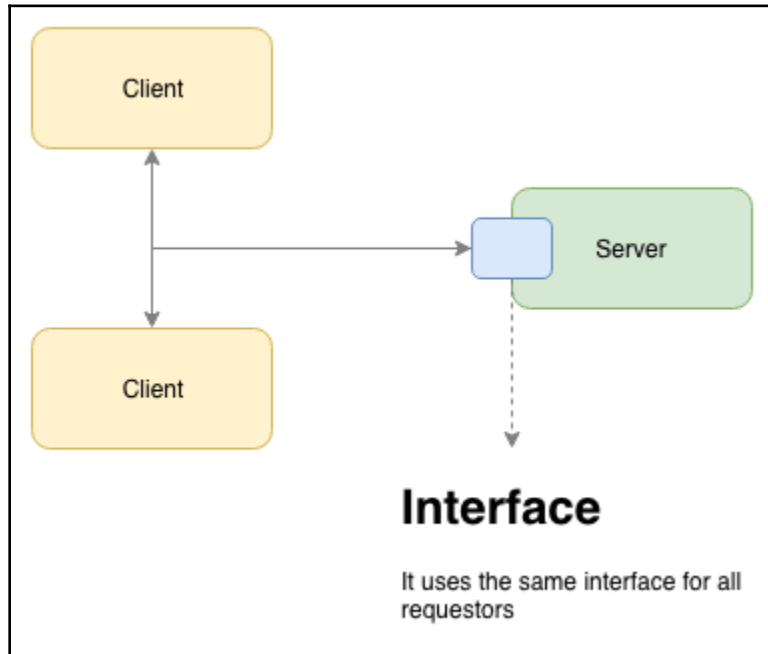
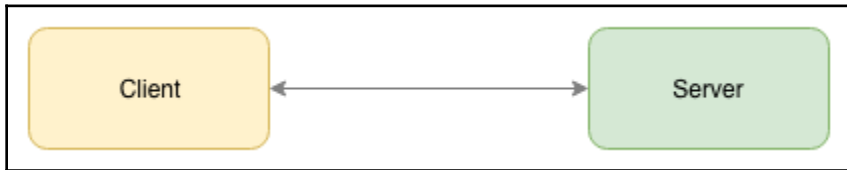
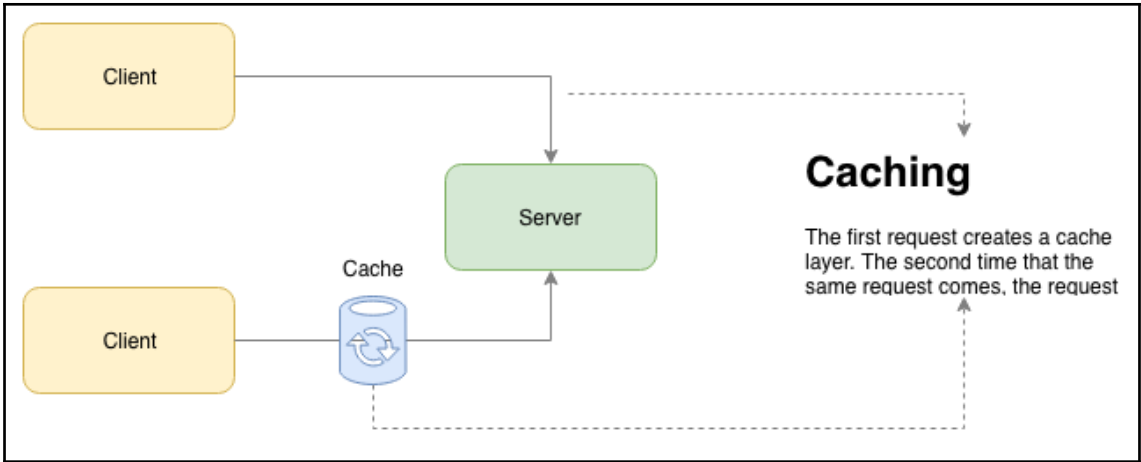
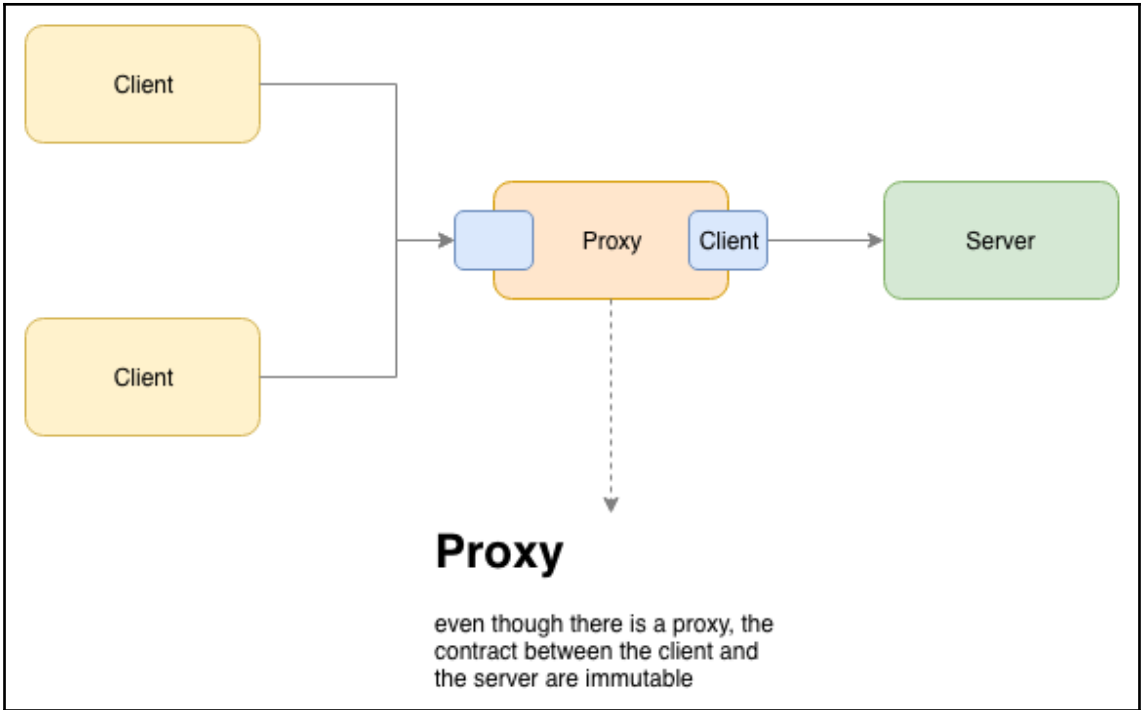
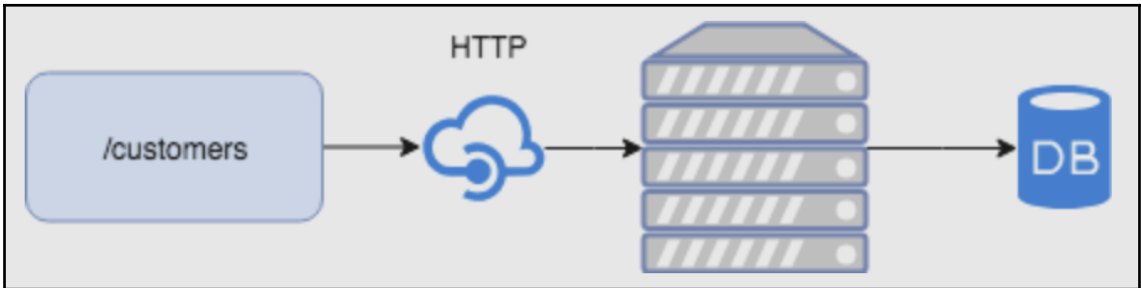
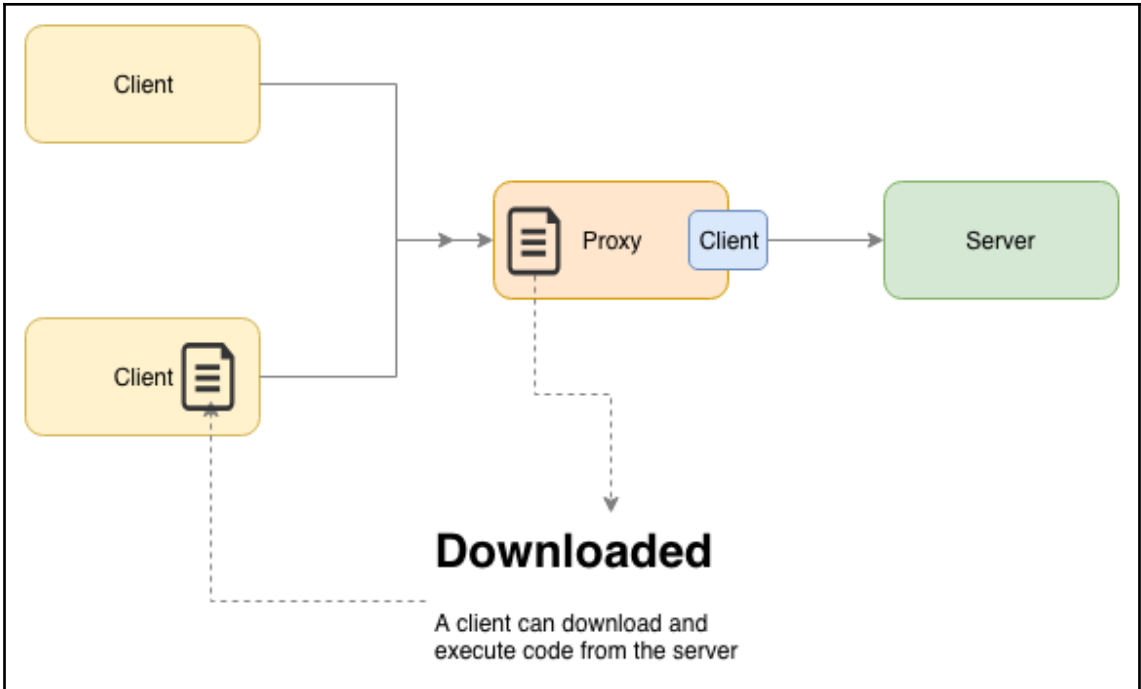


Chapter 1: Introduction to RESTful API Development

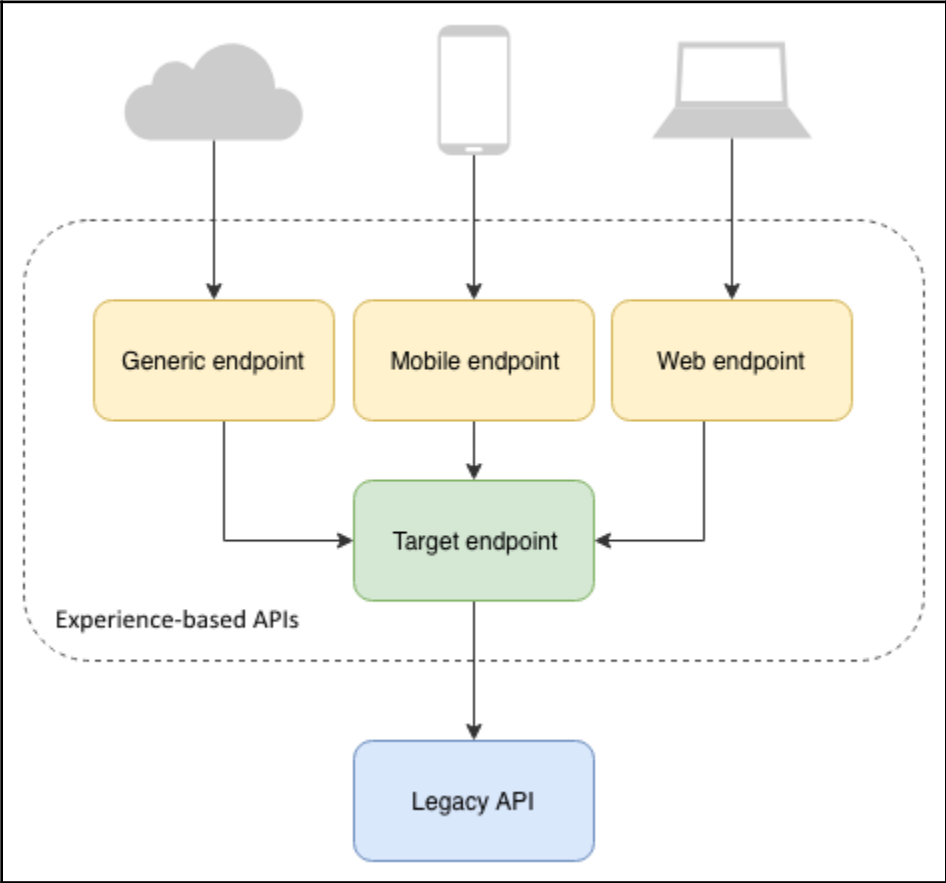








Chapter 2: Principles of Designing RESTful APIs



Chapter 3: Designing RESTful APIs with OpenAPI and Swagger

The image shows the Swagger Editor interface. On the left, a code editor displays a Swagger specification in JSON format. On the right, the rendered API view is shown, including the title 'Swagger Petstore', a description, and a list of API endpoints.

```
1 swagger: "2.0"
2 info:
3   description: "This is a sample server Petstore server. You can find
4     out more about Swagger at [http://swagger.io](http://swagger.io)
5     or on [irc.freenode.net, #swagger](http://swagger.io/irc/). For
6     this sample, you can use the api key `special-key` to test the
7     authorization filters."
8   version: "1.0.0"
9   title: "Swagger Petstore"
10  termsOfService: "http://swagger.io/terms/"
11  contact:
12    email: "apiteam@swagger.io"
13  license:
14    name: "Apache 2.0"
15    url: "http://www.apache.org/licenses/LICENSE-2.0.html"
16 host: "petstore.swagger.io"
17 basePath: "/v2"
18 tags:
19 - name: "pet"
20   description: "Everything about your Pets"
21   externalDocs:
22     description: "Find out more"
23     url: "http://swagger.io"
24 - name: "store"
25   description: "Access to Petstore orders"
26 - name: "user"
27   description: "Operations about user"
28   externalDocs:
29     description: "Find out more about our store"
30     url: "http://swagger.io"
31 schemes:
32 - "http"
33 paths:
34   /pets:
35     post:
36       tags:
37       - "pet"
38       summary: "Add a new pet to the store"
```

Swagger Petstore ^{1.0.0}
[Base URL: petstore.swagger.io/v2]

This is a sample server Petstore server. You can find out more about Swagger at <http://swagger.io> or on [#swagger](http://irc.freenode.net). For this sample, you can use the api key **special-key** to test the authorization filters.

[Terms of service](#)
[Contact the developer](#)
[Apache 2.0](#)
[Find out more about Swagger](#)


Schemes: HTTP Authorize


pet Everything about your Pets Find out more: <http://swagger.io>


POST /pet Add a new pet to the store lock









PUT /pet Update an existing pet lock


Schemes

HTTP 

Authorize 

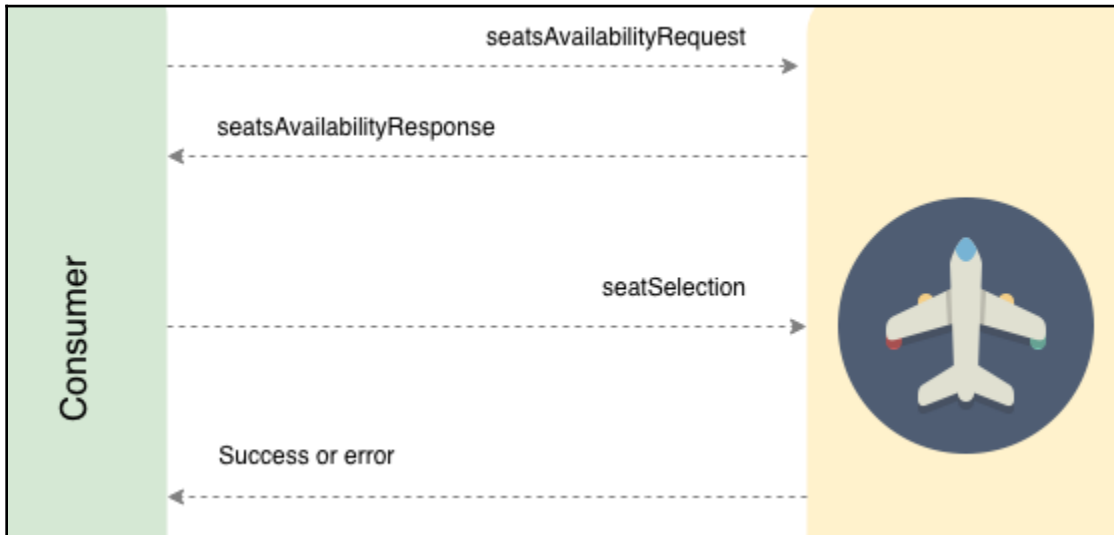
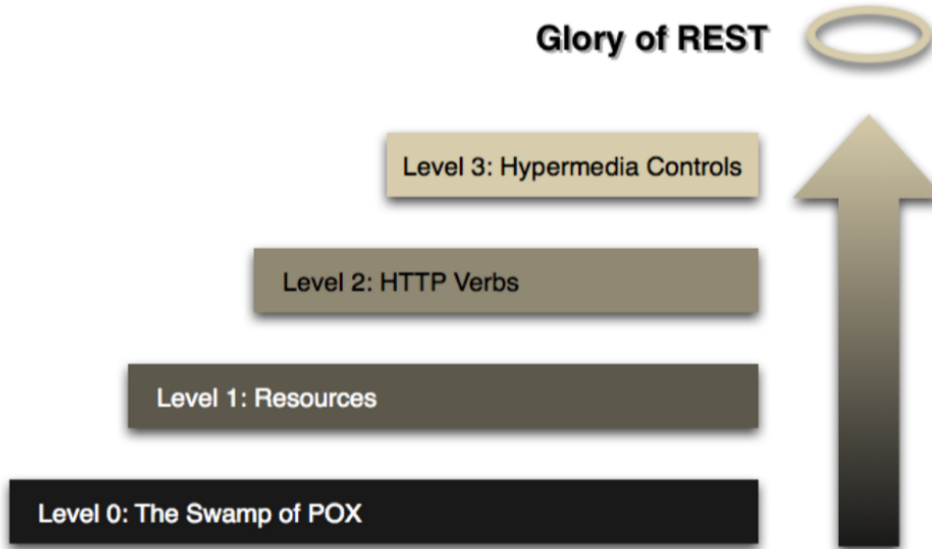
pet Everything about your Pets 

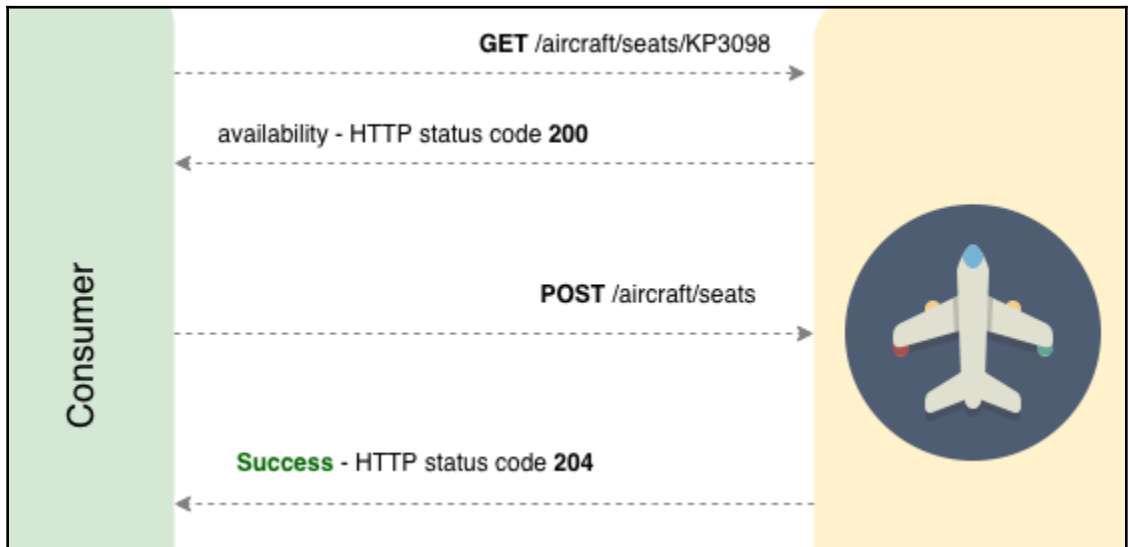
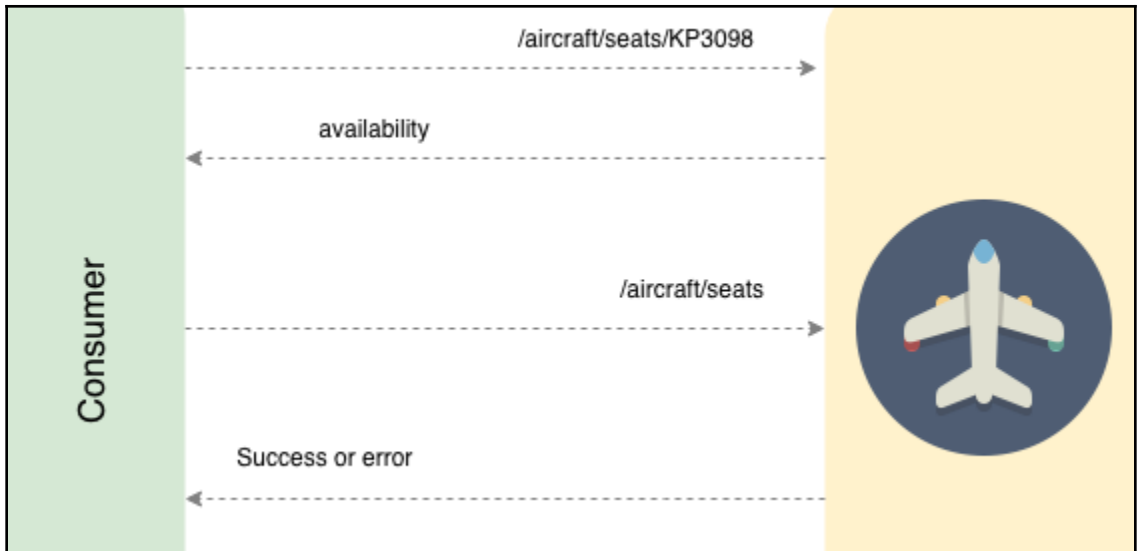
- POST** /pet Add a new pet to the store 
- PUT** /pet Update an existing pet 
- GET** /pet/findByStatus Finds Pets by status 
- GET** /pet/findByTags Finds Pets by tags 
- GET** /pet/{petId} Find pet by ID 
- POST** /pet/{petId} Updates a pet in the store with form data 
- DELETE** /pet/{petId} Deletes a pet 
- POST** /pet/{petId}/uploadImage uploads an image 

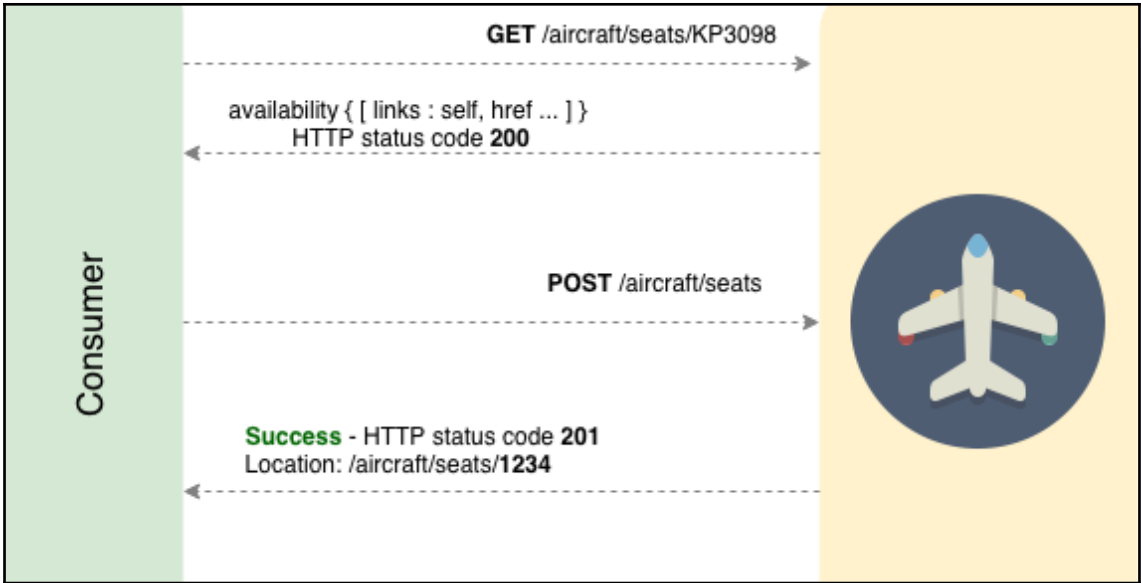
store Access to Petstore orders 

```
12 Available Clients: [ akka-scala,  
11 android, async-scala, clojure, cpprest, csharp, CsharpDotNet2,  
10 cwiki, dart, dynamic-html, flash, go, groovy, html,  
9 html2, java, javascript, javascript-closure-angular,  
8 jaxrs-cxf-client, jmeter, objc, perl, php, python,  
7 qt5cpp, ruby, scala, swagger, swagger-yaml, swift,  
6 swift3, tizen, typescript-angular, typescript-angular2,  
5 typescript-fetch, typescript-node],  
4  
3 Available Servers: [ aspnet5, aspnetcore,  
2 erlang-server, go-server, haskell, inflector,  
1 jaxrs, jaxrs-cxf, jaxrs-cxf-cdi, jaxrs-resteasy,  
13 jaxrs-spec, "lumen", "msf4j", "nancyfx", "nodejs-server",  
1 python-flask, rails5, scalatra, silex-PHP, sinatra,  
2 slim, spring, undertow]  
~  
~  
~  
~  
~  
~
```

Richardson Maturity Model (via Martin Fowler)







The screenshot shows the Swagger Editor interface. The left pane displays the Swagger JSON definition, and the right pane shows the rendered API documentation.

```

1 openapi: 3.0.0
2
3 servers:
4   - description: The server description
5     url: https://localhost:3000/hands-on-store/1.0.0
6
7 info:
8   description: |
9     This is a sample store server. You can find
10    out more about Swagger at
11    [http://swagger.io](http://swagger.io)
12   version: "1.0.0"
13   title: Swagger store
14   termsOfService: 'http://swagger.io/terms/'
15   contact:
16     email: biharck@gmail.com
17   license:
18     name: Apache 2.0
19     url: 'http://www.apache.org/licenses/LICENSE-2.0.html'
20
21 tags:
22   - name: store
23     description: Access to store orders
24   - name: user
25     description: Operations about user
26     externalDocs:
27       description: Find out more about our store
28       url: 'http://swagger.io'
29
30 paths:
31   /store/inventory:
32     get:
33       tags:
34         - store
35       summary: Returns pet inventories from the store
36       description: Returns a map of status codes to quantities
37       operationId: getInventory
38       responses:
39         '200':
40           description: successful operation
41           content:
42             application/json:
43               schema:
44                 type: object
45                 additionalProperties:
46                   type: integer
47                   format: int32
48           $ref: '#/components/responses/UnauthorizedError'
49
50   /store/orders:
51     post:

```

The rendered API documentation on the right shows the following endpoints:

- store** (Access to store orders)
 - GET `/store/inventory`: Returns pet inventories from the store
 - POST `/store/orders`: Place an order for a pet
 - GET `/store/orders/{orderId}`: Find purchase order by ID
 - DELETE `/store/orders/{orderId}`: Delete purchase order by ID
- user** (Operations about user) (Find out more about our store: <http://swagger.io>)
 - POST `/users`: Create user
 - GET `/users/login`: Logs user into the system
 - GET `/users/logout`: Logs out current logged in user session
 - GET `/users/{username}`: Get user by user name
 - PATCH `/users/{username}`: Updated user
 - DELETE `/users/{username}`: Delete user

store Access to store orders ▼

GET `/store/inventory` Returns pet inventories from the store 🔒

Returns a map of status codes to quantities

Parameters Cancel

No parameters

Execute Clear

Responses

Curl

```
curl -X GET "https://localhost:3000/hands-on-store/1.0.0/store/inventory" -H "accept: application/json"
```

Request URL

```
https://localhost:3000/hands-on-store/1.0.0/store/inventory
```

Server response

POST /store/orders Place an order for a pet 🔒

Parameters Cancel

No parameters

Request body required application/json

order placed for purchasing the pet

Edit Value Model

```
{
  "id": 0,
  "petId": 0,
  "quantity": 0,
  "shipDate": "2018-11-22T00:26:15.378Z",
  "status": "placed",
  "complete": false
}
```

Cancel

Execute Clear

Responses

Curl

```
curl -X POST "https://localhost:3000/hands-on-store/1.0.0/store/orders" -H "accept: application/json" -H "Content-Type: application/json" -d '{"id":0,"petId":0,"quantity":0,"shipDate":"2018-11-22T00:26:15.378Z","status":"placed","complete":false}'
```

Request URL

```
https://localhost:3000/hands-on-store/1.0.0/store/orders
```

Server response

Code	Details	
<i>Undocumented</i>	TypeError: Failed to fetch	
Responses		
Code	Description	Links
200	<div style="background-color: #333; color: #fff; padding: 5px; border-radius: 5px;"><i>successful operation</i></div> <div style="border: 1px solid #008000; padding: 2px; display: inline-block; margin-top: 5px;"> application/json ▼ </div> <small>Controls Accept header.</small> <div style="margin-top: 10px;"> Example Value Model <div style="background-color: #333; color: #fff; padding: 5px; border-radius: 5px; margin-top: 5px;"> <pre>{ "additionalProp1": 0, "additionalProp2": 0, "additionalProp3": 0 }</pre> </div> </div>	No links
401	<div style="background-color: #333; color: #fff; padding: 5px; border-radius: 5px;"><i>Access token is missing or invalid</i></div>	No links

Models



Order



```
Order {
  id                integer($int64)
  petId            integer($int64)
  quantity         integer($int32)
  shipDate        string($date-time)
  status           string
                  Order Status

  Enum:
    > Array [ 3 ]
  complete         boolean
                  default: false
}
```

User



```
User {
  id                integer($int64)
  username          string
  firstName         string
  lastName          string
  email            string
  password         string
  phone            string
  userStatus       integer($int32)
                  User Status
}
```

Swagger Editor
File ▾ Edit ▾ Insert ▾ Generate Server ▾ Generate Client ▾

```

1  openapi: 3.0.0
2
3  servers:
4    - description: The server description
5      url: https://localhost:3000/hands-on-st
6  info:
7    description: |
8      This is a sample store server. You can
9      out more about Swagger at
10     [http://swagger.io](http://swagger.io)
11   version: "1.0.0"
12   title: Swagger store
13   termsOfService: 'http://swagger.io/terms/
14   contact:
15     email: biharck@gmail.com
16   license:
17     name: Apache 2.0
18     url: 'http://www.apache.org/licenses/LI
19 tags:
20 - name: store
21   description: Access to store orders
22 - name: user

```

Beta feature; click for more info.

- inflector
- jaxrs-cxf
- jaxrs-cxf-cdi
- jaxrs-di
- jaxrs-jersey
- jaxrs-resteasy
- jaxrs-resteasy-eap
- jaxrs-spec
- kotlin-server
- spring

Swagger Editor
File ▾ Edit ▾ Insert ▾ Generate Server ▾ Generate Client ▾

```

1  openapi: 3.0.0
2
3  servers:
4    - description: The server description
5      url: https://localhost:3000/hands-on-store/1.0.0
6  info:
7    description: |
8      This is a sample store server. You can find
9      out more about Swagger at
10     [http://swagger.io](http://swagger.io)
11   version: "1.0.0"
12   title: Swagger store
13   termsOfService: 'http://swagger.io/terms/'
14   contact:
15     email: biharck@gmail.com
16   license:
17     name: Apache 2.0
18     url: 'http://www.apache.org/licenses/LICENSE-2.0.html'
19 tags:
20 - name: store
21   description: Access to store orders
22 - name: user

```

Beta feature; click for more info.

- dynamic-html
- html
- html2
- java
- jaxrs-cxf-client
- kotlin-client
- php
- swift3
- swift4
- typescript-angular

Swagger store 1.0.0 OAS3

This is a sample store server. You can find out more about Swagger at <http://swagger.io>

[Terms of service](#)

[Contact the developer](#)

[Apache 2.0](#)

[Find out more about Swagger](#)

Servers

Authorize



store Access to store orders



GET `/store/inventory` Returns pet inventories from the store



POST `/store/orders` Place an order for a pet



GET `/store/orders/{order-id}` Find purchase order by ID



DELETE `/store/orders/{order-id}` Delete purchase order by ID



user Operations about user

Find out more about our store: <http://swagger.io>



POST `/users` Create user



GET `/users/login` Logs user into the system

GET `/users/logout` Logs out current logged in user session

GET `/users/{username}` Get user by user name



PATCH `/users/{username}` Updated user



Chapter 4: Setting Up Your Development Environment

node

HOME | ABOUT | DOWNLOADS | DOCS | GET INVOLVED | SECURITY | NEWS | **FOUNDATION**

Downloads

Latest LTS Version: **10.13.0** (includes npm 6.4.1)

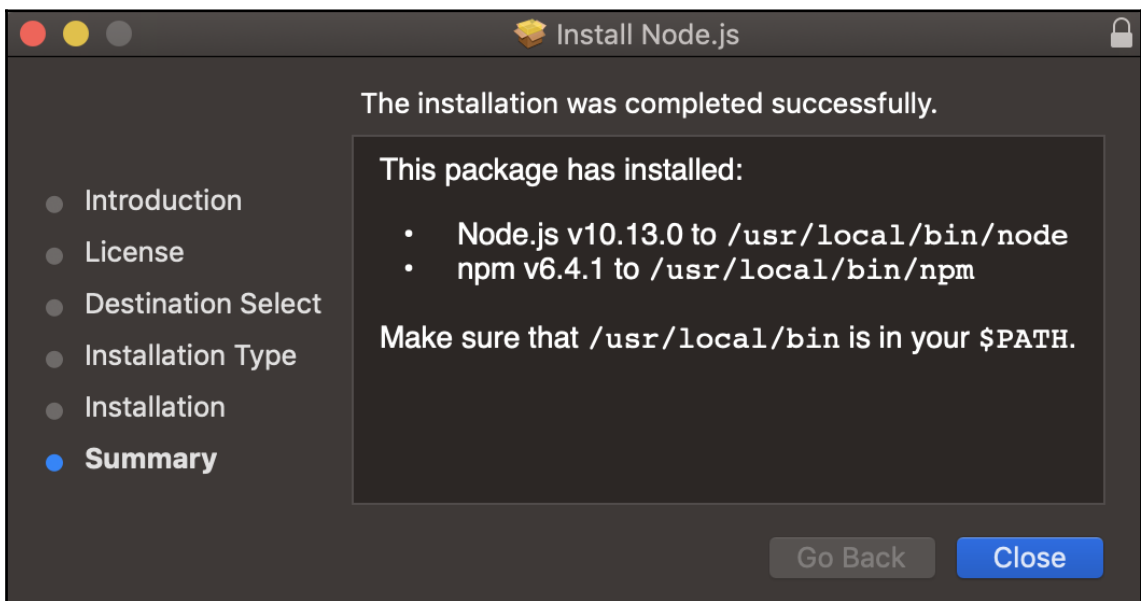
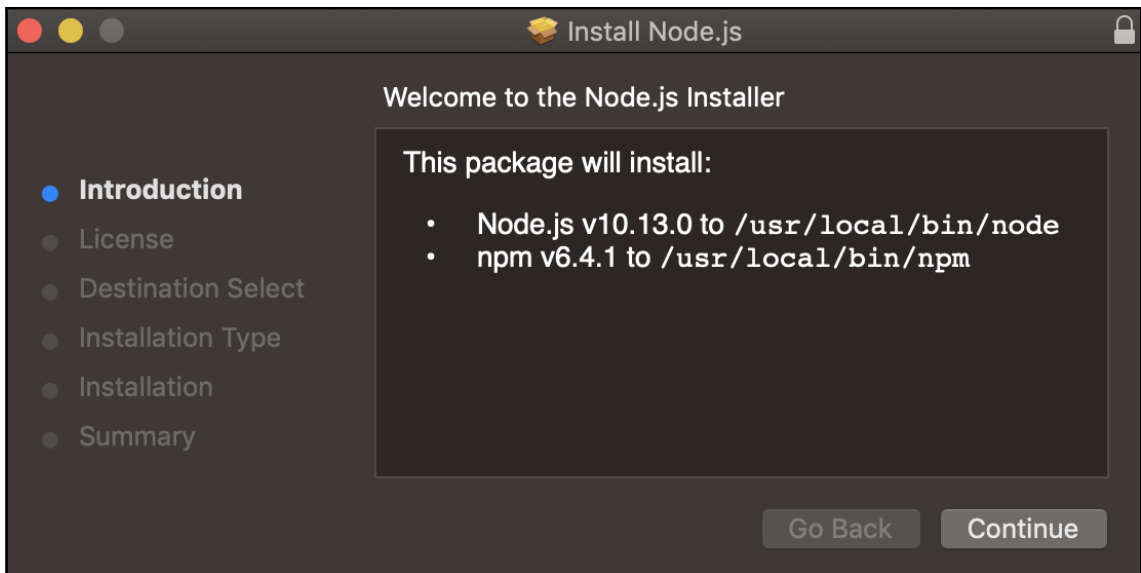
Download the Node.js source code or a pre-built installer for your platform, and start developing today.

LTS
Recommended For Most Users

Current
Latest Features

Windows Installer | macOS Installer | Source Code

Windows Installer (.msi)	32-bit	64-bit	
Windows Binary (.zip)	32-bit	64-bit	
macOS Installer (.pkg)	64-bit		
macOS Binary (.tar.gz)	64-bit		
Linux Binaries (x64)	64-bit		
Linux Binaries (ARM)	ARMv6	ARMv7	ARMv8
Source Code	node-v10.13.0.tar.gz		



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npm Search packages Search log in or sign up

typescript

3.1.6 • Public • Published 17 hours ago

Readme 0 Dependencies 5,862 Dependents 1,148 Versions

build passing Azure Pipelines succeeded npm package 3.1.6 downloads 12M/m

TypeScript

gitter join chat

TypeScript is a language for application-scale JavaScript. TypeScript adds optional types to JavaScript that support tools for large-scale JavaScript applications for any browser, for any host, on any OS. TypeScript compiles to readable, standards-based JavaScript. Try it out at the [playground](#), and stay up to date via [our blog](#) and [Twitter account](#).

install

```
> npm i typescript
```

± weekly downloads

3,102,832

version	license
3.1.6	Apache-2.0

open issues pull requests

localhost:3000

localhost:3000

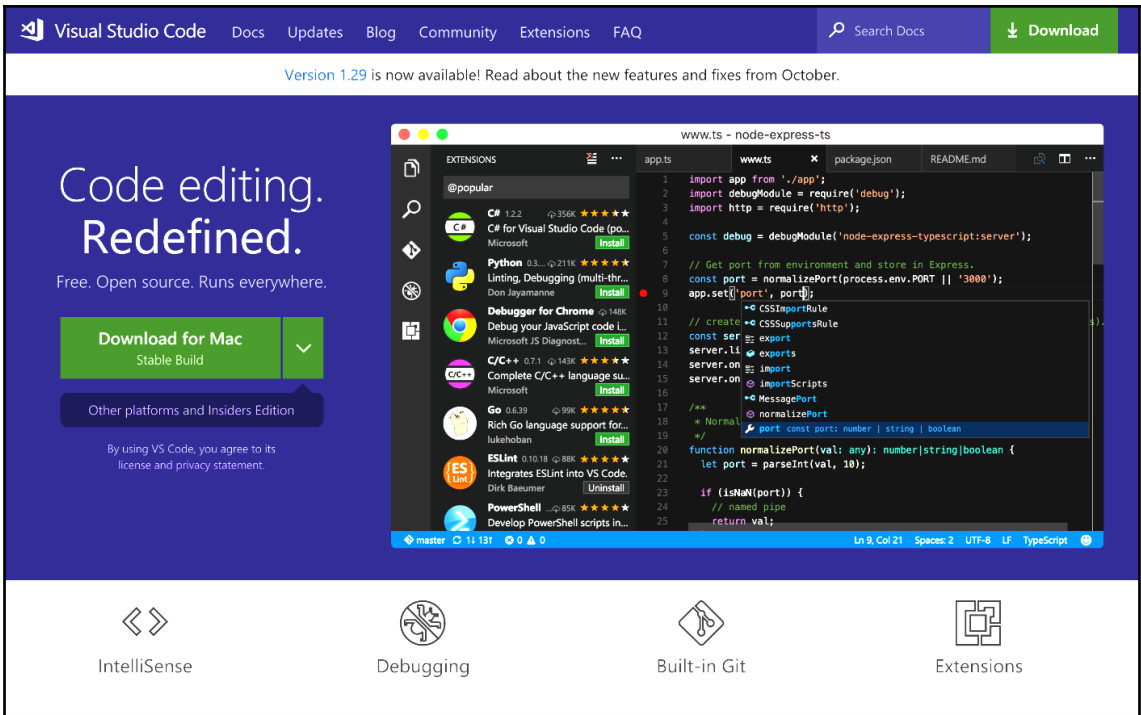
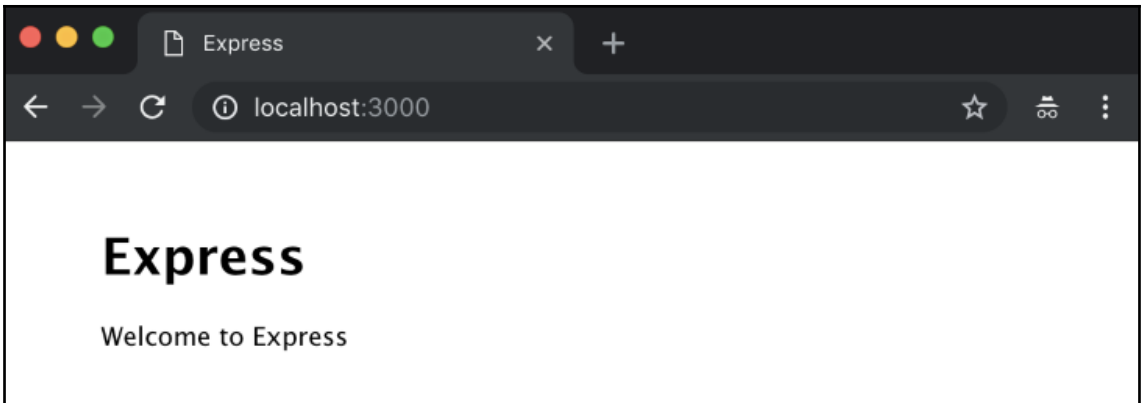
```
hey, my server is up and running! and I got a random number 16
```

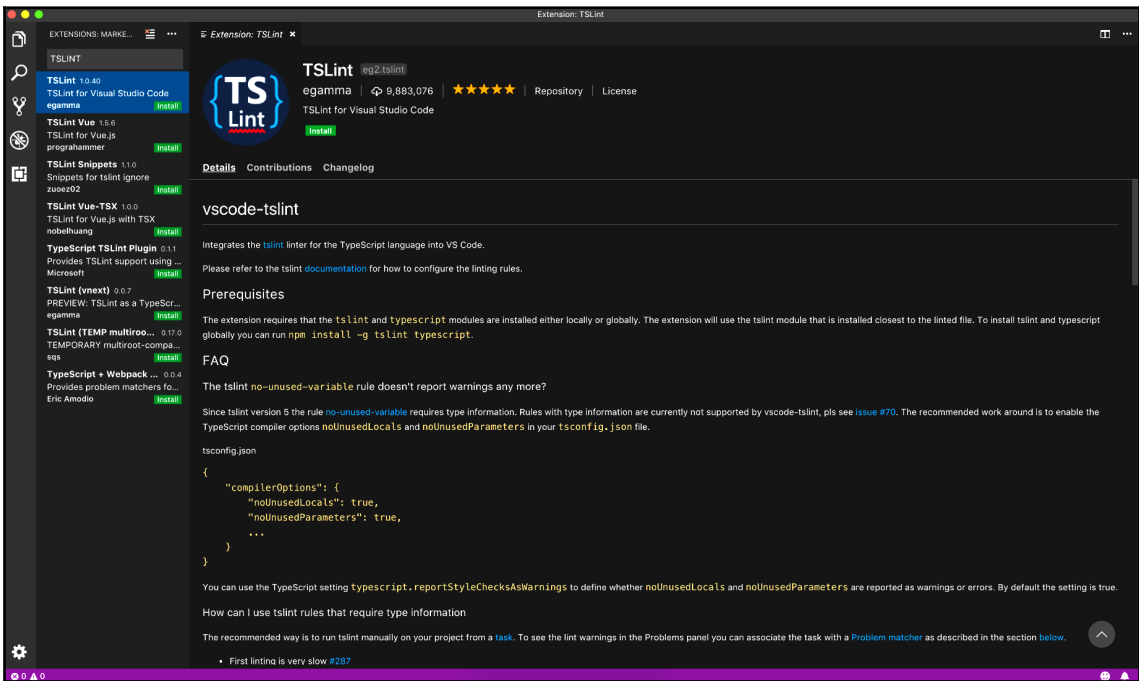
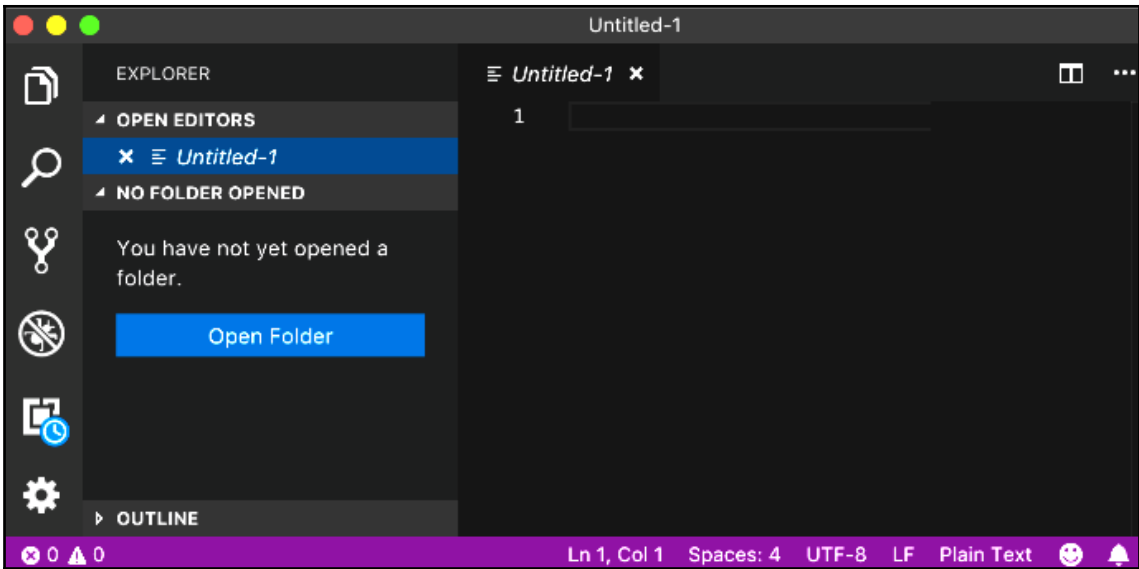
```
var express = require('express');
var app = express();

app.get('/', function(req, res, next) {
  next();
});

app.listen(3000);
```

- HTTP method for which the middleware function applies.
- Path (route) for which the middleware function applies.
- The middleware function.
- Callback argument to the middleware function, called "next" by convention.
- HTTP response argument to the middleware function, called "res" by convention.
- HTTP request argument to the middleware function, called "req" by convention.





Extension: TSLint

EXTENSIONS: MARKE... **Extension: TSLint** ✕

TSLINT

TSLint 1.0.40
TSLint for Visual Studio Code
egamma [Reload](#) [Settings](#)

TSLint Vue 1.5.6
TSLint for Vue.js
programhamer [Install](#)

TSLint Snippets 1.1.0
Snippets for tslint ignore
zueez02 [Install](#)

TSLint Vue-TSX 1.0.0
TSLint for Vue.js with TSX

TSLint eg2.tslint
egamma [9,883,076](#) ★★★★★ | [Repository](#) | [License](#)
TSLint for Visual Studio Code
[Reload to Activate](#) [Disable](#) [Uninstall](#)

[Details](#) [Contributions](#) [Changelog](#)

vscode-tslint

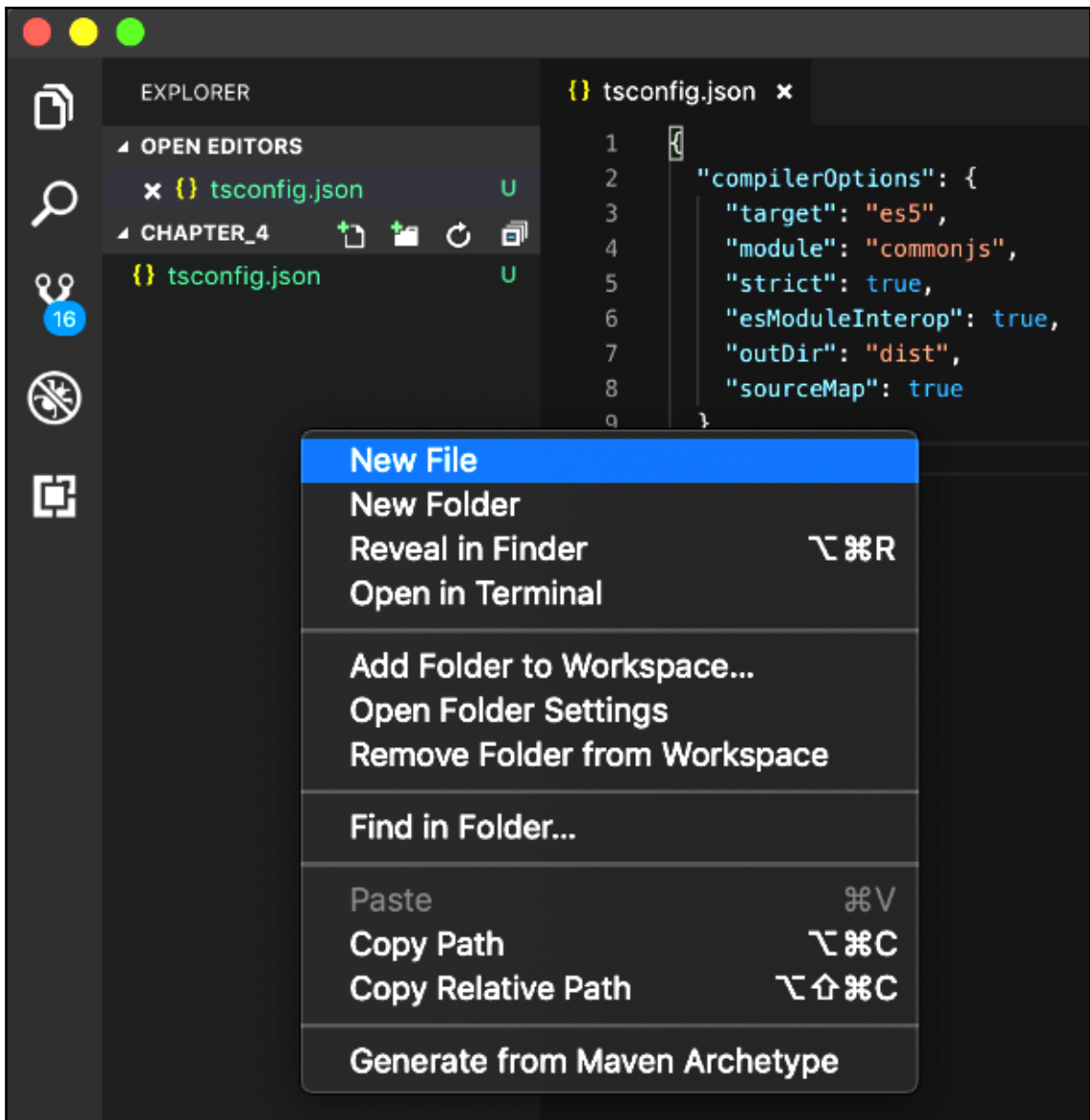
tsconfig.json — chapter_4

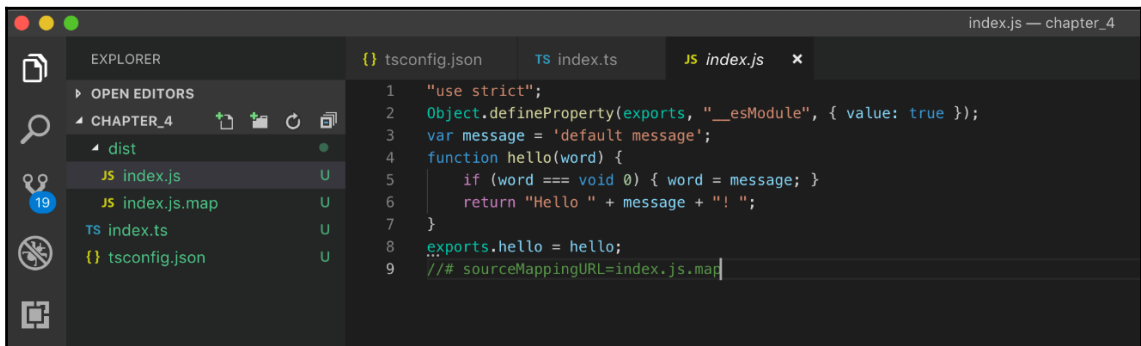
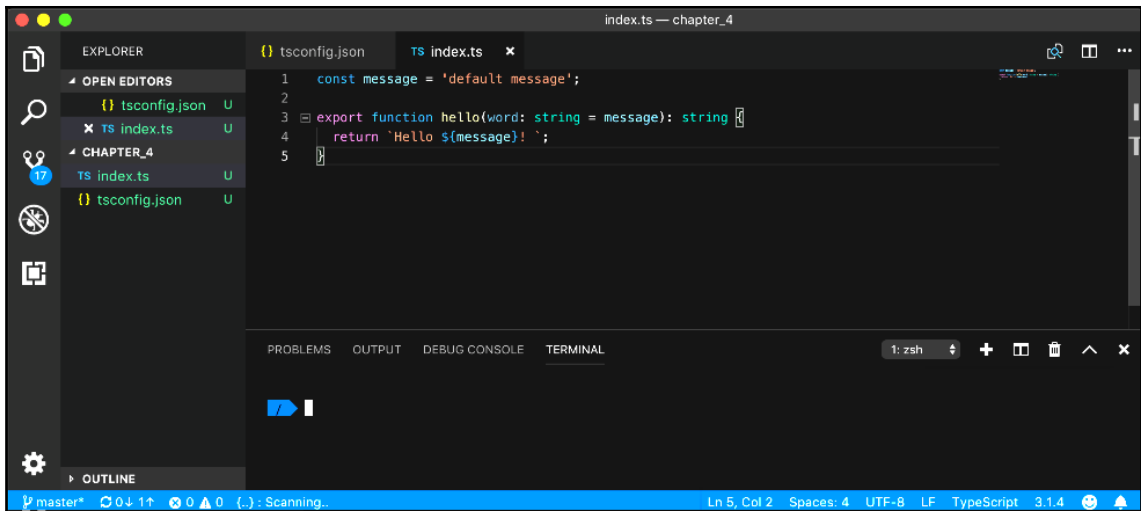
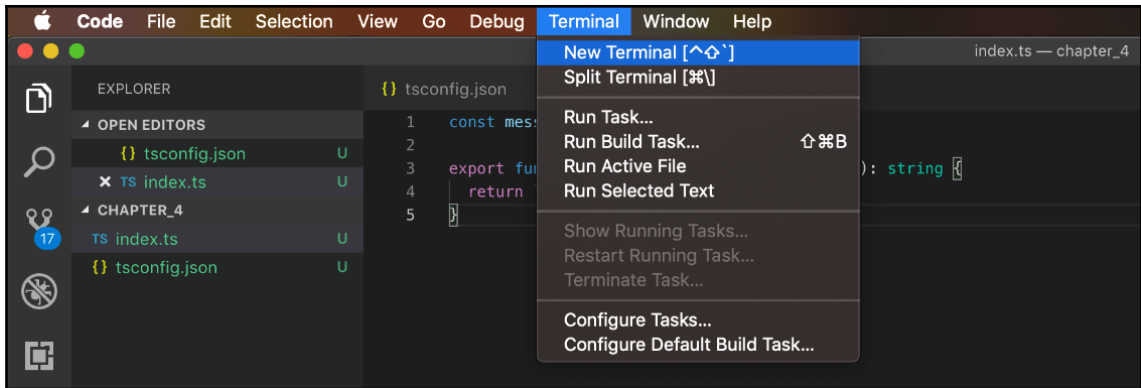
```

1 {
2   "compilerOptions": {
3     /* Basic Options */
4     "target": "es5", /* Specify ECMAScript target version: 'ES3' (default), 'ES5', 'ES2015', 'ES2016', 'ES2017', 'ES2018' or 'ESNEXT'. */
5     "module": "commonjs", /* Specify module code generation: 'none', 'commonjs', 'amd', 'system', 'umd', 'es2015', or 'ESNext'. */
6     "strict": true, /* Enable strict mode. */
7     "allowJs": true, /* Allow JavaScript files to be compiled. */
8     "checkJs": true, /* Report errors in .js files. */
9     "jsx": "react-jsx", /* Specify JSX code generation: 'preserve', 'react-native', or 'react'. */
10    "declaration": true, /* Generates corresponding '.d.ts' file. */
11    "declarationMap": true, /* Generates a sourcemap for each corresponding '.d.ts' file. */
12    "sourceMap": true, /* Generates corresponding '.map' file. */
13    "outFile": "./", /* Concatenate and emit output to single file. */
14    "outDir": "./", /* Redirect output structure to the directory. */
15    "rootDir": "./", /* Specify the root directory of input files. Use to control the output directory structure with --outDir. */
16    "composite": true, /* Enable project compilation. */
17    "removeComments": true, /* Do not emit comments to output. */
18    "noEmit": true, /* Do not emit outputs. */
19    "importHelpers": true, /* Import emit helpers from 'tslib'. */
20    "downlevelIteration": true, /* Provide full support for iterables in 'for-of', spread, and destructuring when targeting 'ES5' or 'ES3'. */
21    "isolatedModules": true, /* Transpile each file as a separate module (similar to 'ts.transpileModule'). */
22
23    /* Strict Type-Checking Options */
24    "strict": true, /* Enable all strict type-checking options. */
25    "noImplicitAny": true, /* Raise error on expressions and declarations with an implied 'any' type. */
26    "strictNullChecks": true, /* Enable strict null checks. */
27    "strictFunctionTypes": true, /* Enable strict checking of function types. */
28    "strictBindCallApply": true, /* Enable strict 'bind', 'call', and 'apply' methods on functions. */
29    "strictPropertyInitialization": true, /* Enable strict checking of property initialization in classes. */
30    "noImplicitThis": true, /* Raise error on 'this' expressions with an implied 'any' type. */
31    "alwaysStrict": true, /* Parse in strict mode and emit "use strict" for each source file. */
32
33    /* Additional Checks */
34    "noUnusedLocals": true, /* Report errors on unused locals. */
35    "noUnusedParameters": true, /* Report errors on unused parameters. */
36    "noImplicitReturns": true, /* Report error when not all code paths in function return a value. */
37    "noFallthroughCasesInSwitch": true, /* Report errors for fallthrough cases in switch statement. */
38
39    /* Module Resolution Options */
40    "moduleResolution": "node", /* Specify module resolution strategy: 'node' (Node.js) or 'classic' (TypeScript pre-1.6). */
41    "baseUrl": "./", /* Base directory to resolve non-absolute module names. */
42    "paths": {}, /* A series of entries which re-map imports to lookup locations relative to the 'baseUrl'. */
43    "rootDir": ".", /* List of root folders whose combined content represents the structure of the project at runtime. */
44    "typeRoots": [], /* List of folders to include type definitions from. */
45    "types": [], /* Type declaration files to be included in compilation. */
46    "allowSyntheticDefaultImports": true, /* Allow default imports from modules with no default export. This does not affect code emit, just typechecking. */
47    "moduleInterop": true, /* Enables emit interoperability between CommonJS and ES Modules via creation of namespace objects for all imports. Implies 'allowSyntheticDefaultImports'. */
48    "preserveSymlinks": true, /* Do not resolve the real path of symlinks. */
49
50    /* Source Map Options */
51    "sourceRoot": "", /* Specify the location where debugger should locate TypeScript files instead of source locations. */
52    "mapRoot": "", /* Specify the location where debugger should locate map files instead of generated locations. */
53    "inlineSourceMap": true, /* Emit a single file with source maps instead of having a separate file. */
54    "inlineSources": true, /* Emit the source alongside the sourcemaps within a single file; requires '--inlineSourceMap' or '--sourceMap' to be set. */
55
56    /* Experimental Options */
57    "experimentalDecorators": true, /* Enables experimental support for ES7 decorators. */
58    "emitDecoratorMetadata": true, /* Enables experimental support for emitting type metadata for decorators. */
59
60  }

```

LE 15, Col 34 Success 2 UTF-8 LF JSON with Comments





TS index.ts ✕

[tslint] ' should be " [quotemark]

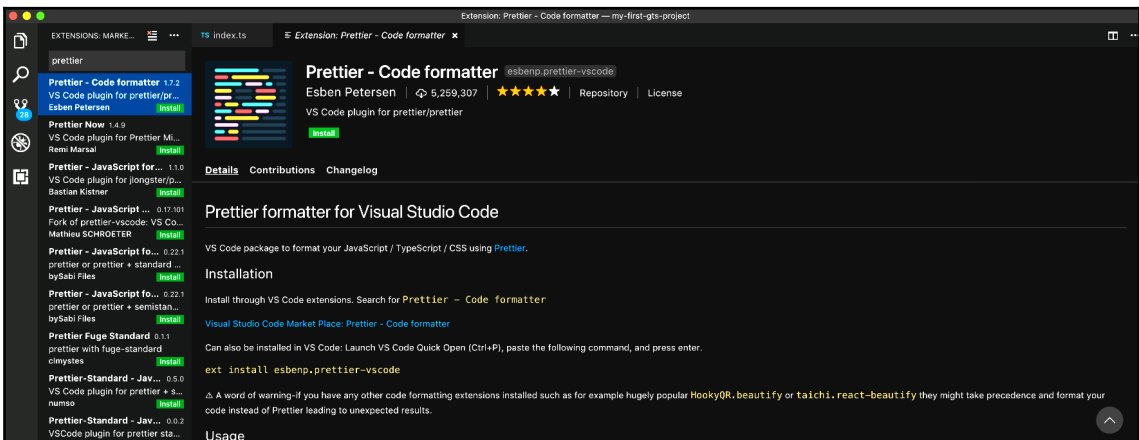
```
1  const message = 'default message';  
2  
3  export function hello(word: string = message): string {  
4    return `Hello ${message}! `;  
5  }
```

TS index.ts ✕

```
1  const message = 'default message';  
2  
3  export function hello(word: string = message): string {  
4    [tslint] file should end with a newline [eofline]  
5  }
```

```
1 {
2   "name": "",
3   "version": "0.0.0",
4   "description": "",
5   "main": "build/src/index.js",
6   "types": "build/src/index.d.ts",
7   "files": [
8     "build/src"
9  ],
10  "license": "Apache-2.0",
11  "keywords": [],
12  "scripts": {
13    "test": "echo \\\"Error: no test specified\\\" && exit 1",
14    "check": "gts check",
15    "clean": "gts clean",
16    "compile": "tsc -p .",
17    "fix": "gts fix",
18    "prepare": "npm run compile",
19    "pretest": "npm run compile",
20    "posttest": "npm run check"
21  },
22  "devDependencies": {
23    "gts": "^0.9.0",
24    "typescript": "~3.1.0"
25  }
26 }
27
```

```
▶ build ●
◀ src ●
  TS index.ts U
  .clang-format U
  {} package-lock.json
  {} package.json U
  {} tsconfig.json U
  {} tslint.json U
```



TS index.ts Settings x User Settings

Search settings 798 Settings Found

User Settings Workspace Settings

Commonly Used

- Text Editor
- Workbench
- Window
- Features
- Application
- Extensions

Commonly Used

Files: Auto Save
Controls auto save of dirty files. Read more about autosave [here](#).

onFocusChange

Files: Auto Save Delay
Controls the delay in ms after which a dirty file is saved automatically. Only applies when Files: Auto Save is set to afterDelay.

1000

Show modified settings
Open settings.json

All files - Stryker report

All files

File / Directory	Mutation score	# Killed	# Survived	# Timeout	# No coverage	# Runtime errors	# Transpile errors	Total detected	Total undetected	Total mutants
All files	40.00 %	2	0	0	3	0	5	2	3	10
Queue.ts	40.00 %	2	0	0	3	0	5	2	3	10

Generated with stryker-html-reporter generator. Visit the [Stryker website](#)

Queue.ts - Stryker report



All files / Queue.ts

File / Directory	Mutation score	# Killed	# Survived	# Timeout	# No coverage	# Runtime errors	# Transpile errors	Total detected	Total undetected	Total mutants
Queue.ts	40.00%	2	0	0	3	0	5	2	3	10

NoCoverage (3) Killed (2) TranspileError (5) [Expand all](#)

```
export class Queue<T> {
  _store: T[] = [];

  constructor(initialData: Array<T> = []) {
    this._store.push(...initialData)
  }

  push(val: T) {
    this._store.push(val);
  }

  pop(): T | undefined {
    return this._store.shift();
  }

  isEmpty(): boolean {
    return this._store.length === 0;
  }

  size(): number {
    return this._store.length;
  }
}
```

#	Mutator	State	Location	Original	Replacement
0	ArrayLiteral	TranspileError	2 : 18	[]	[' ... ']
1	ArrayLiteral	TranspileError	4 : 40	[]	[' ... ']
2	Block	Killed	4 : 44	{ ... }	{}
3	Block	Killed	8 : 17	{ ... }	{}
4	Block	TranspileError	12 : 25	{ ... }	{}
5	Block	TranspileError	16 : 23	{ ... }	{}
6	ConditionalExpression	NoCoverage	17 : 15	... ===	
7	ConditionalExpression	NoCoverage	17 : 15	... ===	
8	BinaryExpression	NoCoverage	17 : 34	===	!===
9	Block	TranspileError	20 : 19	{ ... }	{}

Generated with stryker-html-reporter generator. Visit the [Stryker website](#)

All files - Stryker report



All files

File / Directory	Mutation score	# Killed	# Survived	# Timeout	# No coverage	# Runtime errors	# Transpile errors	Total detected	Total undetected	Total mutants
All files	80.00%	4	1	0	0	0	5	4	1	10
Queue.ts	80.00%	4	1	0	0	0	5	4	1	10

Generated with stryker-html-reporter generator. Visit the [Stryker website](#)

Queue.ts - Stryker report



All files / Queue.ts

File / Directory	Mutation score	# Killed	# Survived	# Timeout	# No coverage	# Runtime errors	# Transpile errors	Total detected	Total undetected	Total mutants
Queue.ts	80.00%	4	1	0	0	0	5	4	1	10

Survived (1)
 Killed (4)
 TranspileError (5)
 [Expand all](#)

```

export class Queue<T> {
  _store: T[] = [];

  constructor(initialData: Array<T> = []) {
    this._store.push(...initialData)
  }

  push(val: T) {
    this._store.push(val);
  }

  pop(): T | undefined {
    return this._store.shift();
  }

  isEmpty(): boolean {
    return this._store.length === 0;
  }
}
    
```

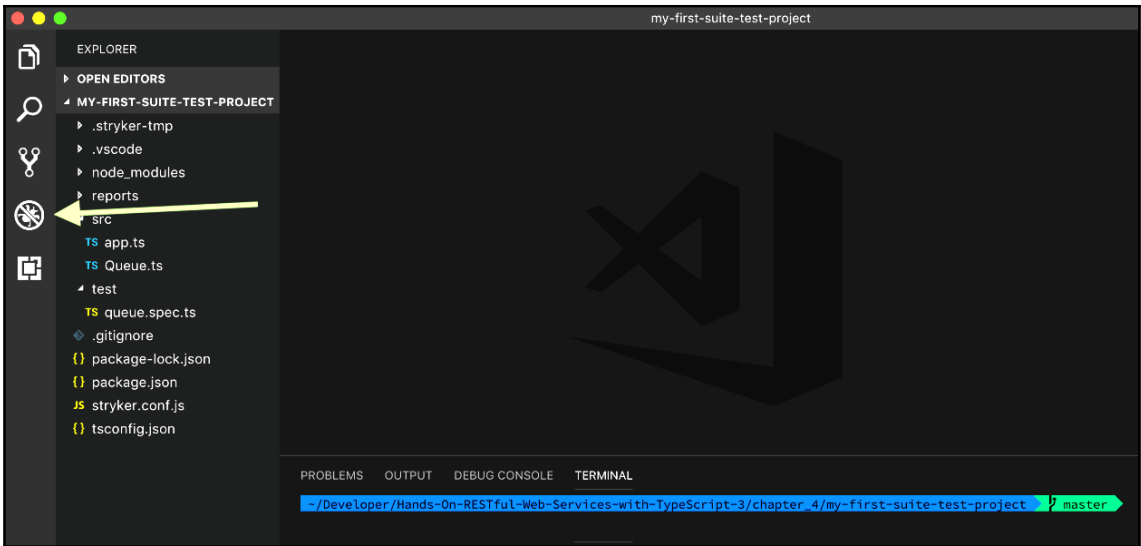
#	Mutator	State	Location	Original	Replacement
0	ArrayLiteral	TranspileError	2:18	[]	[' ... ']
1	ArrayLiteral	TranspileError	4:40	[]	[' ... ']
2	Block	Killed	4:44	{ ... }	{}
3	Block	Killed	8:17	{ ... }	{}
4	Block	TranspileError	12:25	{ ... }	{}
5	Block	TranspileError	16:23	{ ... }	{}
6	ConditionalExpression	Killed	17:15 ===	
7	ConditionalExpression	Survived	17:15 ===	
8	BinaryExpression	Killed	17:34	===	!===
9	Block	TranspileError	20:19	{ ... }	{}

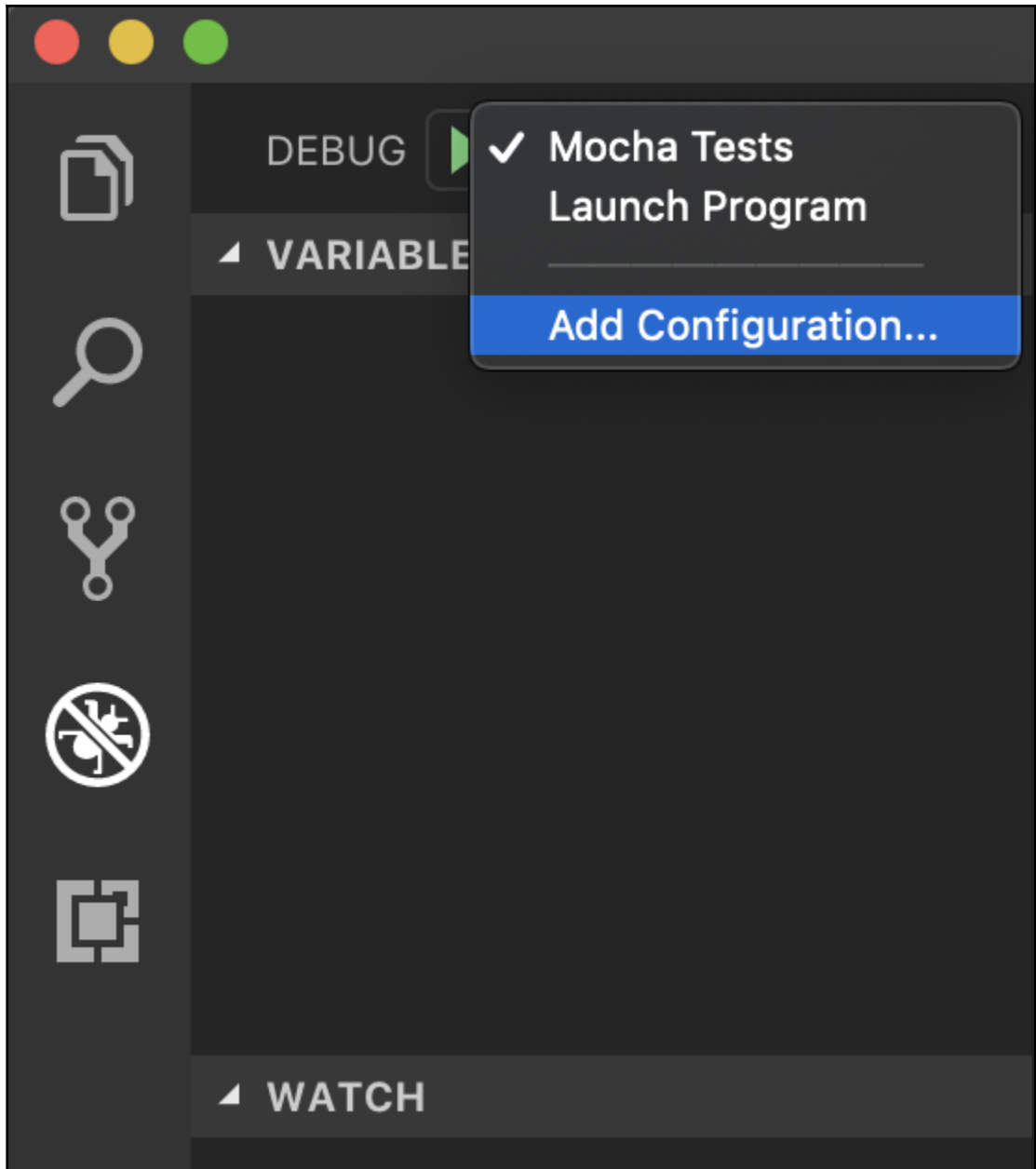
All files - Stryker report

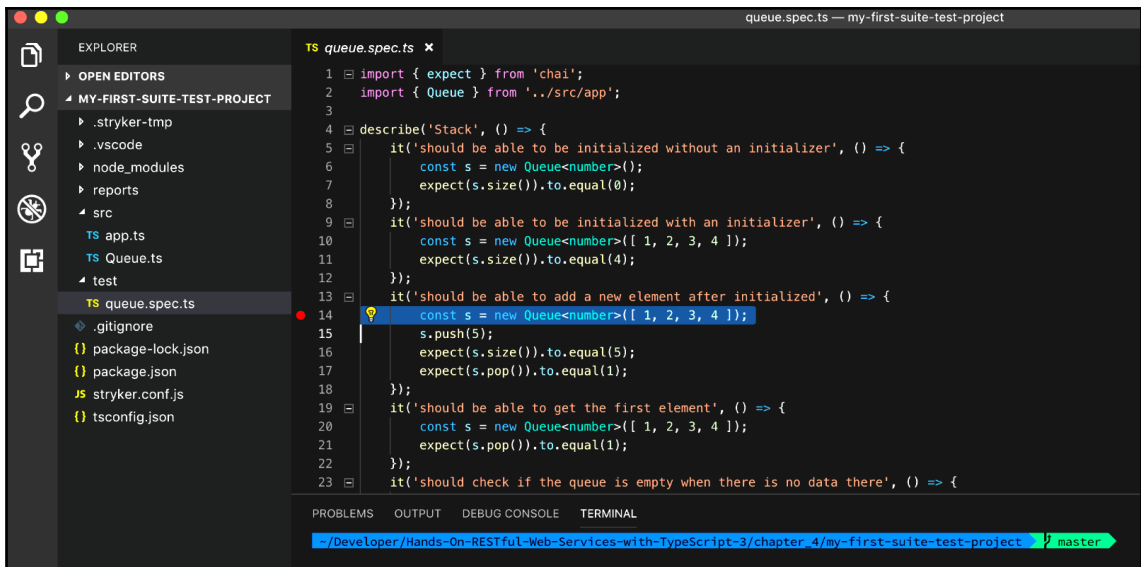
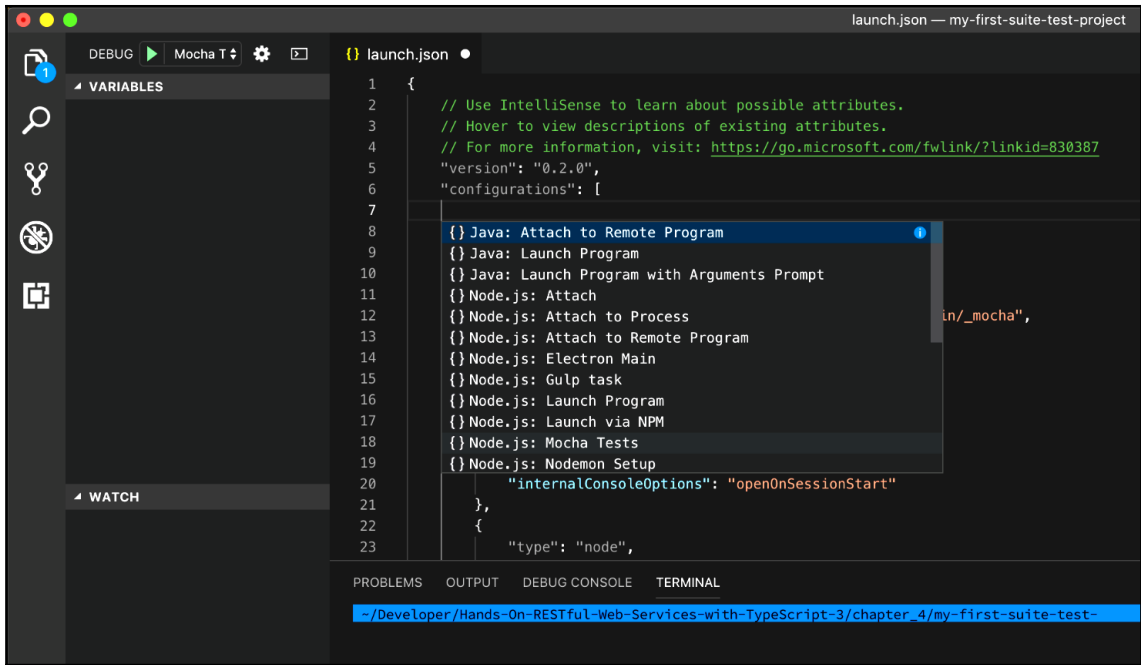


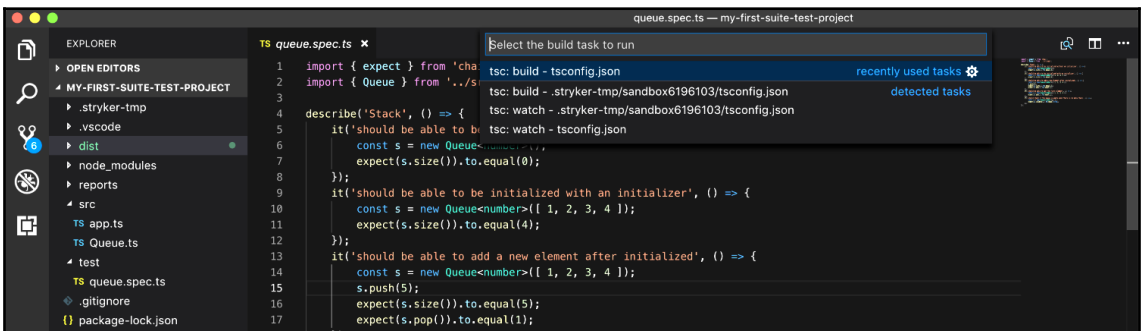
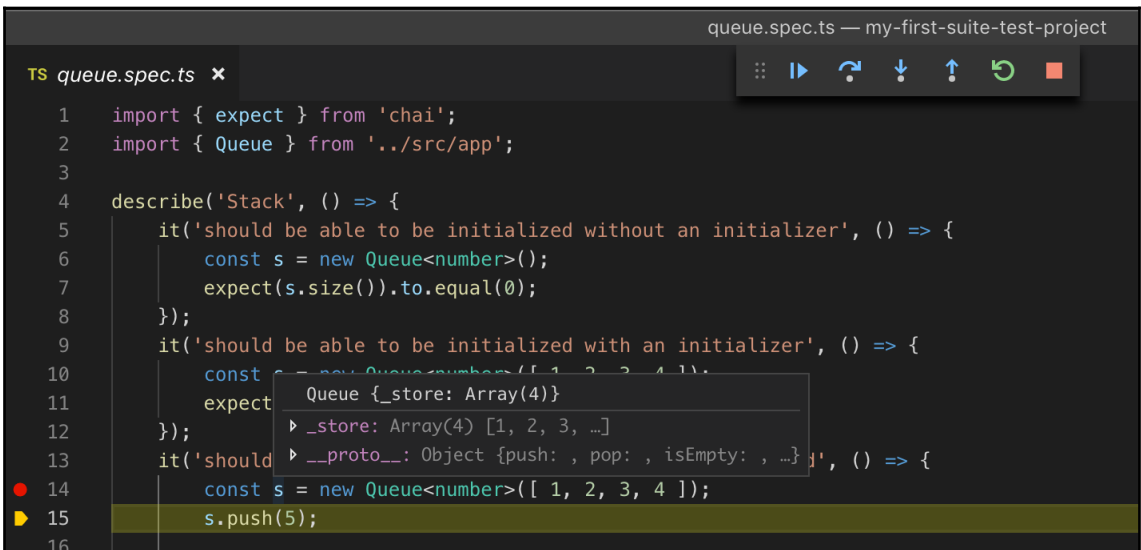
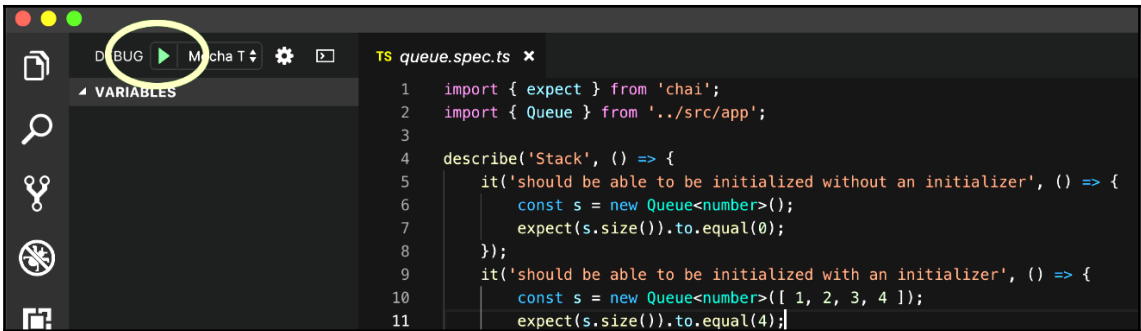
All files

File / Directory	Mutation score	# Killed	# Survived	# Timeout	# No coverage	# Runtime errors	# Transpile errors	Total detected	Total undetected	Total mutants
All files	100.00%	2	0	0	0	3	5	2	0	10
Queue.ts	100.00%	2	0	0	0	3	5	2	0	10










Chapter 5: Building Your First API

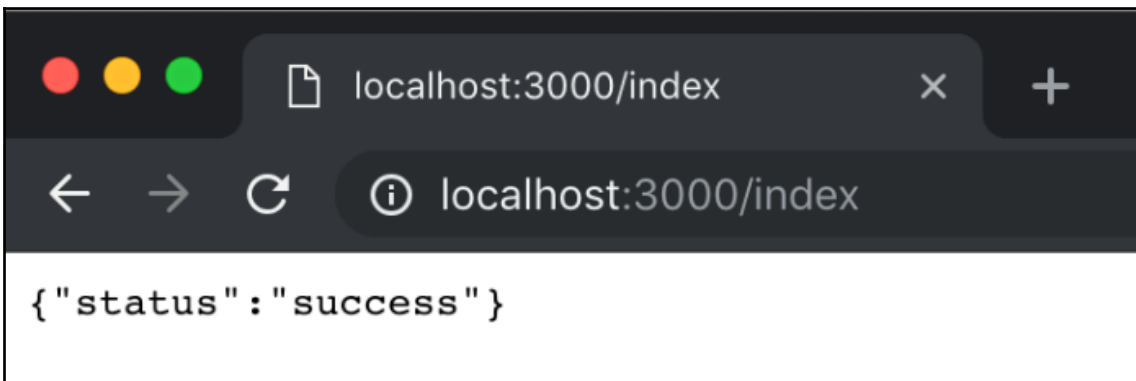
```
▲ order-api ●
  {} .prettierrc U
  {} package.json U
  JS stryker.conf.js U
  {} tsconfig.json 1, U
  {} tslint.json U
```

All files - Stryker report 

All files

File / Directory	Mutation score	# Killed	# Survived	# Timeout	# No coverage	# Runtime errors	# Transpile errors	Total detected	Total undetected	Total mutants
All files	<div style="width: 100%;"><div style="width: 100%;"></div></div> 100.00%	5	0	1	0	2	0	6	0	8
app.ts	<div style="width: 100%;"><div style="width: 100%;"></div></div> 100.00%	1	0	0	0	2	0	1	0	3
routes/index.ts	<div style="width: 100%;"><div style="width: 100%;"></div></div> 100.00%	4	0	1	0	0	0	5	0	5

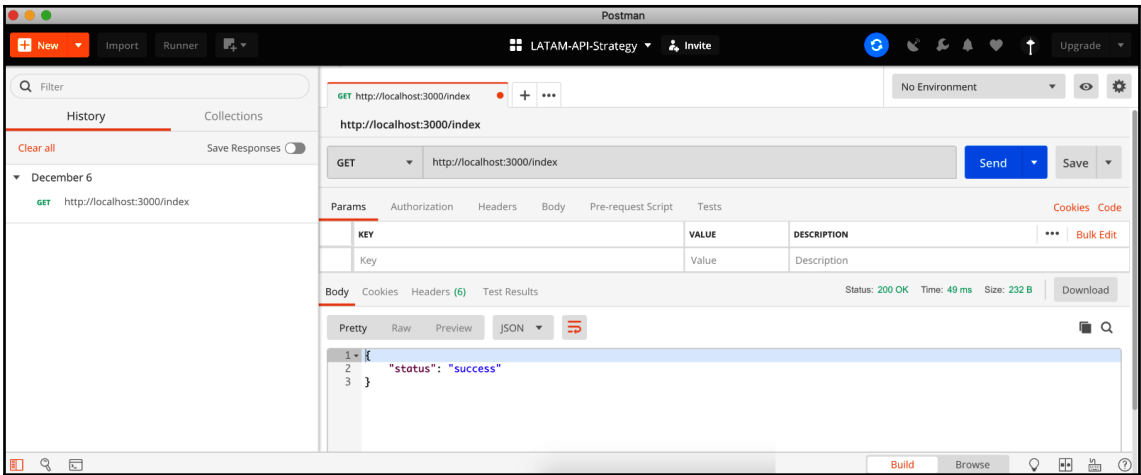
Generated with stryker-html-reporter generator. Visit the [Stryker website](#)



localhost:3000/index

localhost:3000/index

```
{"status": "success"}
```

Chapter 6: Handling Requests and Responses

store		Access to store orders	▼
GET	/store/inventory	Returns pet inventories from the store	🔒
POST	/store/orders	Place an order for a pet	🔒
GET	/store/orders/{orderId}	Find purchase order by ID	🔒
DELETE	/store/orders/{orderId}	Delete purchase order by ID	🔒
user		Operations about user	Find out more about our store: http://Swagger.io ▼
POST	/users	Create user	🔒
GET	/users/login	Logs user into the system	
GET	/users/logout	Logs out current logged in user session	
GET	/users/{username}	Get user by user name	🔒
PATCH	/users/{username}	Updated user	🔒
DELETE	/users/{username}	Delete user	🔒

```
└─┬ order-api
  │  └─ dist
  │    └─ node_modules
  │      └─ reports
  │        └─ src
  │          └─ model
  │            └─ TS order.ts
  │              └─ TS orderStatus.ts
  │                └─ TS user.ts
  │          └─ routes
  │            └─ TS app.ts
  │              └─ TS server.ts
  │          └─ test
  │            └─ .gitignore
  │              └─ {} .prettierrc
  │                └─ {} package-lock.json
  │                  └─ {} package.json
  │                    └─ JS stryker.conf.js
  │                      └─ {} tsconfig.json
  │                        └─ {} tslint.json
```

```
└─ order-api
  ├── .stryker-tmp
  ├── dist
  ├── node_modules
  ├── reports
  └─ src
    ├── controllers
    │   ├── api.ts
    │   ├── order.ts
    │   └── user.ts
    ├── models
    │   ├── order.ts
    │   ├── orderStatus.ts
    │   └── user.ts
    ├── routes
    │   ├── app.ts
    │   └── server.ts
    └─ test
      ├── routes
      │   ├── api.spec.ts
      │   ├── index.spec.ts
      │   ├── order.spec.ts
      │   └── user.spec.ts
      ├── mocha.opts
      ├── .gitignore
      ├── .prettierrc
      ├── package-lock.json
      ├── package.json
      ├── stryker.conf.js
      ├── tsconfig.json
      └── tslint.json
```

All files - Stryker report



All files

File / Directory	Mutation score		# Killed	# Survived	# Timeout	# No coverage	# Runtime errors	# Transpile errors	Total detected	Total undetected	Total mutants
All files	80.56 %	80.56	77	21	10	0	20	0	87	21	128
controller/	79.31 %	79.31	60	18	9	0	18	0	69	18	105
routes/	100.00 %	100.00	16	0	1	0	0	0	17	0	17
app.ts	100.00 %	100.00	1	0	0	0	2	0	1	0	3
model/orderStatus.ts	0.00 %	0.00	0	3	0	0	0	0	0	3	3

Generated with stryker-html-reporter generator. Visit the [Stryker website](#)

http://localhost:3000/users

POST http://localhost:3000/users Send Save

Params Authorization Headers (1) **Body** Pre-request Script Tests Cookies Code

none
 form-data
 x-www-form-urlencoded
 raw
 binary
 JSON (application/json)
Beautiful

```

1 {
2   "username": "jose",
3   "firstName": "test",
4   "lastName": "test",
5   "email": "test",
6   "password": "test",
7   "phone": "2343432"
8 }

```

Body Cookies Headers (6) Test Results Status: 201 Created Time: 77 ms Size: 348 B Download

Pretty Raw Preview
JSON
≡
🔍

```

1 {
2   "id": 92,
3   "username": "jose",
4   "firstName": "test",
5   "lastName": "test",
6   "email": "test",
7   "password": "test",
8   "phone": "2343432",
9   "userStatus": 1
10 }

```

http://localhost:3000/users/jose

GET http://localhost:3000/users/jose Send Save

Params Authorization Headers Body Pre-request Script Tests Cookies Code

KEY	VALUE	DESCRIPTION
Key	Value	Description

Body Cookies Headers (6) Test Results Status: 200 OK Time: 29 ms Size: 343 B Download

Pretty Raw Preview JSON ≡

```

1 {
2   "id": 92,
3   "username": "jose",
4   "firstName": "test",
5   "lastName": "test",
6   "email": "test",
7   "password": "test",
8   "phone": "2343432",
9   "userStatus": 1
10 }

```

http://localhost:3000/users/john

PATCH http://localhost:3000/users/john Send Save

Params Authorization Headers (1) **Body** Pre-request Script Tests Cookies Code

none form-data x-www-form-urlencoded raw binary JSON (application/json) Beautify

```

1 {
2   "phone": "7777777"
3 }

```

Cookies Headers (3) Test Results Status: 204 No Content Time: 12 ms Size: 111 B

Pretty Raw Preview Auto ≡

```

1

```

http://localhost:3000/users/john

GET http://localhost:3000/users/john Send Save

Params Authorization Headers Body Pre-request Script Tests Cookies Code

KEY	VALUE	DESCRIPTION
Key	Value	Description

Body Cookies Headers (6) Test Results Status: 200 OK Time: 4 ms Size: 351 B Download

Pretty Raw Preview JSON ↺

```

1 {
2   "id": 77,
3   "username": "john",
4   "firstName": "john",
5   "lastName": "doe",
6   "email": "john@jhon.com",
7   "password": "jhon",
8   "phone": "7777777",
9   "userStatus": 1
10 }

```

http://localhost:3000/users/jose

DELETE http://localhost:3000/users/jose Send Save

Params Authorization Headers Body Pre-request Script Tests Cookies Code

KEY	VALUE	DESCRIPTION
Key	Value	Description

Body Cookies Headers (3) Test Results Status: 204 No Content Time: 25 ms Size: 111 B

Pretty Raw Preview Auto ↺

```

1

```

http://localhost:3000/users/jose

GET http://localhost:3000/users/jose Send Save

Params Authorization Headers Body Pre-request Script Tests Cookies Code

KEY	VALUE	DESCRIPTION
Key	Value	Description

Body Cookies Headers (4) Test Results Status: 404 Not Found Time: 5 ms Size: 129 B

Pretty Raw Preview Auto

```
1
```

http://localhost:3000/store/orders

POST http://localhost:3000/store/orders Send Save

Params Authorization Headers (1) Body Pre-request Script Tests Cookies Code

none
 form-data
 x-www-form-urlencoded
 raw
 binary
 JSON (application/json)
 Beautify

```

1 {
2   "userId": 75,
3   "quantity": 10,
4   "shipDate": "2018-12-17T01:52:19.458Z"
5 }
  
```

Body Cookies Headers (6) Test Results Status: 201 Created Time: 40 ms Size: 326 B Download

Pretty Raw Preview JSON

```

1 {
2   "id": 31,
3   "userId": 75,
4   "quantity": 10,
5   "shipDate": "2018-12-17T01:52:19.458Z",
6   "status": "PLACED",
7   "complete": false
8 }
  
```



```
GET http://localhost:3000/store/inventory Send Save
Pretty Raw Preview JSON
1 {
2   "75": [
3     {
4       "id": 31,
5       "userId": 75,
6       "quantity": 10,
7       "shipDate": "2018-12-17T01:52:19.458Z",
8       "status": "PLACED",
9       "complete": false
10    },
11   {
12     "id": 88,
13     "userId": 75,
14     "quantity": 5,
15     "shipDate": "2018-12-05T01:52:19.458Z",
16     "status": "PLACED",
17     "complete": false
18   }
19 ],
20   "77": [
21     {
22       "id": 13,
23       "userId": 77,
24       "quantity": 5,
25       "shipDate": "2018-12-15T01:52:19.458Z",
26       "status": "PLACED",
27       "complete": false
28     }
29 ]
30 }
```

http://localhost:3000/store/orders/13

GET http://localhost:3000/store/orders/13 Send Save

Params Authorization Headers Body Pre-request Script Tests Cookies Code

KEY	VALUE	DESCRIPTION
Key	Value	Description

Body Cookies Headers (6) Test Results Status: 200 OK Time: 23 ms Size: 320 B Download

Pretty Raw Preview JSON ≡

```

1 {
2   "id": 13,
3   "userId": 77,
4   "quantity": 5,
5   "shipDate": "2018-12-15T01:52:19.458Z",
6   "status": "PLACED",
7   "complete": false
8 }

```

http://localhost:3000/store/orders/13

DELETE http://localhost:3000/store/orders/13 Send Save

Params Authorization Headers Body Pre-request Script Tests Cookies Code

KEY	VALUE	DESCRIPTION
Key	Value	Description

Body Cookies Headers (3) Test Results Status: 204 No Content Time: 10 ms Size: 111 B

Pretty Raw Preview Auto ≡

```

1

```

http://localhost:3000/store/orders/13

GET http://localhost:3000/store/orders/13 Send Save

Params Authorization Headers Body Pre-request Script Tests Cookies Code

KEY	VALUE	DESCRIPTION	...	Bulk Edit
Key	Value	Description		

Body Cookies Headers (4) Test Results Status: 404 Not Found Time: 6 ms Size: 129 B

Pretty Raw Preview Auto ≡ 📄 🔍

```
1
```

http://localhost:3000/api

GET http://localhost:3000/api Send Save

Params Authorization Headers Body Pre-request Script Tests Cookies Code

KEY	VALUE	DESCRIPTION	...	Bulk Edit
Key	Value	Description		

Body Cookies Headers (6) Test Results Status: 200 OK Time: 14 ms Size: 233 B Download

Pretty Raw Preview JSON ≡ 📄 🔍

```
1 {
2   "title": "Order API"
3 }
```

http://localhost:3000/store/inventory?status=PLACED

GET http://localhost:3000/store/inventory?status=PLACED Send Save

Params Authorization Headers Body Pre-request Script Tests Cookies Code

KEY	VALUE	DESCRIPTION	...	Bulk Edit
<input checked="" type="checkbox"/> status	PLACED			
Key	Value	Description		

Body Cookies Headers (6) Test Results Status: 200 OK Time: 14 ms Size: 545 B Download

Pretty Raw Preview JSON

```
1 {
2   "75": [
3     {
4       "id": 68,
5       "userId": 75,
6       "quantity": 5,
7       "shipDate": "2018-12-05T01:52:19.458Z",
8       "status": "PLACED",
9       "complete": false
10    },
11   {
12     "id": 53,
13     "userId": 75,
14     "quantity": 5,
15     "shipDate": "2018-12-05T01:52:19.458Z",
16     "status": "PLACED",
17     "complete": false
18   },
19   {
20     "id": 3,
21     "userId": 75,
22     "quantity": 5,
23     "shipDate": "2018-12-05T01:52:19.458Z",
24     "status": "PLACED",
25     "complete": false
26   }
27 ]
28 }
```

http://localhost:3000/store/inventory?status=APPROVED

GET http://localhost:3000/store/inventory?status=APPROVED Send Save

Params Authorization Headers Body Pre-request Script Tests Cookies Code

KEY	VALUE	DESCRIPTION	...
<input checked="" type="checkbox"/> status	APPROVED		Bulk Edit
Key	Value	Description	

Body Cookies Headers (6) Test Results Status: 200 OK Time: 18 ms Size: 212 B Download

Pretty Raw Preview JSON

```
1 {}
```

http://localhost:3000/store/orders

GET http://localhost:3000/store/orders Send Save

Params Authorization Headers (1) Body ● Pre-request Script Tests Cookies Code

KEY	VALUE	DESCRIPTION	...	Bulk Edit
Key	Value	Description		

Body Cookies Headers (6) Test Results Status: 200 OK Time: 10 ms Size: 863 B Download

Pretty Raw Preview JSON []

```
1 - [
2   {
3     "id": 51,
4     "userId": 75,
5     "quantity": 5,
6     "shipDate": "2018-12-05T01:52:19.458Z",
7     "status": "PLACED",
8     "complete": false
9   },
10  {
11    "id": 20,
12    "userId": 75,
13    "quantity": 5,
14    "shipDate": "2018-12-05T01:52:19.458Z",
15    "status": "PLACED",
16    "complete": false
17  },
18  {
19    "id": 25,
20    "userId": 75,
21    "quantity": 5,
22    "shipDate": "2018-12-05T01:52:19.458Z",
23    "status": "PLACED",
24    "complete": false
25  },
26  {
27    "id": 95,
28    "userId": 75,
29    "quantity": 5,
30    "shipDate": "2018-12-05T01:52:19.458Z",
31    "status": "PLACED",
32    "complete": false
33  },
34  {
```

http://localhost:3000/store/orders?limit=2&offset=4

GET http://localhost:3000/store/orders?limit=2&offset=4 Send Save

Params Authorization **Headers (1)** Body Pre-request Script Tests Cookies Code

KEY	VALUE	...	Bulk Edit	Presets
<input checked="" type="checkbox"/> Content-Type	application/json			
Key	Value			

Cookies Headers (6) Test Results Status: 200 OK Time: 5 ms Size: 430 B Download

Pretty Raw Preview JSON ≡ 🔍

```
1 [
2   {
3     "id": 57,
4     "userId": 75,
5     "quantity": 5,
6     "shipDate": "2018-12-05T01:52:19.458Z",
7     "status": "PLACED",
8     "complete": false
9   },
10  {
11    "id": 43,
12    "userId": 75,
13    "quantity": 5,
14    "shipDate": "2018-12-05T01:52:19.458Z",
15    "status": "PLACED",
16    "complete": false
17  }
18 ]
```

Chapter 7: Formatting the API - Output

http://localhost:3000/store/orders

GET http://localhost:3000/store/orders Send Save

Params Authorization **Headers (1)** Body Pre-request Script Tests Cookies Code

KEY	VALUE	...	Bulk Edit	Presets
<input checked="" type="checkbox"/> Accept	application/javascript			
Key	Value			

http://localhost:3000/store/orders

GET http://localhost:3000/store/orders Send Save

Params Authorization **Headers (1)** Body Pre-request Script Tests Cookies Code

KEY	VALUE	...	Bulk Edit	Presets
<input checked="" type="checkbox"/> Accept	application/javascript			
Key	Value			

Body Cookies Headers (5) Test Results Status: 406 Not Acceptable Time: 16 ms Size: 148 B

Pretty Raw Preview Auto ≡ 🔍

http://localhost:3000/store/orders

GET http://localhost:3000/store/orders Send Save

Params Authorization **Headers (1)** Body Pre-request Script Tests Cookies Code

KEY	VALUE	...	Bulk Edit	Presets
<input checked="" type="checkbox"/> Accept	application/xml			
Key	Value			

Body Cookies Headers (5) Test Results Status: 406 Not Acceptable Time: 16 ms Size: 148 B

Pretty Raw Preview Auto ≡ 🔍

1 |

http://localhost:3000/users/Mary?firstname=jane

GET http://localhost:3000/users/Mary?firstname=jane Send Save

Params ● Authorization **Headers (1)** Body Pre-request Script Tests Cookies Code

KEY	VALUE
<input checked="" type="checkbox"/> Accept	application/xml
Key	Value

Body Cookies Headers (7) Test Results Status: 200 OK Time: 17 ms Size: 497 B Download

Pretty Raw Preview XML ≡

```

1 <?xml version='1.0'?>
2 <user>
3   <id>85</id>
4   <username>Mary</username>
5   <firstName>Mary</firstName>
6   <lastName>Jane</lastName>
7   <email>mary@jane.com</email>
8   <password>maryjane</password>
9   <phone>34343434</phone>
10  <userStatus>1</userStatus>
11 </user>

```

http://localhost:3000/users/Mary?firstname=jane

GET http://localhost:3000/users/Mary?firstname=jane Send Save

Params ● Authorization **Headers (1)** Body Pre-request Script Tests Cookies Code

KEY	VALUE
<input checked="" type="checkbox"/> Accept	application/json
Key	Value

Body Cookies Headers (7) Test Results Status: 200 OK Time: 12 ms Size: 371 B Download

Pretty Raw Preview JSON ≡

```

1 {
2   "id": 85,
3   "username": "Mary",
4   "firstName": "Mary",
5   "lastName": "Jane",
6   "email": "mary@jane.com",
7   "password": "maryjane",
8   "phone": "34343434",
9   "userStatus": 1
10 }

```

http://localhost:3000/users/Mary?firstname=jane

GET http://localhost:3000/users/Mary?firstname=jane Send Save

Params Authorization **Headers (1)** Body Pre-request Script Tests Cookies Code

KEY	VALUE	...	Bulk Edit	Presets
<input checked="" type="checkbox"/> Accept	application/pdf			
Key	Value			

Body Cookies Headers (5) Test Results Status: 406 Not Acceptable Time: 12 ms Size: 148 B

Pretty Raw Preview Auto ⌵ 🔍

```
1
```

http://localhost:3000/store/orders

POST http://localhost:3000/store/orders Send Save

Params Authorization Headers (2) **Body** Pre-request Script Tests Cookies Code

none
 form-data
 x-www-form-urlencoded
 raw
 binary
 JSON (application/json)
Beautify

```

1 {
2   "userId": 75,
3   "quantity": 5,
4   "shipDate": "2018-12-05T01:52:19.458Z"
5 }

```

Body Cookies Headers (7) Test Results Status: 201 Created Time: 46 ms Size: 339 B Download

Pretty Raw Preview JSON ⌵ 🔍

```

1 {
2   "id": 62,
3   "userId": 75,
4   "quantity": 5,
5   "shipDate": "2018-12-05T01:52:19.458Z",
6   "status": "PLACED",
7   "complete": false
8 }

```

http://localhost:3000/store/orders/62

GET http://localhost:3000/store/orders/62 Send Save

Params Authorization **Headers (1)** Body Pre-request Script Tests Cookies Code

KEY	VALUE	...	Bulk Edit	Presets
<input type="checkbox"/> Accept	application/xml			
Key	Value			

Body Cookies Headers (7) Test Results Status: 200 OK Time: 3 ms Size: 380 B Download

Pretty Raw Preview JSON ⌵

```

1  {
2    "id": 62,
3    "userId": 75,
4    "quantity": 5,
5    "shipDate": "2018-12-05T01:52:19.458Z",
6    "status": "PLACED",
7    "complete": false,
8    "_links": {
9      "self": {
10       "href": "/store/orders/62"
11     }
12   }
13 }

```

http://localhost:3000/store/orders/62

GET http://localhost:3000/store/orders/62 Send Save

Params Authorization **Headers (1)** Body Pre-request Script Tests Cookies Code

KEY	VALUE	...	Bulk Edit	Presets
<input checked="" type="checkbox"/> Accept	application/xml			
Key	Value			

Body Cookies Headers (7) Test Results Status: 200 OK Time: 11 ms Size: 541 B Download

Pretty Raw Preview XML ⌵

```

1  <?xml version='1.0'?>
2  <order>
3    <id>62</id>
4    <userId>75</userId>
5    <quantity>5</quantity>
6    <shipDate>2018-12-05T01:52:19.458Z</shipDate>
7    <status>PLACED</status>
8    <complete>>false</complete>
9    <_links>
10   <self>
11     <href>/store/orders/62</href>
12   </self>
13 </_links>
14 </order>

```

http://localhost:3000/users

POST http://localhost:3000/users Send Save

Params Authorization Headers (1) **Body** Pre-request Script Tests Cookies Code

KEY	VALUE	DESCRIPTION
Key	Value	Description

Body Cookies Headers (7) Test Results Status: 201 Created Time: 59 ms Size: 415 B Download

Pretty Raw Preview **JSON**

```

1  {
2    "id": 68,
3    "username": "Mary",
4    "firstName": "Mary",
5    "lastName": "Jane",
6    "email": "mary@jane.com",
7    "password": "maryjane",
8    "phone": "34343434",
9    "userStatus": 1,
10   "_links": {
11     "self": {
12       "href": "/users/68"
13     }
14   }
15 }

```

http://localhost:3000/users/Mary?firstname=jane

GET http://localhost:3000/users/Mary?firstname=jane Send Save

Params **Authorization** Headers Body Pre-request Script Tests Cookies Code

KEY	VALUE
Key	Value

Body Cookies Headers (7) Test Results Status: 200 OK Time: 9 ms Size: 410 B Download

Pretty Raw Preview **JSON**

```

1  {
2    "id": 68,
3    "username": "Mary",
4    "firstName": "Mary",
5    "lastName": "Jane",
6    "email": "mary@jane.com",
7    "password": "maryjane",
8    "phone": "34343434",
9    "userStatus": 1,
10   "_links": {
11     "self": {
12       "href": "/users/68"
13     }
14   }
15 }

```

POST http://localhost:3000/store/orders Send Save

```
1 {
2   "userId": 75,
3   "quantity": 5,
4   "shipDate": "2018-12-05T01:52:19.458Z"
5 }
```

Body Cookies Headers (7) Test Results Status: 201 Created Time: 50 ms Size: 413 B Download

Pretty Raw Preview JSON

```
1 {
2   "id": 61,
3   "userId": 75,
4   "quantity": 5,
5   "shipDate": "2018-12-05T01:52:19.458Z",
6   "status": "PLACED",
7   "complete": false,
8   "_links": {
9     "self": {
10      "href": "/store/orders/61"
11     },
12    "user": {
13      "href": "/users/75"
14    }
15  }
16 }
```

GET http://localhost:3000/store/orders Send Save

<input checked="" type="checkbox"/> Accept	application/xml
Key	Value

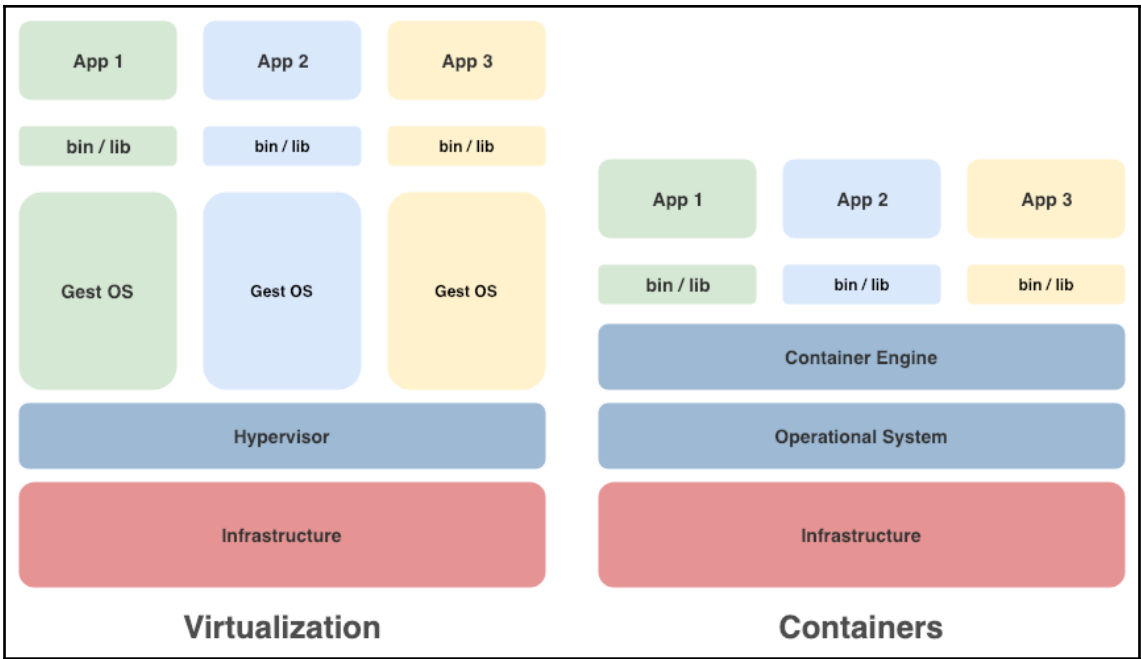
Body Cookies Headers (7) Test Results Status: 200 OK Time: 12 ms Size: 1.5 KB Download

Pretty Raw Preview XML 🔍

```
1 <?xml version='1.0'?>
2 <order>
3   <id>83</id>
4   <userId>75</userId>
5   <quantity>5</quantity>
6   <shipDate>2018-12-05T01:52:19.458Z</shipDate>
7   <status>PLACED</status>
8   <complete>false</complete>
9   <_links>
10    <self>
11     <href>/store/orders/83</href>
12    </self>
13    <user>
14     <href>/users/75</href>
15    </user>
16  </_links>
17 </order>
18 <order>
19   <id>82</id>
20   <userId>75</userId>
21   <quantity>5</quantity>
22   <shipDate>2018-12-05T01:52:19.458Z</shipDate>
23   <status>PLACED</status>
24   <complete>false</complete>
25   <_links>
26    <self>
27     <href>/store/orders/82</href>
28    </self>
29    <user>
30     <href>/users/75</href>
31    </user>
32  </_links>
33 </order>
34 <order>
35   <id>80</id>
36   <userId>75</userId>
37   <quantity>5</quantity>
38   <shipDate>2018-12-05T01:52:19.458Z</shipDate>
```

Chapter 8: Working with Databases and ODMs

The screenshot shows the MongoDB Download Center interface. At the top, there is a navigation bar with links for 'DOCS', 'LEARN', 'WHAT'S MONGODB?', 'BLOG', and 'LOGIN'. A search icon and a 'Get MongoDB' button with a download icon are also present. Below the navigation bar, the MongoDB logo and the tagline 'FOR GIANT IDEAS' are displayed on the left, while 'SOLUTIONS', 'CLOUD', 'CUSTOMERS', 'RESOURCES', and 'ABOUT US' are on the right. The main heading is 'MongoDB Download Center'. Below this, there are three tabs: 'Cloud', 'Server', and 'Tools', with 'Server' being the active tab. The text 'Select the server you would like to run:' is followed by two server options: 'MongoDB Community Server' (labeled 'FEATURE RICH. DEVELOPER READY.') and 'MongoDB Enterprise Server' (labeled 'ADVANCED FEATURES. PERFORMANCE GRADE.'). Below these options are three dropdown menus: 'Version' (set to '4.0.5 (current release)'), 'OS' (set to 'macOS 64-bit x64'), and 'Package' (set to 'TGZ'). A green 'Download' button is positioned to the right of the 'Package' dropdown. Below the button is a text box containing the download URL: 'https://fastdl.mongodb.org/osx/mongodb-osx-ssl-x86_64-4.0.5.tgz'. To the right of the 'Download' button is a list of links: 'Release notes', 'Changelog', 'All version binaries', 'Installation instructions', 'Download source (tgz)', and 'Download source (zip)'. At the bottom, there is a paragraph explaining that MongoDB offers both an Enterprise and Community version, and that MongoDB Enterprise is available as part of the MongoDB Enterprise Advanced subscription. Below this paragraph, it says 'MongoDB Enterprise comes with:'.



dockerhub Search for great content (e.g., mysql) Explore Sign In Sign Up

Docker Desktop (Mac)

By Docker

The fastest and easiest way to get started with Docker on Mac

Edition macOS x86-64

Get Docker Desktop (Mac)

Docker Desktop (Mac) is available for free.

Requires Apple Mac OS Sierra 10.12 or above. Download Docker Toolbox for previous OS versions.

[Please Login To Download](#)

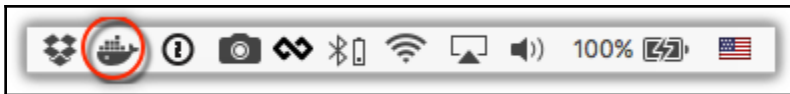
DESCRIPTION REVIEWS RESOURCES

Docker Desktop - Mac

Docker Desktop - Mac is an easy-to-install desktop app for building, debugging, and testing Dockerized apps on a Mac. Docker Desktop - Mac is a complete development environment deeply integrated with the Mac OS Hypervisor framework, networking, and filesystem. Docker Desktop - Mac is the fastest and most reliable way to run Docker on a Mac.

Features and Benefits

- Easy installation and setup of a complete Docker development environment for the Mac.
- Integrated Docker platform and tools [Docker command line](#), [Docker Compose](#), and [Docker Notary](#) command line.
- Automatic updates with channels for monthly [Edge](#) and quarterly [Stable](#) versions of Docker.



```

~ docker ps
CONTAINER ID   IMAGE          COMMAND                  CREATED        STATUS        PORTS                    NAMES
869e35cbb95e   mongo:latest  "docker-entrypoint.s..."  2 seconds ago Up 1 second   0.0.0.0:27017->27017/tcp  my-mongo

```

Studio 3T

Are you serious about MongoDB? Choose Studio 3T - our fully featured IDE for MongoDB professionals.

- Fully featured IDE with embedded shell
- Visual Query Builder
- In-Place editing
- IntelliShell with Auto-Completion
- Query MongoDB with SQL
- Export to / import from SQL DB
- Aggregation Pipeline Editor
- And so much more...

Click to go back, hold to see history

Download Studio 3T



Robo 3T

Robo 3T (formerly Robomongo) is the free lightweight GUI for MongoDB enthusiasts.

- MongoDB GUI with embedded shell

Download Robo 3T



Generate code in 5 languages with 1 click

Query: mongo shell
 Projection: JavaScript (Node.js), Java (2.x driver API), Java (3.x driver API)
 Skip: C#, Python
 Result Out: C#, Python
 Language: PHP (MongoDB PHP Library)

Need a more powerful GUI? Try Robo 3T

Do you write code in MQL (MongoDB Shell)?

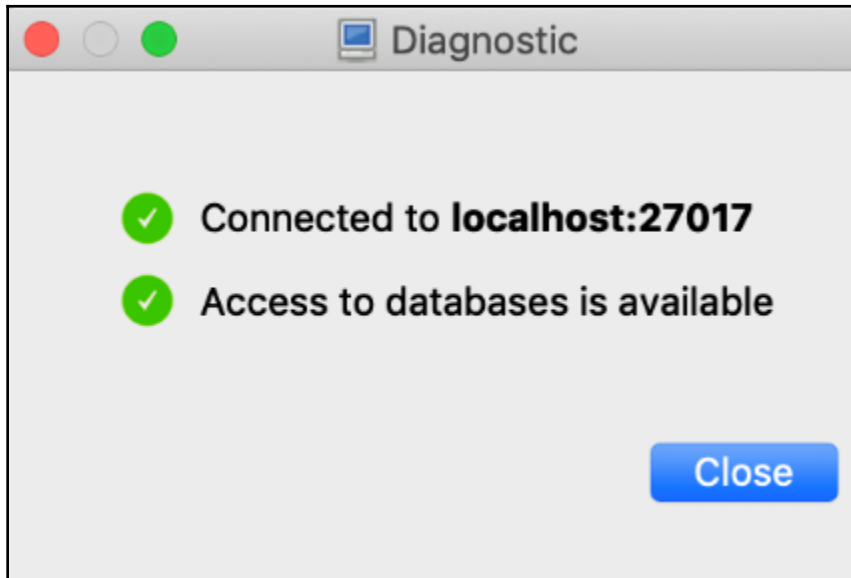
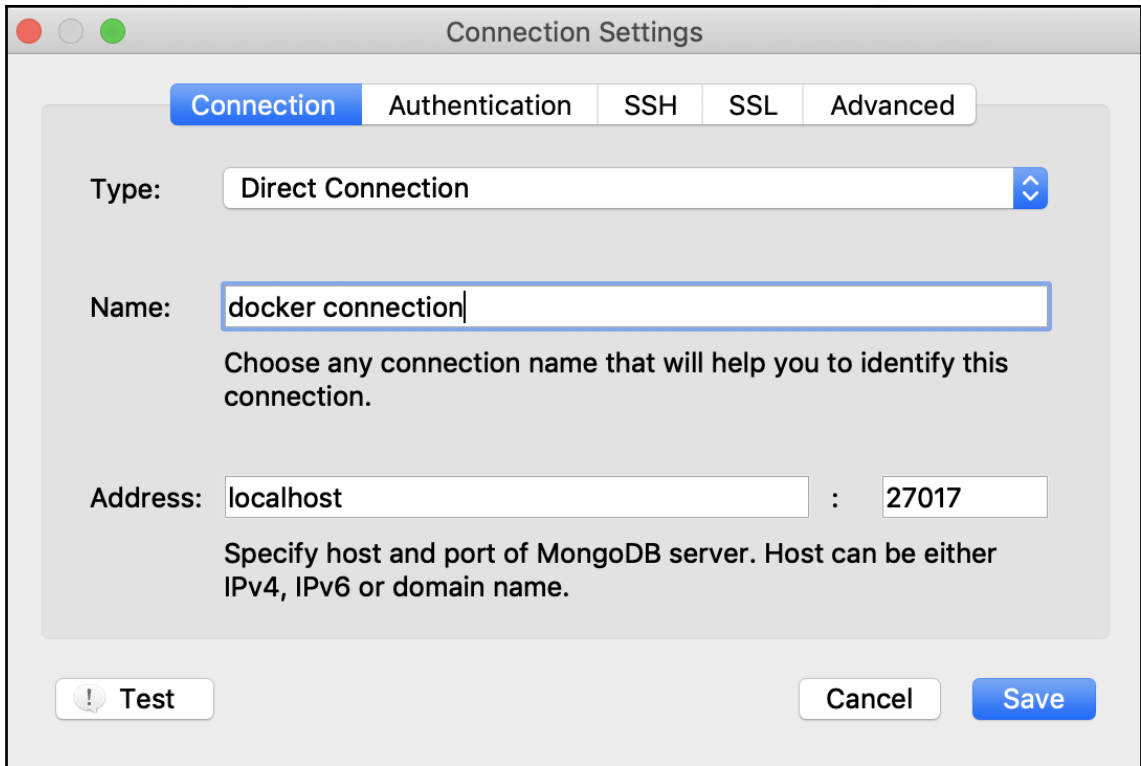
- Save time with Query Code, available in Studio 3T.
- In one click, generate Java, JavaScript (Node.js), PHP, C# and Python driver code from your MongoDB queries, for an easy copy + paste into your app.
- Translate queries in a breeze. Release the full power of MongoDB with Studio 3T.

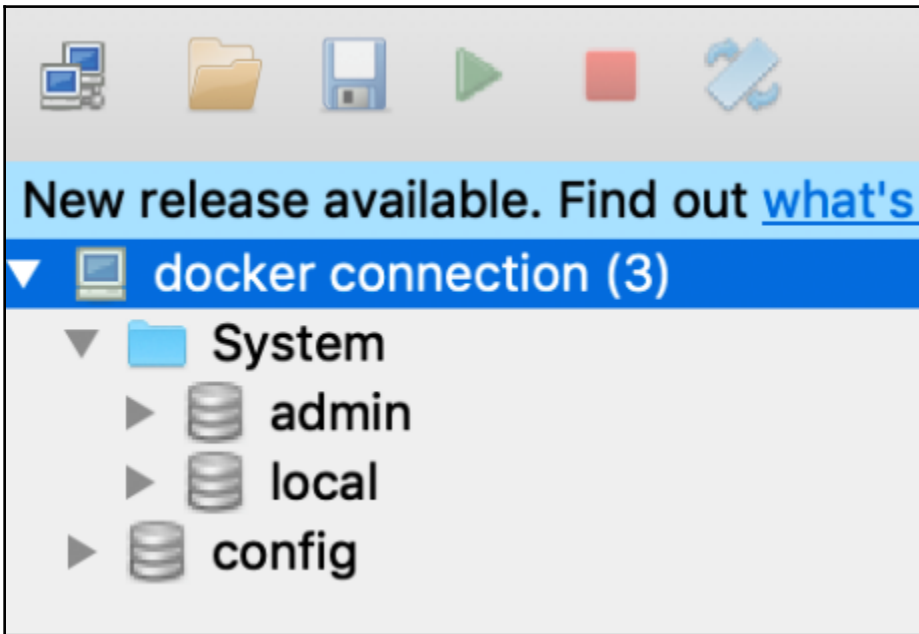
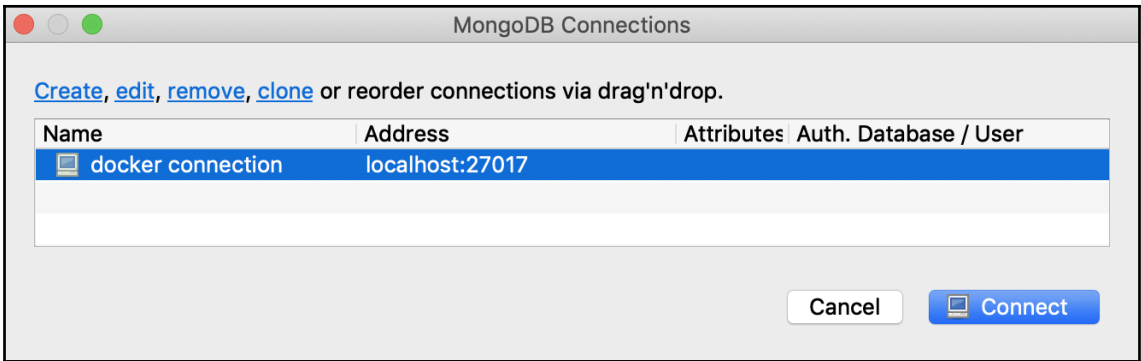
[Download Studio 3T](#)

Blog Posts

- [Robo 3T 1.2 is released](#)
Mon, 19 Feb 2018
- [Robomongo is now Robo 3T, with MongoDB 3.4 support](#)
Wed, 14 Jun 2017
- [Robomongo 1.0 — Official Release](#)
Thu, 20 Apr 2017
- [Robomongo has been acquired by 3T](#)
Tue, 14 Mar 2017
- [Changing the name of Robomongo](#)
Mon, 13 Feb 2017
- [Robomongo 1.0 RC1 brings support to Replica Set Clusters](#)
Thu, 02 Feb 2017
- [Robomongo 0.9.0 Final](#)
Thu, 06 Oct 2016
- [Robomongo RC10 brings support to SSL](#)
Fri, 19 Aug 2016
- [Robomongo RC9](#)
Wed, 01 Jun 2016
- [Robomongo RC8](#)
Thu, 14 Apr 2016

[All Blog Posts](#)





```

└─ test
  └─ routes
    TS 01_api.spec.ts U
    TS 02_user.spec.ts U
    TS 03_order.spec.ts U

```

All files - Stryker report

All files

File / Directory	Mutation score	# Killed	# Survived	# Timeout	# No coverage	# Runtime errors	# Transpile errors	Total detected	Total undetected	Total mutants
All files	100.00%	3	0	1	0	175	0	4	0	179
controllers/	100.00%	0	0	0	0	138	0	0	0	138
models/	100.00%	0	0	0	0	5	0	0	0	5
routes/	100.00%	1	0	0	0	12	0	1	0	13
schemas/	100.00%	1	0	0	0	10	0	1	0	11
app.ts	100.00%	1	0	1	0	5	0	2	0	7
utility/orderApiUtility.ts	100.00%	0	0	0	0	5	0	0	0	5

Generated with stryker-html-reporter generator. Visit the [Stryker website](#)

http://localhost:3000/users

POST http://localhost:3000/users Send Save

Params Authorization Headers (2) **Body** Pre-request Script Tests Cookies Code

none form-data x-www-form-urlencoded **raw** binary JSON (application/json) Beautify

```
1 {
2   "firstName": "biharck",
3   "lastName": "biharck",
4   "email": "my@email.com",
5   "password": "1234",
6   "phone": "5555555",
7   "username": "biharck"
8 }
```

Body Cookies Headers (7) Test Results Status: 201 Created Time: 198 ms Size: 458 B Download

Pretty Raw Preview JSON

```
1 {
2   "_id": "5c24435ea95f320e0eb5e9a6",
3   "firstName": "biharck",
4   "lastName": "biharck",
5   "email": "my@email.com",
6   "password": "1234",
7   "phone": "5555555",
8   "username": "biharck",
9   "_v": 0,
10  "_links": {
11    "self": {
12      "href": "/users/5c24435ea95f320e0eb5e9a6"
13    }
14  }
15 }
```

http://localhost:3000/users/biharck

GET http://localhost:3000/users/biharck Send Save

Params Authorization Headers (2) **Body** Pre-request Script Tests Cookies Code

none form-data x-www-form-urlencoded raw binary

This request does not have a body

Body Cookies Headers (7) Test Results Status: 200 OK Time: 26 ms Size: 453 B Download

Pretty Raw Preview JSON

```
1 {
2   "_id": "5c24435ea95f320e0eb5e9a6",
3   "firstName": "biharck",
4   "lastName": "biharck",
5   "email": "my@email.com",
6   "password": "1234",
7   "phone": "5555555",
8   "username": "biharck",
9   "_v": 0,
10  "_links": {
11    "self": {
12      "href": "/users/5c24435ea95f320e0eb5e9a6"
13    }
14  }
15 }
```

http://localhost:3000/store/orders/

POST http://localhost:3000/store/orders/ Send Save

Params Authorization Headers (3) **Body** Pre-request Script Tests Cookies Code

none form-data x-www-form-urlencoded **raw** binary JSON (application/json) Beautify

```
1 {
2   "userId": "5c24435ea95f320e0eb5e9a6",
3   "quantity": 5,
4   "shipDate": "2018-12-05T01:52:19.458Z"
5 }
```

Body Cookies Headers (7) Test Results Status: 201 Created Time: 33 ms Size: 479 B Download

Pretty Raw Preview JSON ↕

```
1 {
2   "_id": "5c24438fa95f320e0eb5e9a7",
3   "userId": "5c24435ea95f320e0eb5e9a6",
4   "quantity": 5,
5   "shipDate": "2018-12-05T01:52:19.458Z",
6   "_v": 0,
7   "_links": {
8     "self": {
9       "href": "/store/orders/5c24438fa95f320e0eb5e9a7"
10    },
11    "user": {
12      "href": "/users/5c24435ea95f320e0eb5e9a6"
13    }
14  }
15 }
```

http://localhost:3000/store/inventory

GET http://localhost:3000/store/inventory Send Save

Params Authorization Headers (1) Body Pre-request Script Tests Cookies Code

KEY	VALUE	DESCRIPTION
Key	Value	Description

Body Cookies Headers (7) Test Results Status: 200 OK Time: 9 ms Size: 679 B Download

Pretty Raw Preview JSON

```
1 {
2   "5c24435ea95f320e0eb5e9a6": [
3     {
4       "_id": "5c24438fa95f320e0eb5e9a7",
5       "userId": "5c24435ea95f320e0eb5e9a6",
6       "quantity": 5,
7       "shipDate": "2018-12-05T01:52:19.458Z",
8       "__v": 0
9     }
10  ],
11  "5c2443a6a95f320e0eb5e9a8": [
12    {
13      "_id": "5c2443ada95f320e0eb5e9a9",
14      "userId": "5c2443a6a95f320e0eb5e9a8",
15      "quantity": 15,
16      "shipDate": "2018-12-05T01:52:19.458Z",
17      "__v": 0
18    },
19    {
20      "_id": "5c2443b1a95f320e0eb5e9aa",
21      "userId": "5c2443a6a95f320e0eb5e9a8",
22      "quantity": 20,
23      "shipDate": "2018-12-05T01:52:19.458Z",
24      "__v": 0
25    }
26  ]
27 }
```


Robo 3T - 1.1

docker connection (4)

System

config

order-api

Collections (2)

orders

users

Functions

Users

Welcome db.getCollection('users').find()

docker connection localhost:27017 order-api

db.getCollection('users').find({})

users 0.003 sec.

Key	Value	Type
(1) ObjectId("5c2443243746580de5d777b0")	{ 9 fields }	Object
_id	ObjectId("5c2443243746580de5d777b0")	ObjectId
username	OrderUser	String
firstName	Order	String
lastName	User	String
email	order@myemail.com	String
password	password	String
phone	5555555	String
userStatus	1	Int32
_v	0	Int32
(2) ObjectId("5c24435ea95f320e0eb5e9a6")	{ 8 fields }	Object
_id	ObjectId("5c24435ea95f320e0eb5e9a6")	ObjectId
firstName	biharck	String
lastName	biharck	String
email	my@email.com	String
password	1234	String
phone	5555555	String
username	biharck	String
_v	0	Int32
(3) ObjectId("5c2443a6a95f320e0eb5e9a8")	{ 8 fields }	Object
_id	ObjectId("5c2443a6a95f320e0eb5e9a8")	ObjectId
firstName	john	String
lastName	doe	String
email	my@email.com	String
password	1234	String
phone	5555555	String
username	john	String
_v	0	Int32

Robo 3T - 1.1

docker connection (4)

System

config

order-api

Collections (2)

orders

users

Functions

Users

Welcome db.getCollection('users').find() db.getCollection('orders').find()

docker connection localhost:27017 order-api

db.getCollection('orders').find({})

orders 0.002 sec.

Key	Value	Type
(1) ObjectId("5c24438fa95f320e0eb5e9a7")	{ 5 fields }	Object
_id	ObjectId("5c24438fa95f320e0eb5e9a7")	ObjectId
userid	ObjectId("5c24435ea95f320e0eb5e9a6")	ObjectId
quantity	5	Int32
shipDate	2018-12-05 01:52:19.458Z	Date
_v	0	Int32
(2) ObjectId("5c2443ada95f320e0eb5e9a9")	{ 5 fields }	Object
_id	ObjectId("5c2443ada95f320e0eb5e9a9")	ObjectId
userid	ObjectId("5c2443a6a95f320e0eb5e9a8")	ObjectId
quantity	15	Int32
shipDate	2018-12-05 01:52:19.458Z	Date
_v	0	Int32
(3) ObjectId("5c2443b1a95f320e0eb5e9aa")	{ 5 fields }	Object
_id	ObjectId("5c2443b1a95f320e0eb5e9aa")	ObjectId
userid	ObjectId("5c2443a6a95f320e0eb5e9a8")	ObjectId
quantity	20	Int32
shipDate	2018-12-05 01:52:19.458Z	Date
_v	0	Int32

Chapter 9: Securing Your API

https://localhost:3000/api

GET https://localhost:3000/api Send Save

Params Authorization Headers (2) Body ● Pre-request Script Tests Cookies Code

KEY	VALUE	DESCRIPTION	...	Bulk Edit
Key	Value	Description		

Body Cookies Headers (7) Test Results Status: 200 OK Time: 10 ms Size: 247 B Download

Pretty Raw Preview JSON ▼

```
1 {
2   "title": "Order API"
3 }
```

http://localhost:3000/api

GET http://localhost:3000/api Send Save

Params Authorization Headers (2) Body ● Pre-request Script Tests Cookies Code

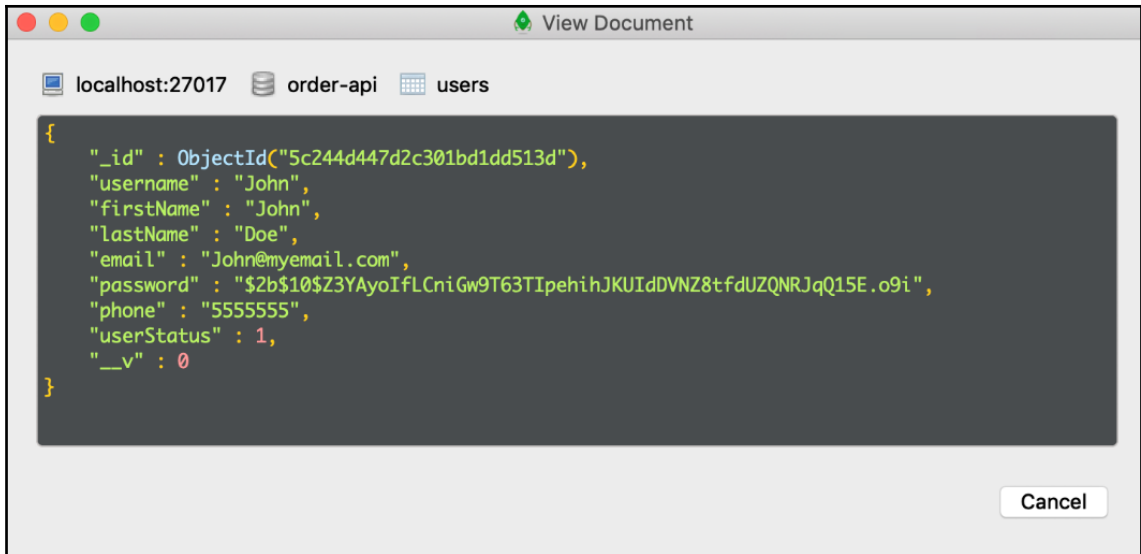
KEY	VALUE	DESCRIPTION	...	Bulk Edit
Key	Value	Description		

Could not get any response

There was an error connecting to <http://localhost:3000/api>.

Why this might have happened:

- **The server couldn't send a response:** Ensure that the backend is working properly
- **Self-signed SSL certificates are being blocked:** Fix this by turning off 'SSL certificate verification' in *Settings > General*
- **Proxy configured incorrectly** Ensure that proxy is configured correctly in *Settings > Proxy*
- **Request timeout:** Change request timeout in *Settings > General*



https://localhost:3000/users

POST https://localhost:3000/users Send Save

Params Authorization Headers (2) **Body** Pre-request Script Tests Cookies Code

none form-data x-www-form-urlencoded **raw** binary JSON (application/json) Beautify

```
1 {
2   "firstName": "john",
3   "lastName": "doe",
4   "email": "my@email.com",
5   "password": "1234",
6   "phone": "5555555",
7   "username": "john"
8 }
```

Body Cookies Headers (6) Test Results Status: 500 Internal Server Error Time: 341 ms Size: 710 B Download

Pretty Raw Preview JSON

```
1 {
2   "errors": {
3     "email": {
4       "message": "Error, expected `email` to be unique. Value: `my@email.com`",
5       "name": "ValidatorError",
6       "properties": {
7         "message": "Error, expected `email` to be unique. Value: `my@email.com`",
8         "type": "unique",
9         "path": "email",
10        "value": "my@email.com"
11      },
12      "kind": "unique",
13      "path": "email",
14      "value": "my@email.com"
15    }
16  },
17  "_message": "User validation failed",
18  "message": "User validation failed: email: Error, expected `email` to be unique. Value: `my@email.com`",
19  "name": "ValidationError"
20 }
```


GET http: POST http: DEL http: GET http: GET http: GET http: GET http: POST http: GET http: GET http: + ... No Environment

https://localhost:3000/users

POST https://localhost:3000/users Send Save

Params Authorization Headers (2) Body Pre-request Script Tests Cookies Code

KEY	VALUE
<input checked="" type="checkbox"/> Content-Type	application/json
<input checked="" type="checkbox"/> Authorization	Bearer eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJ1c2VyYy1pZjI1Ij01Y2NjNjM4MzRmMmQzZTlmY...
Key	Value

Body Cookies Headers (7) Test Results Status: 201 Created Time: 153 ms Size: 505 B Download

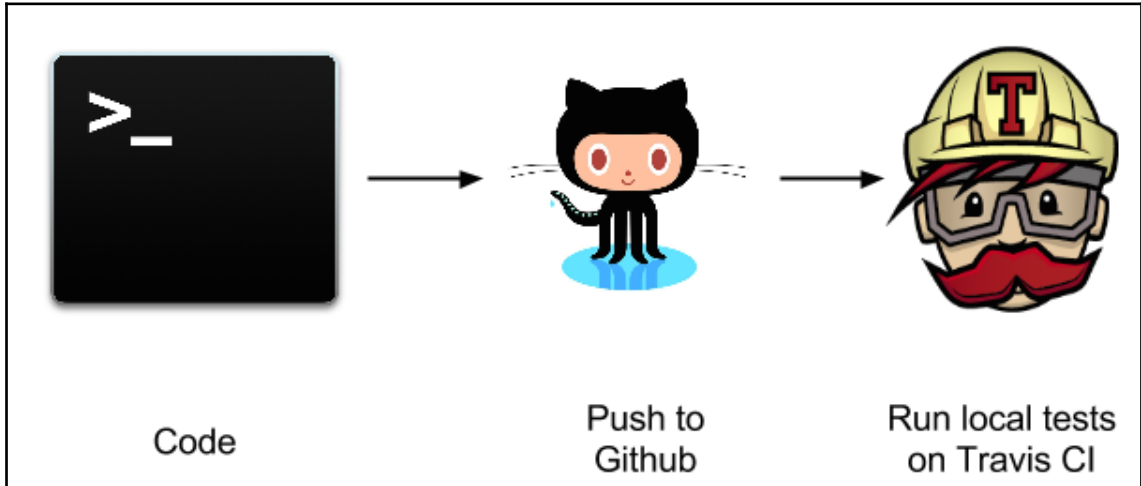
Pretty Raw Preview JSON

```
1 {
2   "_id": "5c2460d062fdf92fb7cf2119",
3   "firstName": "john",
4   "lastName": "doe",
5   "email": "my@email.com",
6   "password": "$2b$10$.9WF07p5ulEyioRzdveiueMxPjPtgr5qYNqNfURt8s7YXDE1Gv0z2",
7   "phone": "5555555",
8   "username": "john",
9   "_v": 0,
10  "_links": {
11    "self": {
12      "href": "/users/5c2460d062fdf92fb7cf2119"
13    }
14  }
15 }
```

Chapter 10: Error Handling and Logging

```
agggregated.log x
1 [2018-12-27T16:40:23.527Z] [info] => [GET] [/users] NO_USER
2 [2018-12-27T16:40:23.532Z] [info] => [GET] [/users/{username}] user with username NO_USER not found
3 [2018-12-27T16:40:23.577Z] [info] => [POST] [/users] { _id: null,
4   username: 'John',
5   firstName: 'John',
6   lastName: 'Doe',
7   email: 'John@email.com',
8   password: 'password',
9   phone: '5555555',
10  userStatus: 1 }
11 [2018-12-27T16:40:23.670Z] [info] => [GET] [/users] John
12 [2018-12-27T16:40:23.678Z] [info] => [PATCH] [/users] John
13 [2018-12-27T16:40:23.699Z] [info] => [GET] [/users] John_Updated
14 [2018-12-27T16:40:23.704Z] [info] => [PATCH] [/users] Mary
15 [2018-12-27T16:40:23.709Z] [info] => [PATCH] [/users/{username}] user with username Mary not found
16 [2018-12-27T16:40:23.711Z] [warn] => [DELETE] [/users] John_Updated
17 [2018-12-27T16:40:23.724Z] [warn] => [DELETE] [/users] Mary
18 [2018-12-27T16:40:23.727Z] [info] => [DELETE] [/users/{username}] user with username Mary not found
19 [2018-12-27T16:40:23.857Z] [info] => [GET] [/store/orders/] 000
20 [2018-12-27T16:40:23.857Z] [info] => [GET] [/store/orders/{orderId}] Order 000 not found.
21 [2018-12-27T16:40:23.907Z] [error] => Order 000 not found.
22 [2018-12-27T16:40:23.911Z] [info] => [POST] [/users] { _id: 5c250077106f667d473a96e6,
23   username: 'OrderUser',
24   firstName: 'Order',
25   lastName: 'User',
26   email: 'order@myemail.com',
27   password: 'password',
28   phone: '5555555',
29   userStatus: 1 }
30 [2018-12-27T16:40:24.010Z] [info] => [POST] [/store/orders/] 5c250077106f667d473a96e6
31 [2018-12-27T16:40:24.016Z] [info] => [POST] [/store/orders/] { _id: 5c250078106f667d473a96e7,
32   userId: 5c250077106f667d473a96e6,
33   quantity: 1,
34   shipDate: 2018-12-27T16:40:22.933Z,
35   status: 'PLACED',
36   complete: false }
37 [2018-12-27T16:40:24.060Z] [info] => [GET] [/store/orders/] 5c250078106f667d473a96e7
38 [2018-12-27T16:40:24.077Z] [info] => [GET] [/store/orders/]
39 [2018-12-27T16:40:24.090Z] [info] => [GET] [/store/orders/]
```

Chapter 11: Creating a CI/CD Pipeline for Your API



Create a new repository

A repository contains all the files for your project, including the revision history.

Owner

 biharck ▾

Repository name

order-api ✓

Great repository names are short and memorable. Need inspiration? How about **miniature-disco**.

Description (optional)

 **Public**

Anyone can see this repository. You choose who can commit.

 **Private**

You choose who can see and commit to this repository.

Initialize this repository with a README

This will let you immediately clone the repository to your computer. Skip this step if you're importing an existing repository.

Add .gitignore: **None** ▾

Add a license: **None** ▾



Create repository

© 2018 GitHub, Inc.

[Terms](#)

[Privacy](#)

[Security](#)

[Status](#)

[Help](#)



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[API](#)

[Training](#)

[Blog](#)

[About](#)

biharck / order-api

Watch 0 Star 0 Fork 0

Code Issues 0 Pull requests 0 Projects 0 Wiki Insights Settings

No description, website, or topics provided. [Edit](#)

Manage topics

1 commit 1 branch 0 releases 1 contributor

Branch: master New pull request Create new file Upload files Find file Clone or download

biharck adding order api files to the github Latest commit 0c7042b 6 minutes ago

src	adding order api files to the github	6 minutes ago
test	adding order api files to the github	6 minutes ago
.gitignore	adding order api files to the github	6 minutes ago
.prettierrc	adding order api files to the github	6 minutes ago
README.md	adding order api files to the github	6 minutes ago
package.json	adding order api files to the github	6 minutes ago
stryker.conf.js	adding order api files to the github	6 minutes ago
tsconfig.json	adding order api files to the github	6 minutes ago
tslint.json	adding order api files to the github	6 minutes ago

README.md

order-api



Test and Deploy with Confidence

Easily sync your GitHub projects with Travis CI and you'll be testing your code in minutes!




The screenshot shows the Travis CI web interface. At the top, there's a navigation bar with 'Travis CI', 'About Us', 'Blog', 'Status', and 'Help'. A 'Sign in with GitHub' button is on the right. The main heading reads 'Test and Deploy with Confidence' with a sub-headline 'Easily sync your GitHub projects with Travis CI and you'll be testing your code in minutes!'. A green 'Sign Up' button is centered below the text.

The interface is shown within a browser window titled 'Travis CI - Test and Deploy with Confidence'. The user 'Sam Iamm' is logged in. The main content area displays the repository 'green-eggs / ham' with a 'build passing' status. The current build is for the 'master' branch, showing a commit 'abc123' by 'Sven Fuchs'. The build log includes the message 'adding in Oh the places you'll go!' and 'You'll be on your way up! You'll be seeing great sights!'. The build duration is 53 seconds and it passed 209 tests. On the left, a 'My Repositories' sidebar lists other repositories like 'one-fish/two-fish', 'hop-on/pop', and 'horton-hears/awho' with their respective build counts and completion times. At the bottom, there are buttons for 'Remove log' and 'Raw log'.

Travis CI  [Dashboard](#) [Changelog](#) [Documentation](#) [Help](#) 


MY ACCOUNT

 **Biharck Araujo**

[Sync account](#)

ORGANIZATIONS
You are not currently a member of any organization.


MISSING AN ORGANIZATION?
[Review and add your authorized organizations.](#)


 **Biharck Araujo**
@biharck



[Repositories](#) [Settings](#)


We're only showing your public repositories. You can find your private projects on travis-ci.com.


Legacy Services Integration



 order-api


 **order-api** [Settings](#)


 **biharck / order-api**  build unknown


[Current](#) [Branches](#) [Build History](#) [Pull Requests](#) > [Build #1](#) [More options](#) 

∞ **master** adding travis file  #1 booting X Cancel build

 Commit f4e4e76 [↗](#)  Running for -

 Branch master [↗](#)

 Biharck Araujo

 </> Node.js: 10

[Job log](#) [View config](#)

Hang tight, the log cannot be shown until the job has started.

Travis CI [Dashboard](#) [Changelog](#) [Documentation](#) [Help](#)

Search all repositories

biharck / order-api build unknown

My Repositories +

- ✓ biharck/order-api # 1
- 🕒 Duration: 1 min 20 sec
- 📅 Finished: less than a minute ago

Current Branches Build History Pull Requests More options

✓ master adding travis file #1 passed Restart build

🔗 Commit f4e4e76

🔗 Branch master

👤 Biharck Araujo

📄 Node.js: 10

📄 Job log View config

```
1 Worker information
2 Build system information
3
4 $ sudo service docker start
5
6 $ git clone --depth=50 --branch=master https://github.com/biharck/order-api.git biharck/order-api
7 Cloning into 'biharck/order-api'...
8 remote: Enumerating objects: 42, done.
9 remote: Counting objects: 100% (42/42), done.
10 remote: Compressing objects: 100% (36/36), done.
11 remote: Total 42 (delta 5), reused 42 (delta 5), pack-reused 0
12 Unpacking objects: 100% (42/42), done.
13 $ cd biharck/order-api
14 $ git checkout -qf f4e4e76a87ee5c76417aaac84618a45aa878f9e
```

```

549     ✓ should respond with HTTP 404 status because there is no order
550 [2018-12-27T19:52:37.794Z] [info] => [POST] [/users] { _id: 5c252d85bb50be11ffb1ccb2,
551   username: 'OrderUser',
552   firstName: 'Order',
553   lastName: 'User',
554   email: 'order@myemail.com',
555   password: 'password',
556   phone: '5555555',
557   userStatus: 1 }
558     ✓ should create a new user for Order tests and retrieve it back (83ms)
559 [2018-12-27T19:52:37.877Z] [info] => [POST] [/store/orders/] 5c252d85bb50be11ffb1ccb2
560 [2018-12-27T19:52:37.880Z] [info] => [POST] [/store/orders/] { _id: 5c252d85bb50be11ffb1ccb3,
561   userId: 5c252d85bb50be11ffb1ccb2,
562   quantity: 1,
563   shipDate: 2018-12-27T19:52:37.150Z,
564   status: 'PLACED',
565   complete: false }
566     ✓ should create a new order and retrieve it back
567 [2018-12-27T19:52:37.897Z] [info] => [GET] [/store/orders/] 5c252d85bb50be11ffb1ccb3
568     ✓ should return the order created on the step before
569 [2018-12-27T19:52:37.902Z] [info] => [GET] [/store/orders/]
570     ✓ should return all orders so far
571 [2018-12-27T19:52:37.907Z] [info] => [GET] [/store/orders/]
572     ✓ should not return orders because offset is higher than the size of the orders array
573 [2018-12-27T19:52:37.910Z] [info] => [GET] [/store/inventory/] PLACED
574     ✓ should return the inventory for all users
575 [2018-12-27T19:52:37.915Z] [warn] => [DELETE] [/store/orders/] 5c252d85bb50be11ffb1ccb3
576     ✓ should remove an existing order
577 [2018-12-27T19:52:37.919Z] [warn] => [DELETE] [/store/orders/] 5c252d85bb50be11ffb1ccb3
578 [2018-12-27T19:52:37.920Z] [warn] => [DELETE] [/store/orders/:{orderId}] Order id 5c252d85bb50be11ffb1ccb3 not found
579     ✓ should return 404 when it is trying to remove an order because the order does not exist
580
581
582     21 passing (762ms)
583
584     The command "npm run test" exited with 0.
585
586
587
588     Done. Your build exited with 0.

```

Top ^

The screenshot shows the Google APIs & Services Dashboard. The main heading is "No APIs or services are enabled". Below this, there is a section for "Popular APIs and services" with a "VIEW ALL (218)" link. Five API cards are displayed:

- Google Drive API**: The Google Drive API allows clients to access resources from Google Drive.
- Gmail API**: Flexible, RESTful access to the user's inbox.
- Maps SDK for Android**: Maps for your native Android app.
- Cloud Translation API**: Integrates text translation into your website or application.
- Geocoding API**: Convert between addresses and geographic coordinates.

Google Cloud Platform order-api 🔍

Home DASHBOARD ACTIVITY CUSTOMIZE

Pins appear here 🔍 ✕

- Marketplace
- Billing
- RPI APIs & Services >
- Support >
- IAM & admin >
- Getting started
- Security >

COMPUTE

- App Engine >
- Compute Engine >
- Kubernetes Engine >
- Cloud Functions

STORAGE

- Bigtable
- Datastore >

Project info

Project name
order-api

Project ID
order-api-226821

Project number
677671784598

→ Go to project settings

RPI APIs

Requests (requests/sec)

→ Go to APIs overview

Google Cloud Platform status

All services normal

→ Go to Cloud status dashboard

Billing

Estimated charges BRL R\$0.00

For the billing period Dec 1 – 27, 2018

→ View detailed charges

Error Reporting

No sign of any errors. Have you set up Error Reporting?

→ Learn how to set up Error Reporting

News

- Every GCP blog post from 2018
6 days ago
- Cloud Functions pro tips: Retries and idempotency in action
6 days ago
- Using data and ML to better track wildfire and assess its threat levels
6 days ago

Resources

This project has no resources

Trace

No trace data from the past 7 days

→ Get started with Stackdriver Trace

Getting Started

- RPI Explore and enable APIs
- Deploy a prebuilt solution
- Add dynamic logging to a running application

Google Cloud Why Google Solutions Products Pricing Getting started 🔍 Docs Support Console 👤

Developer Tools Contact sales

CLOUD SDK

Command-line interface for Google Cloud Platform products and services

INSTALL FOR MACOS VIEW DOCUMENTATION

Essential Tools for Cloud Platform

The Cloud SDK is a set of tools for Cloud Platform. It contains gcloud, gsutil, and bq, which you can use to access Google Compute Engine, Google Cloud Storage, Google BigQuery, and other products and services from the command-line. You can run these tools interactively or in your automated scripts.

Manage Virtual Machine Instances

gcloud makes it easy to manage your fleet of virtual machines on Compute Engine - everything from creating, starting and managing VM instances to rolling your own VM images. You can also use gcloud to make SSH connections to your instances.

mLab is now part of MongoDB, Inc. [Learn about our plans for migrating mLab databases to MongoDB Atlas](#) →



[PLANS & PRICING](#) [DOCUMENTATION](#)

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Database-as-a-Service for MongoDB

Now part of the MongoDB family, powering over 1 million deployments worldwide.

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MongoDB Deployments

[Create from backup](#)

[+ Create new](#)

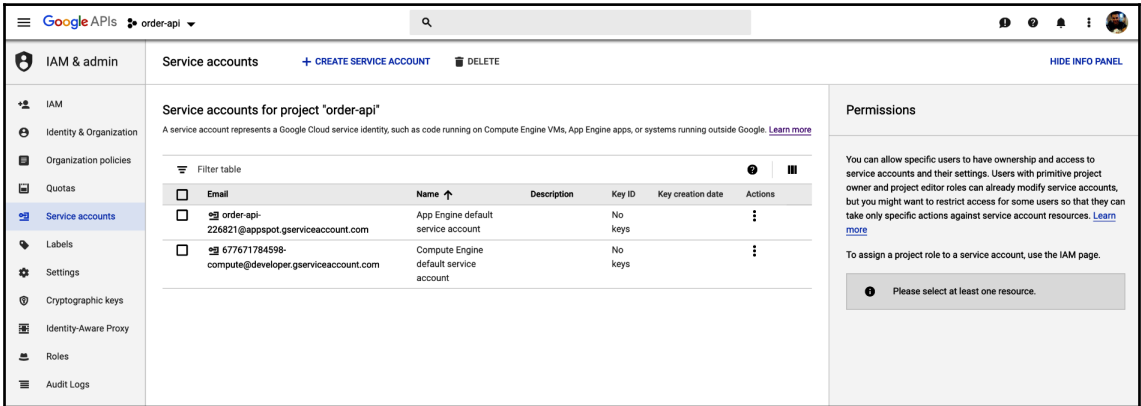
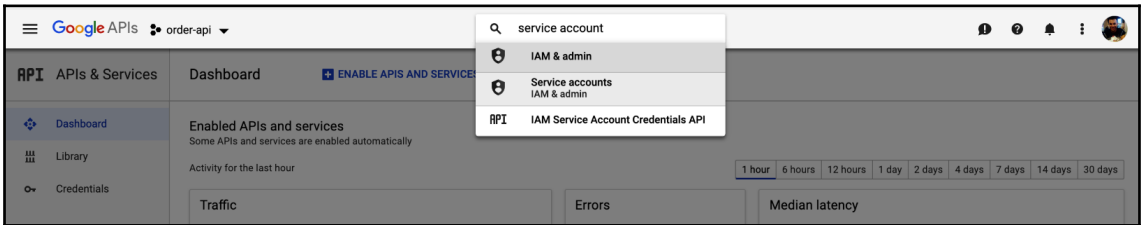
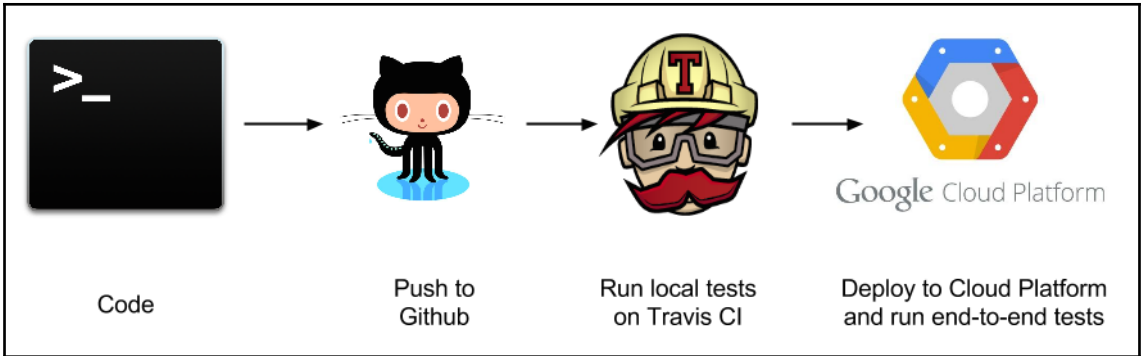
Development and Utility Single-node deployments intended for environments that do not require high availability.

>	DEPLOYMENT	TYPE	RAM	SIZE ⌵	SIZE ON DISK ⌵
>	✓ ds019482/order-api	Sandbox	shared	17.36 KB	16.00 MB

Environments

[+ Create new](#)

None exist at this time. Click "Create new" to create an [mLab Environment](#) (VPC).



Create service account

1 Service account details — 2 Grant this service account access to project (optional) — 3 Grant users access to this service account (optional)

Service account details

Service account name

Display name for this service account

Service account ID

Service account description

Describe what this service account will do

Create service account

✓ Service account details — 2 Grant this service account access to project (optional) — 3 Grant users access to this service account (optional)

Service account permissions (optional)

Grant this service account access to order-api so that it has permission to complete specific actions on the resources in your project. [Learn more](#)

Select a role

Project	Browser
Android Management	Editor
App Engine	Owner
AutoML	Viewer
BigQuery	
Billing	
Binary Authorization	
Cloud Asset	

Editor
Edit access to all resources.

Google APIs order-api

IAM & admin

IAM

Identity & Organization

Organization policies

Quotas

Service accounts

Labels

Settings

Cryptographic keys

Identity-Aware Proxy

Roles

Audit Logs

Create service account

Service account details — Grant this service account access to project (optional) —

3 Grant users access to this service account (optional)

Grant users access to this service account (optional)

Grant access to users or groups that need to perform actions as this service account. [Learn more](#)

Service account users role ⓘ
Grant users the permissions to deploy jobs and VMs with this service account

Service account admins role ⓘ
Grant users the permission to administer this service account

Create key (optional)

Download a file that contains the private key. Store the file securely because this key can't be recovered if lost. However, if you are unsure why you need a key, skip this step for now.

Download a file that contains the private key. Store the file securely because this key can't be recovered if lost. However, if you are unsure why you need a key, skip this step for now.

Key type

JSON
Recommended

P12
For backward compatibility with code using the P12 format

Google APIs order-api

API Library

App Engine Admin API

Google

Provisions and manages developers' App Engine applications.

[ENABLE](#) [TRY THIS API](#)

Type
[APIs & services](#)

Last updated
10/22/18, 6:05 PM

Category
[Compute](#)
[Google Cloud APIs](#)

Service name
appengine.googleapis.com

Overview
Provisions and manages developers' App Engine applications.

About Google
Google's mission is to organize the world's information and make it universally accessible and useful. Through products and platforms like Search, Maps, Gmail, Android, Google Play, Chrome and YouTube, Google plays a meaningful role in the daily lives of billions of people.

Tutorials and documentation
[Learn more](#)

Terms of service
By using this product you agree to the terms and conditions of the following license(s): [Google Cloud Platform](#)

Google Cloud Platform order-api

Storage

Create a bucket

Name ⓘ
Must be unique across Cloud Storage. If you're [serving website content](#), enter the website domain as the name.

envvars_order-api-226821

Default storage class
Objects added to this bucket are assigned the selected storage class by default. An object's storage class and bucket location affect its geo-redundancy, availability, and costs. You can set storage classes for individual objects in [gsutil](#). [Learn more](#)

ⓘ Nearline and Coldline data in multi-regional locations is now stored geo-redundantly. New locations nam4 and eur4 (available in beta) enable co-location of compute and storage for high performance with geo-redundancy. [Learn more](#) Dismiss

Multi-Regional
 Regional
 Nearline
 Coldline

Location
United States

[Compare storage classes](#)

Storage cost	Retrieval cost	Class A operations ⓘ	Class B operations ⓘ
\$0.026 per GB-month	Free	\$0.005 per 1,000 ops	\$0.0004 per 1,000 ops

⌵ [Show advanced settings](#)

Create Cancel

Google Cloud Platform order-api

Storage

Bucket details

envvars_order-api-226821

[Objects](#) [Overview](#) [Permissions](#) [Bucket Lock](#)

Upload files Upload folder Create folder Manage holds Delete

Filter by prefix...

Buckets / envvars_order-api-226821

<input type="checkbox"/>	Name	Size	Type	Storage class	Last modified	Public access ⓘ	Encryption ⓘ	Retention expiration date ⓘ	Holdings ⓘ
<input type="checkbox"/>	.env.prod	127 B	application/octet-stream	Multi-Regional	12/29/18, 12:49:49 AM UTC-2	Not public	Google-managed key	-	None

```

579 [2018-12-29T02:09:26.769Z] [info] => [GET] [/store/orders/]
580   ✓ should not return orders because offset is higher than the size of the orders array
581 [2018-12-29T02:09:26.775Z] [info] => [GET] [/store/inventory/] PLACED
582   ✓ should return the inventory for all users
583 [2018-12-29T02:09:26.781Z] [warn] => [DELETE] [/store/orders/] 5c26d7566d7216129d22bb3e
584   ✓ should remove an existing order
585 [2018-12-29T02:09:26.787Z] [warn] => [DELETE] [/store/orders/] 5c26d7566d7216129d22bb3e
586 [2018-12-29T02:09:26.789Z] [warn] => [DELETE] [/store/orders/{orderId}] Order id 5c26d7566d7216129d22bb3e not found
587   ✓ should return 404 when it is trying to remove an order because the order does not exist
588
589
590 21 passing (685ms)
591
592 The command "npm run test" exited with 0.
593
594
595 $ rvm $(travis_internal_ruby) --fuzzy do ruby -S gem install dpl
596
597 ▶ 602 Installing deploy dependencies
598 ▶ 687 Preparing deploy
599 ▶ 690 Deploying application
600
601 ▶ 1728 Done. Your build exited with 0.

```

https://order-api-226821.appspot.com/users/login?username=John&password=password

GET https://order-api-226821.appspot.com/users/login?username=John&password=password Send Save

Params **Authorization** Headers Body Pre-request Script Tests Cookies Code

KEY	VALUE	DESCRIPTION
<input checked="" type="checkbox"/> username	John	
<input checked="" type="checkbox"/> password	password	
Key	Value	Description

Body Cookies Headers (9) Test Results Status: 200 OK Time: 836 ms Size: 528 B Download

Pretty Raw Preview JSON 🔍

```

1 {
2   "token": "eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJ1c2Vybm9udGUiOiJpYjI9pZC16IjVjMjU3OTYxODE3YjYyMTg0NGMyNW1iMiIsImVtYWlsIjoiaW5pYXVlX2VtYXVlLnNvb3JlLjpwYXQ0jE1NDYwNTAwNjN9.Olb5f5w5Ma1huKH8mgibGxGAJZM1nSGE2TzebJUZZvI"
3 }

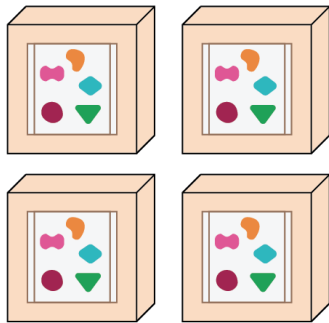
```

Chapter 12: Developing RESTful APIs with Microservices

A monolithic application puts all its functionality into a single process...



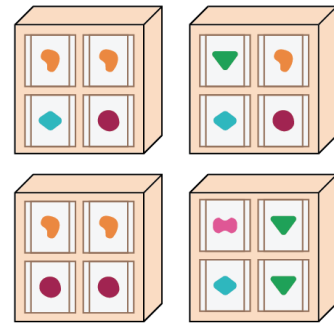
... and scales by replicating the monolith on multiple servers

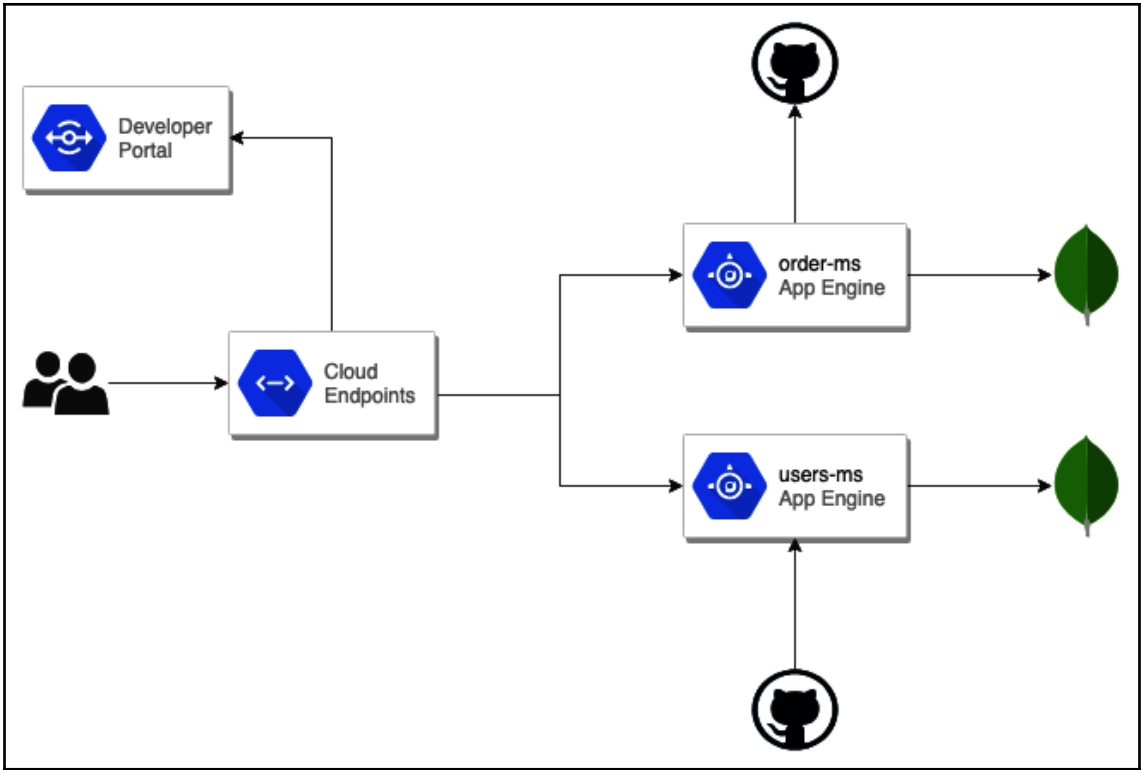


A microservices architecture puts each element of functionality into a separate service...










... and scales by distributing these services across servers, replicating as needed.












[Home](#)

Order Confirmation

PLAN TYPE	Sandbox	
CLOUD PROVIDER	Google Cloud Platform	
REGION	Iowa (us-central1)	
PLAN LINE & SIZE	Sandbox	FREE 
	 STORAGE 0.5 GB	
MONGODB VERSION	3.6.9 (MMAPv1)	
DATABASE NAME	order-ms	
Total Price		FREE

[Home](#)

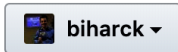
Order Confirmation

PLAN TYPE	Sandbox	
CLOUD PROVIDER	Google Cloud Platform	
REGION	Iowa (us-central1)	
PLAN LINE & SIZE	Sandbox	FREE 
	 STORAGE 0.5 GB	
MONGODB VERSION	3.6.9 (MMAPv1)	
DATABASE NAME	user-ms	
Total Price		FREE


Create a new repository

A repository contains all the files for your project, including the revision history.

Owner



Repository name

/ user-ms 

Great repository names are short and memorable. Need inspiration? How about **turbo-bassoon**.

Description (optional)

 **Public**

Anyone can see this repository. You choose who can commit.

 **Private**

You choose who can see and commit to this repository.

Initialize this repository with a README

This will let you immediately clone the repository to your computer. Skip this step if you're importing an existing repository.

Add .gitignore: None ▾

Add a license: None ▾




Create repository

Create a new repository

A repository contains all the files for your project, including the revision history.


Owner


Repository name

 biharck ▾ / order-ms ✓

Great repository names are short and memorable. Need inspiration? How about **reimagined-happiness**.

Description (optional)

 **Public**
Anyone can see this repository. You choose who can commit.

 **Private**
You choose who can see and commit to this repository.

Initialize this repository with a README
This will let you immediately clone the repository to your computer. Skip this step if you're importing an existing repository.

Add .gitignore: **None** ▾

Add a license: **None** ▾



Create repository

Google Cloud Platform

Manage resources [+ CREATE PROJECT](#) [CREATE FOLDER](#) [MOVE](#) [DELETE](#) [HIDE INFO PANEL](#)


Filter by name, ID, project number, or label Columns ▾

<input type="checkbox"/> Project name	Project ID	
<input type="checkbox"/> order-ms	order-ms-227100	⋮
<input type="checkbox"/> user-ms	user-ms-227100	⋮

[Resources pending deletion](#)

Select a resource

[PERMISSIONS](#) [LABELS](#)

 Please select at least one resource.

Order Microservice 1.0.0

[Base URL: order-ms-227100.appspot.com]

Order Microservice

Schemes

HTTPS

Authorize



api



GET

/api



store



GET

/store/inventory Returns user inventories from the store



POST

/store/orders Place an order for a user



GET

/store/orders/{orderId} Find purchase order by ID



DELETE

/store/orders/{orderId} Deletes the order with the specified ID.



Models



Order >



User Microservice ^{1.0.0}

[Base URL: user-ms-227100.appspot.com]

User Microservice

Schemes

HTTPS

Authorize



api



GET

/api



store



POST

/users Create a user



GET

/users/{username} Find user by username



PATCH

/users/{username} Update the user with the specified username.



DELETE

/users/{username} Deletes the user with the specified username.



Models



User >



ORDER-MS	
src	
controllers	
TS api.ts	U
TS order.ts	U
models	
routes	
TS api.ts	U
TS order.ts	U
schemas	
TS order.ts	U
utility	
TS app.ts	U
TS server.ts	U
test	
routes	
TS api.spec.ts	U
TS order.spec.ts	U
mocha.opts	U
.dockerignore	U
.env.dev	U
.env.prod	
.env.test	U
.gitignore	U
.prettierrc	U
.travis.yml	U
app.yaml	U
Dockerfile	U
gce.json	
gce.json.enc	U
openapi-appengine.yaml	U
package-lock.json	
package.json	U
README.md	U
stryker.conf.js	U
tsconfig.json	U
tslint.json	U

Google Cloud Platform | order-ms

IAM & admin | Service accounts

+ CREATE SERVICE ACCOUNT | DELETE

Service accounts for project 'order-ms'

A service account represents a Google Cloud service identity, such as code running on Compute Engine VMs, App Engine apps, or systems running outside Google. [Learn more](#)

Filter table	Email	Name	Description	Key ID	Key created	Actions
<input type="checkbox"/>	travis@order-ms-227100.iam.gserviceaccount.com	travis		Sace7a37d3c4c8fc2e449c8cb221d7d525c04a03	Dec 29	

Permissions

You can allow specific users to have ownership and access to service accounts and their settings. Users with primitive project owner and project editor roles can already modify service accounts, but you might want to restrict access for some users so that they can take only specific actions against service account resources. [Learn more](#)

To assign a project role to a service account, use the IAM page.

Please select at least one resource.

Google Cloud Platform | order-ms

Storage | Create a bucket

Name [?]

Must be unique across Cloud Storage. If you're serving website content, enter the website domain as the name.

order-ms-227100

Default storage class

Objects added to this bucket are assigned the selected storage class by default. An object's storage class and bucket location affect its geo-redundancy, availability, and costs. You can set storage classes for individual objects in gsutil. [Learn more](#)

! Nearline and Coldline data in multi-regional locations is now stored geo-redundantly. New locations nam4 and eur4 (available in beta) enable co-location of compute and storage for high performance with geo-redundancy. [Learn more](#) Dismiss

Multi-Regional
 Regional
 Nearline
 Coldline

Location

United States

Google Cloud Platform | order-ms

Storage | Bucket details

EDIT BUCKET | REFRESH BUCKET

order-ms-227100

Objects Overview Permissions Bucket Lock

Upload files | Upload folder | Create folder | Manage holds | Delete

Filter by prefix...

Buckets / order-ms-227100

Name	Size	Type	Storage class	Last modified	Public access	Encryption	Retention expiration date	Holds
<input type="checkbox"/> .env.prod	117 B	application/octet-stream	Multi-Regional	12/29/18, 11:49:04 PM UTC-2	Not public	Google-managed key	-	None

All files - Stryker report



All files

File / Directory	Mutation score		# Killed	# Survived	# Timeout	# No coverage	# Runtime errors	# Transpile errors	Total detected	Total undetected	Total mutants
All files	<div style="width: 100%;"><div style="width: 100%;"></div></div> 100.00 %	100.00	3	0	3	0	144	0	6	0	150
controllers/	<div style="width: 100%;"><div style="width: 100%;"></div></div> 100.00 %	100.00	1	0	1	0	65	0	2	0	67
models/	<div style="width: 100%;"><div style="width: 100%;"></div></div> 100.00 %	100.00	0	0	0	0	5	0	0	0	5
routes/	<div style="width: 100%;"><div style="width: 100%;"></div></div> 100.00 %	100.00	0	0	0	0	8	0	0	0	8
utility/	<div style="width: 100%;"><div style="width: 100%;"></div></div> 100.00 %	100.00	0	0	0	0	29	0	0	0	29
app.ts	<div style="width: 100%;"><div style="width: 100%;"></div></div> 100.00 %	100.00	1	0	2	0	28	0	3	0	31
schemas/order.ts	<div style="width: 100%;"><div style="width: 100%;"></div></div> 100.00 %	100.00	1	0	0	0	6	0	1	0	7
server.ts	<div style="width: 100%;"><div style="width: 100%;"></div></div> 100.00 %	100.00	0	0	0	0	3	0	0	0	3

Generated with stryker-html-reporter generator. Visit the [Stryker website](#)

Travis CI



Dashboard Changelog Documentation Help



MY ACCOUNT



Biharck Araujo

Sync account



Biharck Araujo

@biharck

Repositories Settings

ORGANIZATIONS

You are not currently a member of any organization.

MISSING AN ORGANIZATION?

Review and add your authorized organizations.

We're only showing your public repositories. You can find your private projects on [travis-ci.com](#).

Legacy Services Integration

user-ms



Settings

order-ms



Settings

Google Cloud Platform order-api

Cloud Endpoints

Google

Develop, deploy and manage APIs on any Google Cloud backend

[GO TO CLOUD ENDPOINTS](#) [TAKE QUICKSTART](#)

Runs on
Google Cloud Servers

Type
[Google Cloud Platform](#)

Category
[Developer tools](#)

Overview

Develop, deploy, protect and monitor your APIs with Google Cloud Endpoints. Using an Open API Specification or one of our API frameworks, Cloud Endpoints gives you the tools you need for every phase of API development and provides insight with Stackdriver Monitoring, Trace, and Logging.

Use your favorite API framework and language, or choose our open source Cloud Endpoints Frameworks in Java or Python. Simply upload an Open API specification and deploy our containerized proxy. An NGINX-based proxy and distributed architecture give unparalleled performance and scalability. Extensible Server Proxy delivers security and insight in less than 1ms per call. Deploy your API automatically with Google App Engine and Google Container Engine, or add our proxy container to your Kubernetes deployment.

Pricing
[Cloud Endpoints Pricing](#)

Google Cloud Platform order-ms

Endpoints Developer Portal

Endpoints Developer Portal

Automatic documentation for Endpoints APIs
Endpoints generates a Developer Portal for your APIs, giving your customers access to useful, never-outdated API documentation.

To get started, click "Create portal" to generate a portal for the APIs in this project (this will take 5 to 10 minutes). [Learn more](#)

Your portal will be created with the domain name `endpointsportal.order-ms-227100.cloud.goog`, and its SSL/TLS certificate will be listed in the publicly-searchable Certificate Transparency log. [Learn more](#)

[Create portal](#)

Google Cloud Platform order-ms

Endpoints Developer Portal [DELETE PORTAL](#)

Services

Developer Portal


Endpoints generates a Developer Portal for your APIs, giving your customers access to useful, never-outdated API documentation. [Learn more](#)

Portal URL
Access your Developer Portal through the URL shown below. Endpoints also allows you to add a custom domain if you own one.

Type	URL
Default	https://endpointsportal.order-ms-227100.cloud.google

[Add a custom domain](#)

Developer Portal



Developer Portal


Welcome to our API Developer Portal home page. Browse our APIs or click on an API to view its reference documentation. Each API reference page contains descriptions for its endpoints and resources as well as an interactive UI where you can try out our API from your browser

Order Microservice
order-ms-227100.appspot.com


Order Microservice
⚙️

Order Microservice documentation


Order Microservice



API REFERENCE
Explore the API surface via its resources, or use the left-side navigation to browse the API by path.



GETTING STARTED
Follow these quick instructions to get set up for calling this API.



GET A KEY
Enable this API in the Google APIs Console, then get an API key to start making API calls.

Order Microservice
⚙️

Introduction

GUIDES

Getting Started

API REFERENCE

/api **GET**

› /store/...

inventory **GET**

orders **POST**

› orders/...

{orderId} **GET**

{orderId} **DELETE**

RESOURCES

› Overview

GET /store/orders/{orderId}

HTTP request

```
https://order-ms-227100.appspot.com/store/orders/{orderId}
```

Path Parameters

orderId (required)	integer
	Numeric ID of the order to get.

Response Types

201: successful operation

Body
application/json

object ^

complete	boolean
id	integer (int64)
quantity	integer (int32)
shipDate	string (date-time)
status	string
	Order Status

The following values are allowed:
placed, approved, delivered

userId	integer (int64)
--------	-----------------

"Try this API" is disabled on this method.

Don't worry—only portal admins can see this.

"Try this API" is disabled for users on this page for the following reasons:

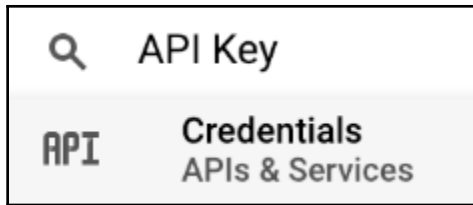
key: API key was not set

Click [here](#) to configure auth for this API.

API key

You have invalid or missing required parameter values above.

EXECUTE



Credentials

[Credentials](#)
[OAuth consent screen](#)
[Domain verification](#)

[Create credentials](#)
[Delete](#)

API key
Identifies your project using a simple API key to check quota and access the authentication documentation .

OAuth client ID
Requests user consent so your app can access the user's data

Service account key
Enables server-to-server, app-level authentication using robot accounts

Help me choose
Asks a few questions to help you decide which type of credential to use

Creation date	Service account
Dec 29, 2018	travis

https://order-ms-227100.appspot.com/api?key=AlzaSyBwt9Ar11-ZFmZtI6jcvI6qlbuhMonNVXg

GET https://order-ms-227100.appspot.com/api?key=AlzaSyBwt9Ar11-ZFmZtI6jcvI6qlbuhMonNVXg [Send](#) [Save](#)

Params Authorization Headers Body Pre-request Script Tests [Cookies](#) [Code](#)

KEY	VALUE	DESCRIPTION
<input checked="" type="checkbox"/> key	AlzaSyBwt9Ar11-ZFmZtI6jcvI6qlbuhMonNVXg	
Key	Value	Description

Body [Cookies](#) [Headers \(10\)](#) [Test Results](#) Status: 200 OK Time: 729 ms Size: 355 B [Download](#)

Pretty Raw Preview JSON [i](#)

```

1 {
2   "title": "Order microservice"
3 }

```

Google APIs order-ms

API Library

App Engine Admin API

Google

Provisions and manages developers' App Engine applications.

[ENABLE](#) [TRY THIS API](#)

Type
APIs & services

Last updated
10/22/18, 6:05 PM

Category
Compute
Google Cloud APIs

Service name
appengine.googleapis.com

Overview
Provisions and manages developers' App Engine applications.

About Google
Google's mission is to organize the world's information and make it universally accessible and useful. Through products and platforms like Search, Maps, Gmail, Android, Google Play, Chrome and YouTube, Google plays a meaningful role in the daily lives of billions of people.

Tutorials and documentation
[Learn more](#)

Terms of service
By using this product you agree to the terms and conditions of the following license(s): [Google Cloud Platform](#)

biharck / order-ms build error

Current Branches Build History Pull Requests More options

✓ **master** order.ms source **-o- #1 passed** [Restart build](#)

Commit f8e5953
Compare f8e59530208e
Branch master

Biharck Araujo

Node.js: 10

Job log View config

Remove log Raw log

```

1 Worker information
6 Build system information
413

```

routes - Stryker report



All files / routes

File / Directory	Mutation score	# Killed	# Survived	# Timeout	# No coverage	# Runtime errors	# Transpile errors	Total detected	Total undetected	Total mutants
routes	<div style="width: 100%;"><div style="width: 100%;"></div></div> 100.00%	0	0	0	7	0	0	0	0	7
api.ts	<div style="width: 100%;"><div style="width: 100%;"></div></div> 100.00%	0	0	0	2	0	0	0	0	2
user.ts	<div style="width: 100%;"><div style="width: 100%;"></div></div> 100.00%	0	0	0	5	0	0	0	0	5

Generated with stryker-html-reporter generator. Visit the [Stryker website](#)



Developer Portal



Developer Portal

Welcome to our API Developer Portal home page. Browse our APIs or click on an API to view its reference documentation. Each API reference page contains descriptions for its endpoints and resources as well as an interactive UI where you can try out our API from your browser

User Microservice

user-ms-227100.appspot.com

User Microservice

Introduction

GUIDES

Getting Started

API REFERENCE

/api GET

/users POST

▼ /users/...

{username} GET

{username} PATCH

{username} DELETE

RESOURCES

► Overview

POST /users

HTTP request

```
https://user-ms-227100.appspot.com/users
```

Request Body (required)

User information

application/json

object ^

_id	integer (int64)
email	string
firstName	string
lastName	string
password	string
phone	string
userStatus	integer (int32) User Status
username	string

Response Types

201: successful operation

Body
application/json

"Try this API" is disabled on this method.

Don't worry—only portal admins can see this.

"Try this API" is disabled for users on this page for the following reasons:

key: API key was not set

[Click here to configure auth for this API.](#)

}

Press ctrl+space or click one of the hint bubbles for suggestions.


Authentication

API key

EXECUTE

✓ **master** first push with user-ms

→ #1 passed

 Restart build

↻ Commit 891e238 [↗](#)


🕒 Ran for 11 min 12 sec

🔗 Compare 891e2382979c [↗](#)

📅 less than a minute ago



🔗 Branch master [↗](#)


 Biharck Araujo

 Node.js: 10

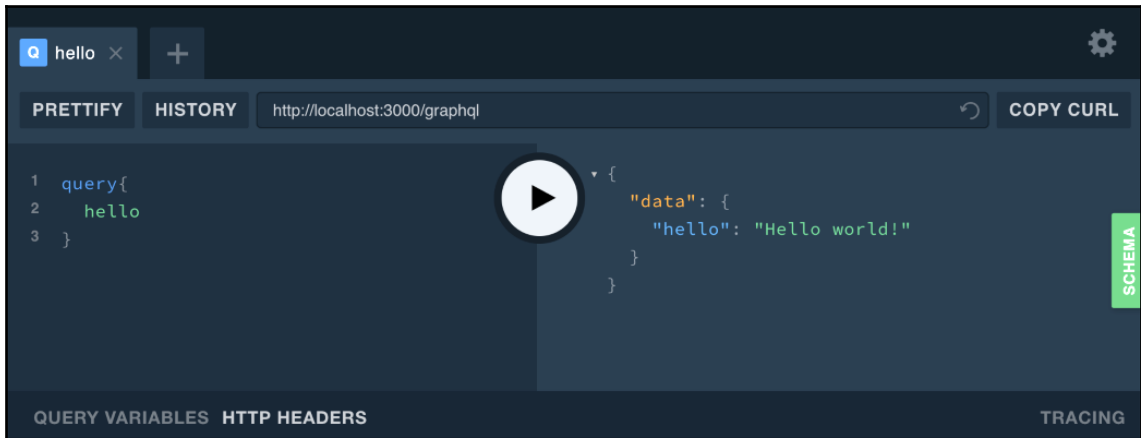
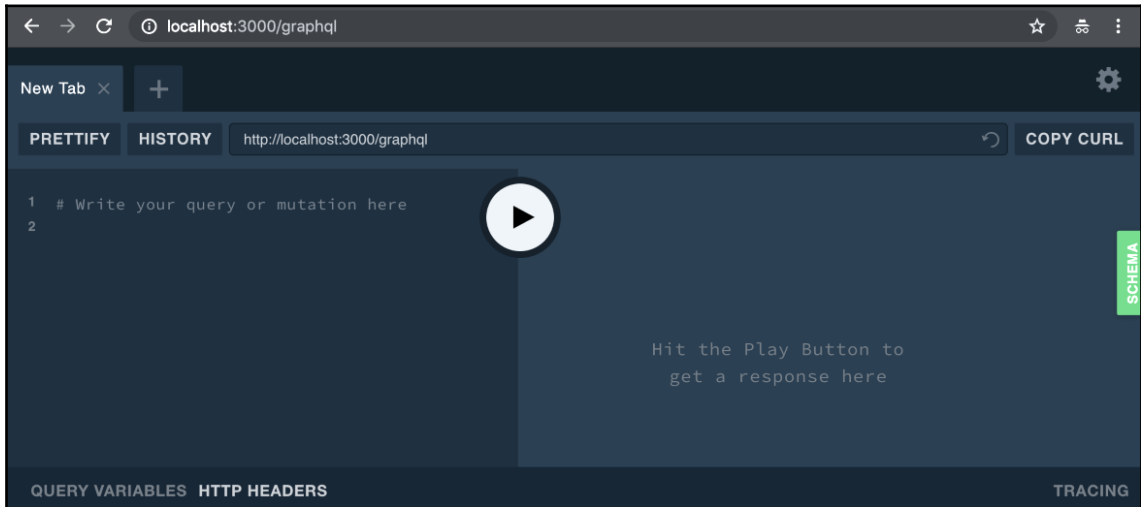
[Job log](#)

[View config](#)

 Remove log  Raw log

```
▶ 1 Worker information worker_info   
▶ 6 Build system information system_info  
413  
▶ 414 $ sudo service docker start services 8.02s  
418  
▶ 419 $ git clone --depth=50 --branch=master https://github.com/biharck/user-ms.git biharck/user-ms git_checkout 8.51s  
423  
424  
425 Setting environment variables from repository settings  
426 $ export encrypted_97423555e074_key=[secure]  
427 $ export encrypted_97423555e074_iv=[secure]  
428  
▶ 429 $ nvm install 10 nvm_install 2.99s
```

Chapter 13: Flexible APIs with GraphQL



The screenshot shows a GraphQL IDE interface. At the top, there is a tab labeled "allOrders" with a close button and a plus sign. Below the tab, there are buttons for "PRETTIFY", "HISTORY", and "COPY CURL". The URL bar shows "http://localhost:3000/graphql". A play button is visible in the center of the editor.

```
1 {
2   allOrders{
3     userId,
4     quantity
5   }
6 }
```

```
{
  "data": {
    "allOrders": [
      {
        "userId": "1",
        "quantity": 2
      },
      {
        "userId": "2",
        "quantity": 1
      },
      {
        "userId": "3",
        "quantity": 1
      },
      {
        "userId": "1",
        "quantity": 10
      }
    ]
  }
}
```

At the bottom, there are tabs for "QUERY VARIABLES", "HTTP HEADERS", and "TRACING". A vertical "SCHEMA" button is on the right side.

```
listByOrderId x + [Settings]
PRETTIFY HISTORY http://localhost:3000/graphql [Refresh] COPY CURL

1 {
2   listByOrderId(id:2){
3     userId,
4     quantity
5   }
6 }

{
  "data": {
    "listByOrderId": {
      "userId": 2,
      "quantity": 1
    }
  }
}
```

SCHEMA

QUERY VARIABLES HTTP HEADERS TRACING

```
allOrders x + [Settings]
PRETTIFY HISTORY http://localhost:3000/graphql [Refresh] COPY CURL

1 {
2   allOrders{
3     userId,
4     quantity,
5     complete
6   }
7 }

{
  "data": {
    "allOrders": [
      {
        "userId": 20,
        "quantity": 1,
        "complete": false
      },
      {
        "userId": 20,
        "quantity": 1,
        "complete": false
      }
    ]
  }
}
```

SCHEMA

QUERY VARIABLES HTTP HEADERS TRACING

```
listByOrderId x +
PRETTIFY HISTORY http://localhost:3000/graphql COPY CURL
1 {
2   listByOrderId(id: "5c28297a48b6b6815cc5f414"){
3     userId,
4     quantity,
5     complete
6   }
7 }
{"data": {"listByOrderId": {"userId": 20, "quantity": 1, "complete": false}}}
SCHEMA
QUERY VARIABLES HTTP HEADERS TRACING
```

```
createOrder x +
PRETTIFY HISTORY http://localhost:3000/graphql COPY CURL
1 mutation{
2   createOrder(userId: 1, quantity:2, status:"PLACED",complete:false){
3     userId,
4     id
5   }
6 }
{"data": {"createOrder": {"userId": 1, "id": "5c298a4ca2d7c9e73b55d578"}}}
SCHEMA
QUERY VARIABLES HTTP HEADERS TRACING
```

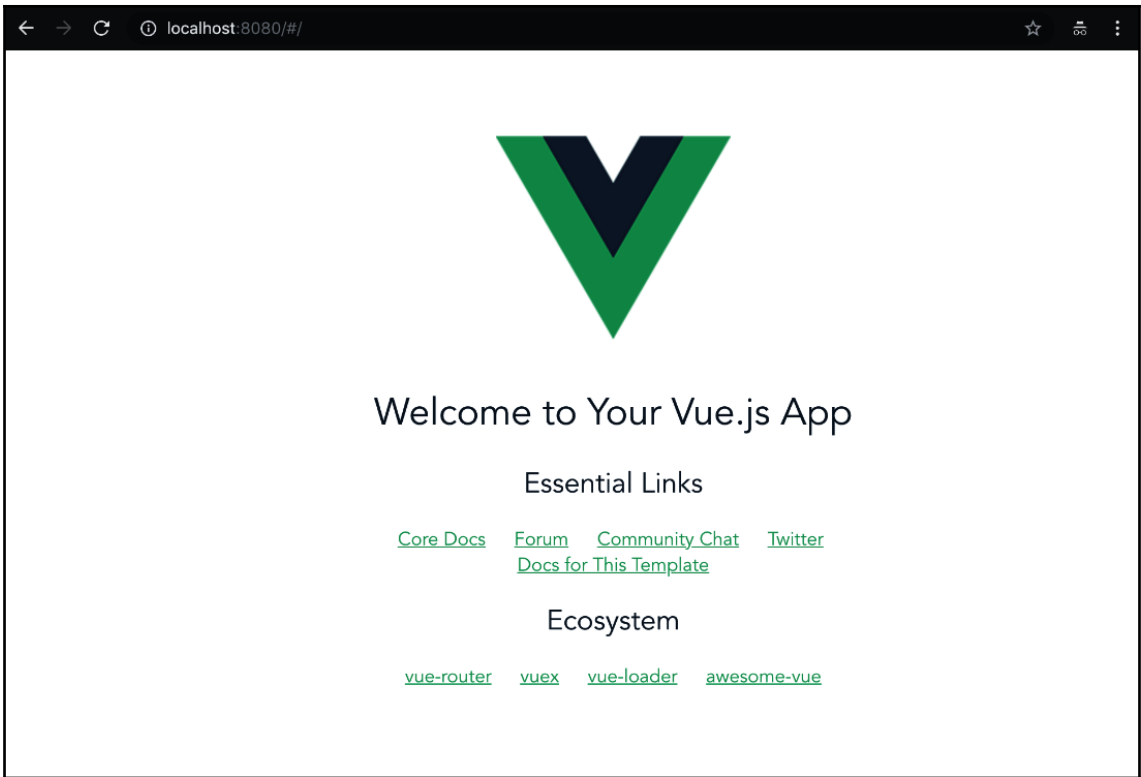
The screenshot shows the GraphQL Playground interface. The query editor on the left contains the following query:

```
1 {  
2   allOrders(  
3     id,  
4     userId,  
5     quantity  
6   )  
7 }
```

The response editor on the right shows the following JSON response:

```
{  
  "data": {  
    "allOrders": [  
      {  
        "id": "5c28297a48b6b6815cc5f414",  
        "userId": 20,  
        "quantity": 1  
      },  
      {  
        "id": "5c28297a053d93815a74ada8",  
        "userId": 20,  
        "quantity": 1  
      },  
      {  
        "id": "5c298a4ca2d7c9e73b55d578",  
        "userId": 1,  
        "quantity": 2  
      }  
    ]  
  }  
}
```

The interface includes a 'PRETTIFY' button, a 'HISTORY' tab, a URL bar with 'http://localhost:3000/graphql', a 'COPY CURL' button, and a 'SCHEMA' button on the right. At the bottom, there are tabs for 'QUERY VARIABLES', 'HTTP HEADERS', and 'TRACING'.





[Order:5c28297a48b6b6815cc5f414](#)

User: 20 Quantity:1

[Order:5c28297a053d93815a74ada8](#)

User: 20 Quantity:1

[Order:5c298a4ca2d7c9e73b55d578](#)

User: 1 Quantity:2




UserID: 20

Quantity: 1

Status: PLACED

Complete: false

localhost:8080/#/add



userId
2019


Quantity
2000

Status
PLACED

Complete
false

Add

localhost:8080/?userId=2019&quantity=2000&status=PLACED&complete=false#



[Order:5c28297a48b6b6815cc5f414](#)
User: 20 Quantity:1

[Order:5c28297a053d93815a74ada8](#)
User: 20 Quantity:1

[Order:5c298a4ca2d7c9e73b55d578](#)
User: 1 Quantity:2

[Order:5c29ab8968021300edc898cf](#)
User: 99 Quantity:2

[Order:5c29ad0468021300edc898d1](#)
User: 88 Quantity:10

[Order:5c29ad1e68021300edc898d2](#)
User: 8 Quantity:20

[Order:5c29ade768021300edc898d3](#)
User: 2019 Quantity:2000

