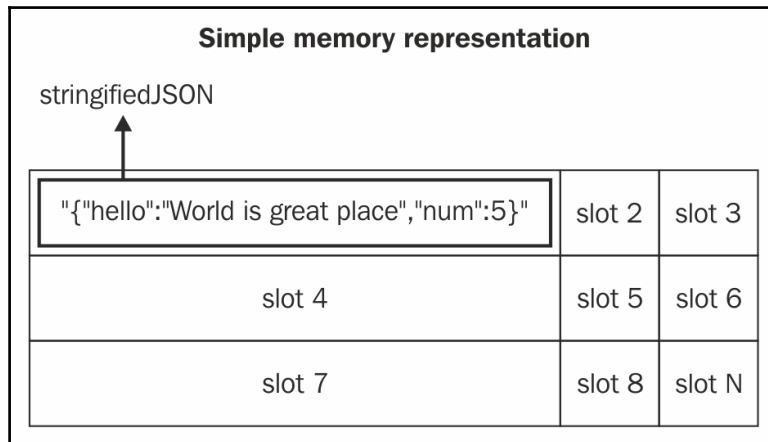
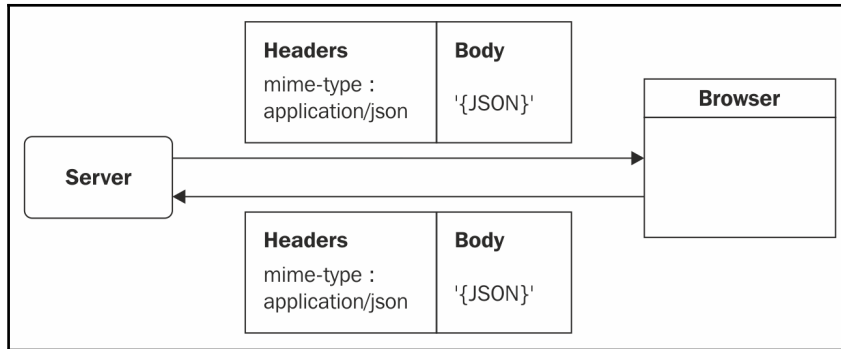
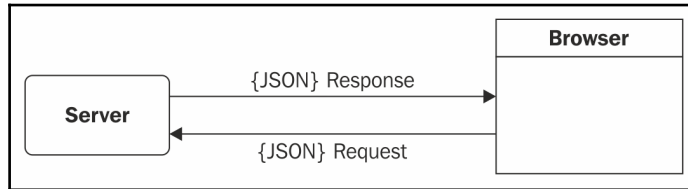
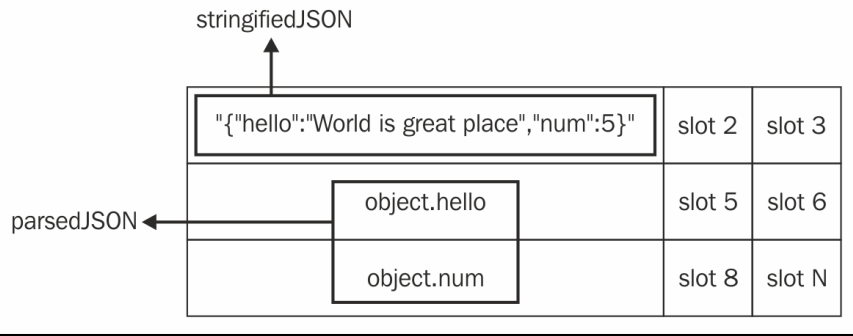


Chapter 1: Getting Started with JSON




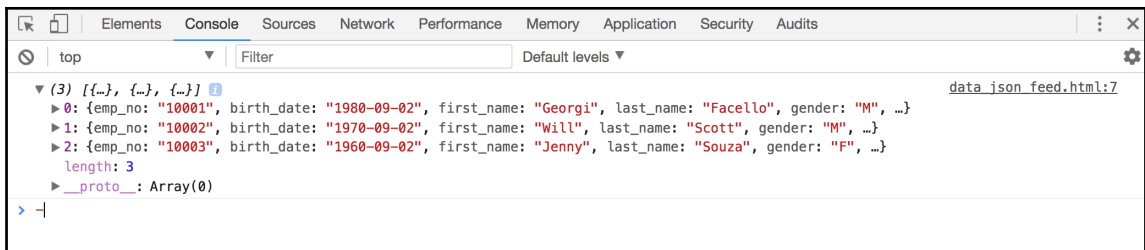
Simple memory representation



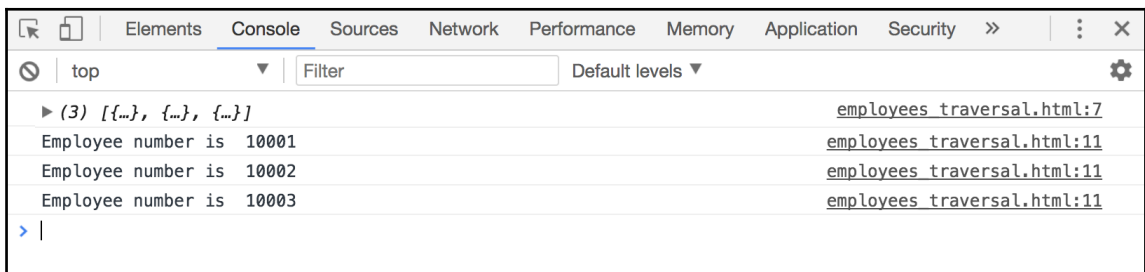
Chapter 2: The JSON Structures

FOLDERS

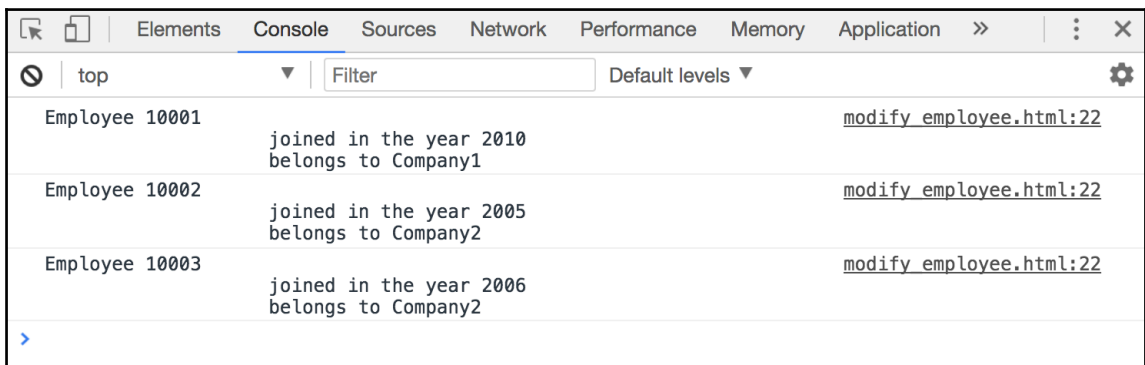
- ▼  chapter 2
 - /* example.js
 - <> external-js.html



```
top Filter Default levels data_json_feed.html:7
▼ (3) [{"-}, {"-}, {"-}]
  ▶ 0: {emp_no: "10001", birth_date: "1980-09-02", first_name: "Georgi", last_name: "Facello", gender: "M", ...}
  ▶ 1: {emp_no: "10002", birth_date: "1970-09-02", first_name: "Will", last_name: "Scott", gender: "M", ...}
  ▶ 2: {emp_no: "10003", birth_date: "1960-09-02", first_name: "Jenny", last_name: "Souza", gender: "F", ...}
    length: 3
    __proto__: Array(0)
> |
```

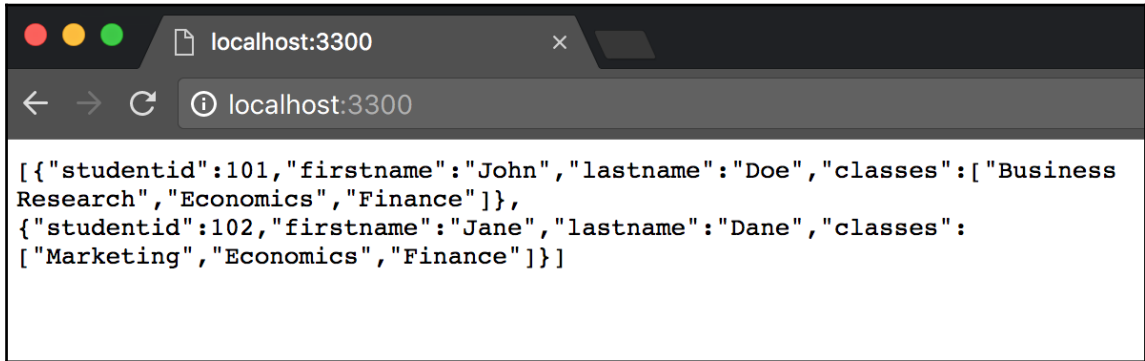


```
top Filter Default levels employees_traversal.html:7
▶ (3) [{"-}, {"-}, {"-}]
Employee number is 10001 employees_traversal.html:11
Employee number is 10002 employees_traversal.html:11
Employee number is 10003 employees_traversal.html:11
> |
```



```
top Filter Default levels modify_employee.html:22
Employee 10001      joined in the year 2010
                   belongs to Company1
Employee 10002      joined in the year 2005
                   belongs to Company2
Employee 10003      joined in the year 2006
                   belongs to Company2
>
```

Chapter 3: AJAX Requests with JSON

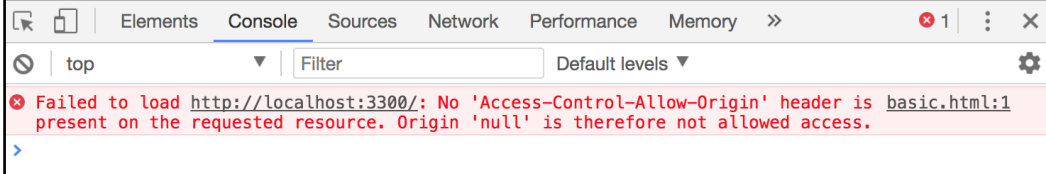


A screenshot of a web browser window with the address bar showing 'localhost:3300'. The main content area displays a JSON array of two objects, each representing a student and their classes.

```
[{"studentid":101,"firstname":"John","lastname":"Doe","classes":["Business Research","Economics","Finance"]}, {"studentid":102,"firstname":"Jane","lastname":"Dane","classes":["Marketing","Economics","Finance"]}]]
```

Include external Javascript to make an ajax call

This is a test program to make our first AJAX call using javascript



A screenshot of the browser's developer console. The 'Console' tab is active, showing a red error message. The message indicates a failure to load a resource from 'http://localhost:3300/' due to a missing 'Access-Control-Allow-Origin' header. The error text is: 'Failed to load http://localhost:3300/: No 'Access-Control-Allow-Origin' header is present on the requested resource. Origin 'null' is therefore not allowed access.'

First AJAX script

file:///Users/bruno/Documents/projects/js/book/json%20essential/codes/chapter%20...

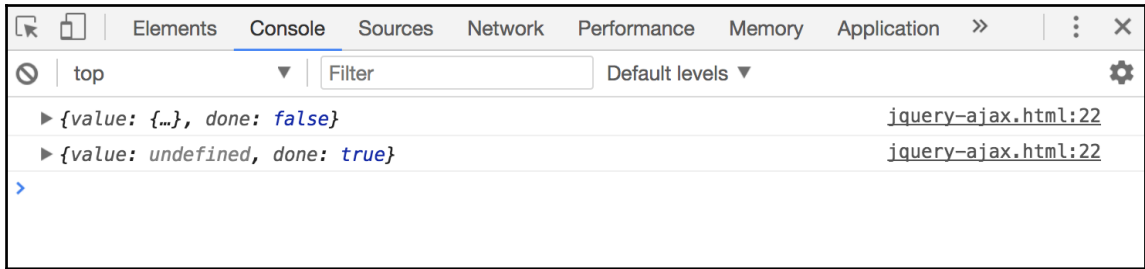
Include external Javascript to make an ajax call

This is a test program to make our first AJAX call using javascript

```
[{"studentid":101,"firstname":"John","lastname":"Doe","classes":["Business Research","Economics","Finance"]}, {"studentid":102,"firstname":"Jane","lastname":"Dane","classes":["Marketing","Economics","Finance"]}]
```

jquery-ajax.html:22

```
▼ {value: {...}, done: false} ⓘ  
  done: false  
  ▼ value:  
    ▶ abort: f (a)  
    ▶ always: f ()  
    ▶ catch: f (a)  
    ▶ done: f ()  
    ▶ fail: f ()  
    ▶ getAllResponseHeaders: f ()  
    ▶ getResponseHeader: f (a)  
    ▶ overrideMimeType: f (a)  
    ▶ pipe: f ()  
    ▶ progress: f ()  
    ▶ promise: f (a)  
      readyState: 4  
    ▶ responseJSON: (2) [{...}, {...}]  
      responseText: "[{"studentid":101,"firstname":"John","lastname":"Doe","classes":["Business Res  
    ▶ setRequestHeader: f (a,b)  
    ▶ state: f ()
```



AJAX using jquery

- Student Id is 101 and the student name is John and Doe
- Student Id is 102 and the student name is Jane and Dane

Chapter 4: Cross-Domain Asynchronous Requests

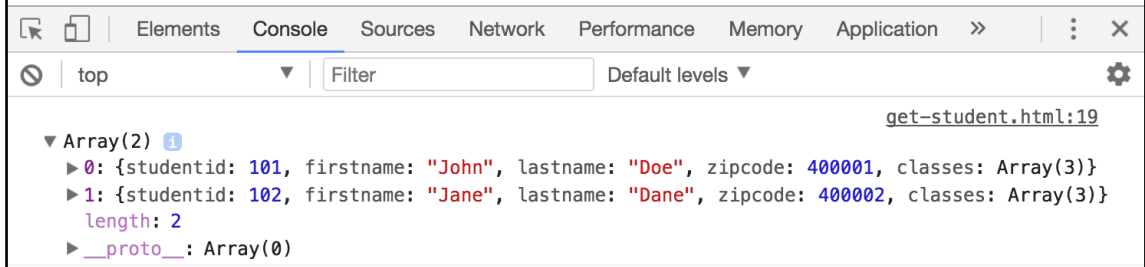


A screenshot of a web browser window. The address bar shows the URL `localhost:3300/?zipcode=400002`. The page content displays a JSON array with one object representing a student's information.

```
[{"studentid":102,"firstname":"Jane","lastname":"Dane","zipcode":400002,"classes":["Marketing","Economics","Finance"]}]]
```

Get all students

Retrieve the students information of all students



A screenshot of a web browser's developer console. The console shows a JSON array of two student objects. The console interface includes tabs for Elements, Console, Sources, Network, Performance, Memory, and Application. The console output is as follows:

```
get-student.html:19  
▼ Array(2) ⓘ  
  ▶ 0: {studentid: 101, firstname: "John", lastname: "Doe", zipcode: 400001, classes: Array(3)}  
  ▶ 1: {studentid: 102, firstname: "Jane", lastname: "Dane", zipcode: 400002, classes: Array(3)}  
    length: 2  
  ▶ __proto__: Array(0)
```

Targeted student search

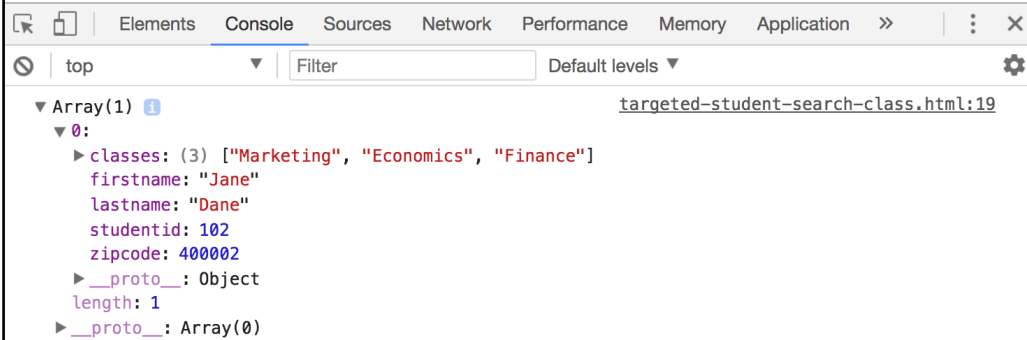
Retrieve the students information based on the zipcode



```
targeted-student-search-zip.html:19
▼ Array(1) ⓘ
  ► 0: {studentid: 101, firstname: "John", lastname: "Doe", zipcode: 400001, classes: Array(3)}
    length: 1
  ► __proto__: Array(0)
```


Targeted student search

Retrieve the students information based on classes they are enrolled in.

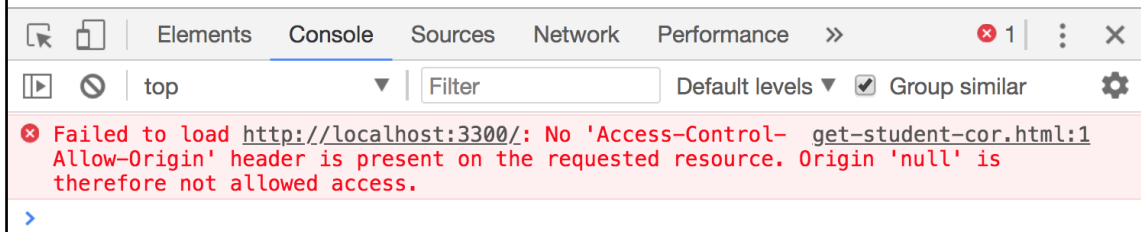


The screenshot shows a web browser's developer console with the following content:

```
▼ Array(1) [i] targeted-student-search-class.html:19
  ▼ 0:
    ▶ classes: (3) ["Marketing", "Economics", "Finance"]
    ▶ firstname: "Jane"
    ▶ lastname: "Dane"
    ▶ studentid: 102
    ▶ zipcode: 400002
    ▶ __proto__: Object
    length: 1
    ▶ __proto__: Array(0)
```

Asynchronous call for student api

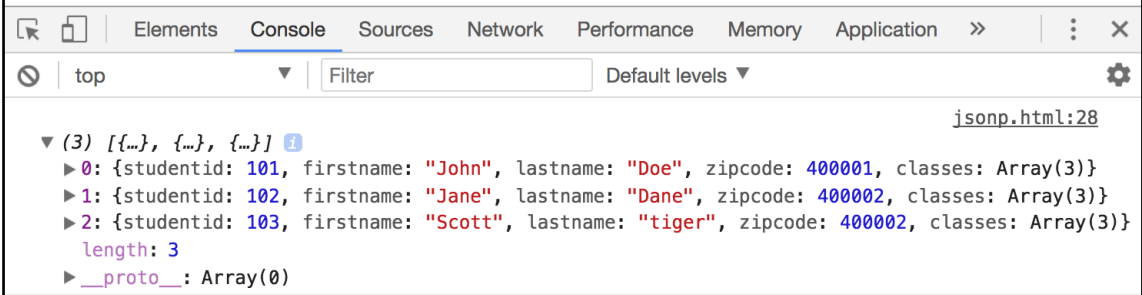
Cross origin request neither handled at server nor at client side



```
untitled
1
2 myCallback({
3   "studentid": "101",
4   "firstname": "John",
5   "lastname": "Doe",
6   "classes": [
7     "Business Research",
8     "Economics",
9     "Finance"
10  ]
11 });
12
```

Asynchronous call for Students api

Cross request is not handled at server but at client

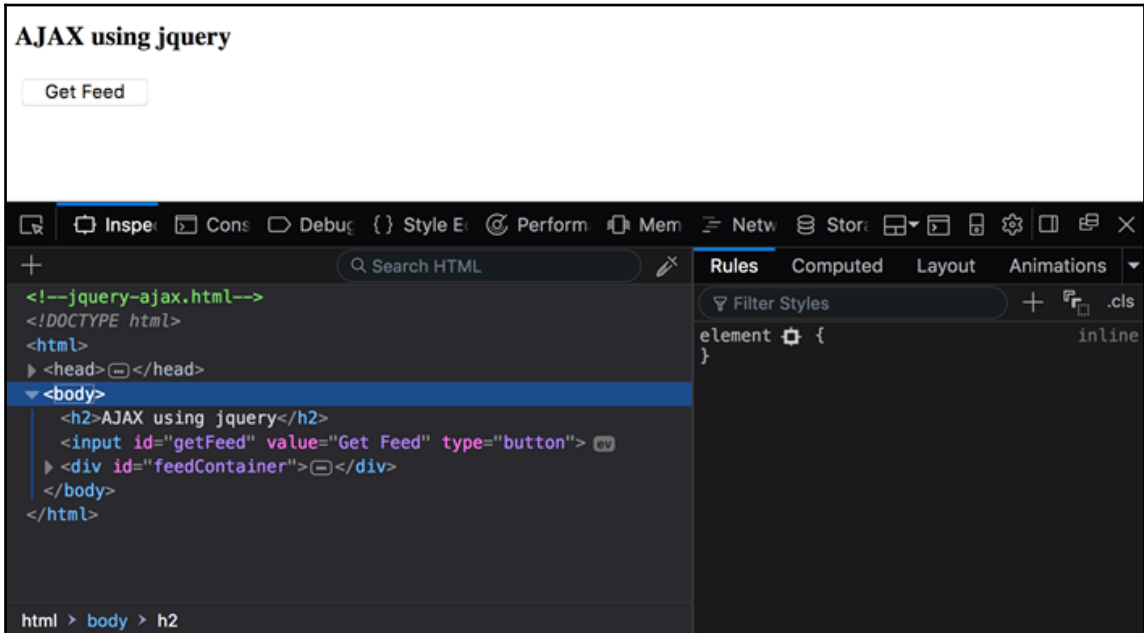


The screenshot shows a web browser's developer console with the 'Console' tab selected. The console displays a JSON array of three student objects. The objects are: 0: {studentid: 101, firstname: "John", lastname: "Doe", zipcode: 400001, classes: Array(3)}, 1: {studentid: 102, firstname: "Jane", lastname: "Dane", zipcode: 400002, classes: Array(3)}, and 2: {studentid: 103, firstname: "Scott", lastname: "tiger", zipcode: 400002, classes: Array(3)}. The console also shows the array's length as 3 and its prototype as Array(0). The source is identified as jsonp.html:28.

```
▼ (3) [{...}, {...}, {...}] ⓘ  
  ▶ 0: {studentid: 101, firstname: "John", lastname: "Doe", zipcode: 400001, classes: Array(3)}  
  ▶ 1: {studentid: 102, firstname: "Jane", lastname: "Dane", zipcode: 400002, classes: Array(3)}  
  ▶ 2: {studentid: 103, firstname: "Scott", lastname: "tiger", zipcode: 400002, classes: Array(3)}  
    length: 3  
  ▶ __proto__: Array(0)  
jsonp.html:28
```

Chapter 5: Debugging JSON

AJAX using jquery



```
<!--jquery-ajax.html-->
<!DOCTYPE html>
<html>
  <head>
  </head>
  <body>
    <h2>AJAX using jquery</h2>
    <input id="getFeed" value="Get Feed" type="button">
    <div id="feedContainer">
  </body>
</html>
```

html > body > h2

AJAX using jquery

Student Id is 101 and the student name is John and Doe
Student Id is 102 and the student name is Jane and Dane



```
jsonData
[
  0: Object { studentid: 101, firstname: "John", lastname: "Doe", ... }
  1: Object { studentid: 102, firstname: "Jane", lastname: "Dane", ... }
  length: 2
  __proto__: Array []
]
jquery-ajax.html:35:17
```

AJAX using jquery

Student Id is 101 and the student name is John and Doe

Student Id is 102 and the student name is Jane and Dane

The screenshot shows the Chrome DevTools Network tab with the 'XHR' filter selected. A single request is visible with a status of 200 OK. The 'Headers' panel is expanded, showing the following details:

- Request URL: `http://localhost:3300/`
- Request method: `GET`
- Remote address: `[::1]:3300`
- Status code: `200 OK` (with a help icon)
- Version: `HTTP/1.1`

The 'Request headers' section is expanded, showing the following headers:

- `Accept: application/json, text/javascript, */*; q=0.01`
- `Accept-Encoding: gzip, deflate`
- `Accept-Language: en-US,en;q=0.5`
- `Connection: keep-alive`
- `Host: localhost:3300`

The bottom status bar indicates: One request | 210 B / 382 B transferred | Finish: 7.4ms

Secure | <https://jsonlint.com>

Apps For quick access, place your bookmarks here on the bookmarks bar. [Import bookmarks now...](#)

```
1  [{
2    "studentid": 101,
3    "firstname": "John",
4    "lastname": "Doe",
5    "classes": ["Business Research", "Economics", "Finance"]
6  }, {
7    "studentid": 102,
8    "firstname": "Jane",
9    "lastname": "Dane",
10   "classes": ["Marketing", "Economics", "Finance"]
11  }, ]
```

[Validate JSON](#) [Clear](#) [Support JSONLint for \\$2/Month](#)

Results

Error: Parse error on line 11:
...ics", "Finance"}},]
-----^
Expecting 'STRING', 'NUMBER', 'NULL', 'TRUE', 'FALSE', '{', '[', got ']'

For quick access, place your bookmarks here on the bookmarks bar. [Import bookmarks now..](#)

```
1  [{
2    "studentid": 101,
3    "firstname": "John",
4    "lastname": "Doe",
5    "classes": ["Business Research", "Economics", "Finance"]
6  }, {
7    "studentid": 102,
8    "firstname": "Jane",
9    "lastname": "Dane",
10   "classes": ["Marketing", "Economics", "Finance"]
11  }]
```

Validate JSON

Clear

Support JSONLint for \$2/Month

Results

Valid JSON

Secure | <https://jsoneditoronline.org>

Apps For quick access, place your bookmarks here on the bookmarks bar. [Import bookmarks now...](#)

JSON Editor Online

New Open Save Settings Help

powered by ace

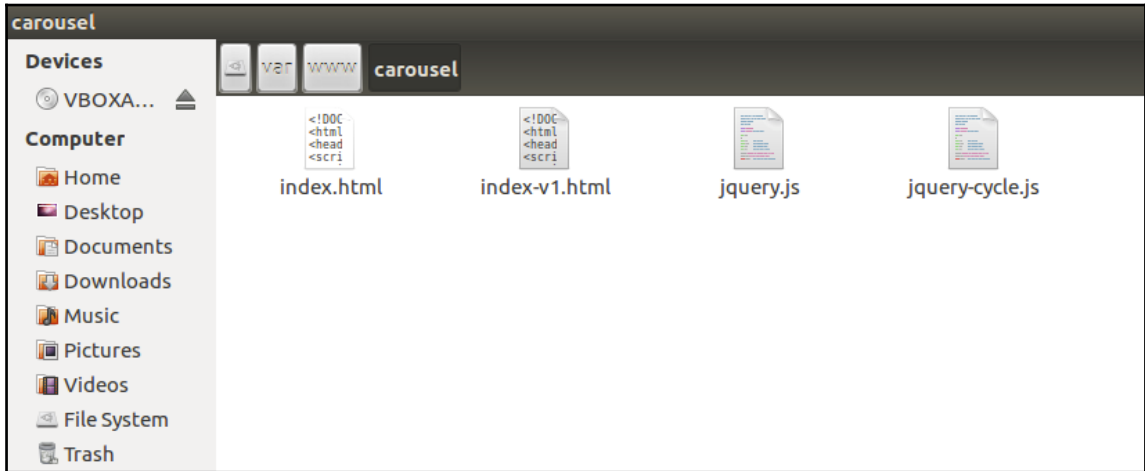
```
1 [
2   {
3     "studentid": 101,
4     "firstname": "John",
5     "lastname": "Doe",
6     "classes": [
7       "Business Research",
8       "Economics",
9       "Finance"
10    ]
11  },
12  {
13    "studentid": 102,
14    "firstname": "Jane",
15    "lastname": "Dane",
16    "classes": [
17      "Marketing",
18      "Economics",
19      "Finance"
20    ]
21  }
22 ]
```

Ln: 1 Col: 1

Select a node ...

- array [2]
 - 0 {4}
 - 1 {4}

Chapter 6: Building the Carousel Application



```
students.json x data-example1.json ● index-v1.html x
1
2 {
3   "studentid": "101",
4   "firstname": "John",
5   "lastname": "Doe",
6   "level": "Freshman",
7   "class": "Environmental Toxicology"
8 },
9
```

Freshman of the Month

John Doe

Environmental Toxicology

Senior of the Month

Jane Dane

Economics

expert of the Month

Scott tiger

Physics

Freshman of the Month

John Doe

Environmental Toxicology

[Prev](#) [Next](#)

expert of the Month

Scott tiger

Physics

[Prev](#) [Next](#)

expert of the Month

Scott tiger

Physics

The screenshot shows the Chrome DevTools Network tab. At the top, there are navigation links for 'Prev' and 'Next'. Below that, the text 'expert of the Month' and 'Scott tiger' is displayed, followed by 'Physics'. The main area shows a waterfall chart with a time scale from 0 to 100 ms. Two requests are visible: 'index.html' (1.0 KB, 1 ms) and 'bootstrap.min.css' (124 KB, 5 ms). Below the chart is a table with the following data:

Name	Status	Type	Initiator	Size	Time	Waterfall	100.00 ms
index.html /Users/bruno/D...	Finished	docu...	Other	1.0 KB 1.0 KB	1 ms 1 ms		
bootstrap.min.css /Users/bruno/D...	Finished	styles...	index.html Parser	0 B 124 KB	5 ms 4 ms		

Prev Next

Freshman of the Month

John Doe

Environmental Toxicology

div#students.container | 280.17 x 117

Elements Console Sources Network Performance Memory Application >> >> X

```

<!DOCTYPE html>
<html>
  <head>...</head>
  <body>
    <a href="#" id="prev">Prev</a>
    <a href="#" id="next">Next</a>
    <div id="students" class="container" style="position:
    relative; width: 280.172px; height: 117px;">...</div> ==
  </body>
</html>
  
```

Styles Computed Event Listeners >>

Filter :hov .cls +

```

element.style {
  position: relative;
  width: 280.172px;
  height: 117px;
}

@media (min-width: 576px)
.container {
  max-width: 540px;
}
  
```

Prev Next

Freshman of the Month

John Doe

Environmental Toxicology

expert of the Month

Scott tiger

Physics

Prev
Next

Chapter 7:

Alternate Implementations of JSON

```
composer.json x
1
2 {
3
4     "require":{
5         "php": ">=5.4.7"
6     },
7     "require-dev":{
8         "phpunit/phpunit": "3.7.*"
9     }
10
11 }
12
```

```
package.json x
1
2 {
3     "name": "TestNodeJSProject",
4     "version": "0.0.1",
5     "author": "Sai Sriparasa <sai.sriparasa@test.com>",
6     "dependencies": {
7         "async": "0.1.18",
8         "connect": "1.8.6",
9         "connect-assetmanager": "0.0.27",
10        "connect-auth": "0.5.1",
11        "connect-mongo": "0.1.7",
12        "cron": "0.3.0",
13        "email": "0.2.5",
14        "emailjs": "0.2.8",
15        "express": "2.5.10",
16        "express-form": "0.6.2",
17        "express-messages": "0.0.2",
18        "eyes": "0.1.7",
19        "fbgraph": "0.2.1",
20        "facebook-sdk": "0.3.2",
21        "jade": "0.26.0",
22        "moment": "1.7.0",
23        "mongodb": "1.0.2",
24    },
25     "engines": {"node": "0.6.x", "npm": "1.0.x"}
26 }
```

```
config.json x schema.json x
1
2 {
3
4     "PROJECT": "test project",
5     "ENV": "DEV",
6     "AUTOLOAD": [
7         "class1.php",
8         "class2.php",
9         "class3.php"
10    ],
11    "EXCLUDE": [
12        "project_x",
13        "vendor"
14    ],
15    "RECURSIVE": "true"
16
17 }
18
```

```
config.json x schema.json x
1
2 {
3
4     "client": {
5         "id": {
6             "type": "int",
7             "size": 11,
8             "primaryKey": "true",
9             "required": "true"
10        },
11        "name": {
12            "type": "varchar",
13            "size": 255,
14            "required": "true"
15        },
16        "enabled": {
17            "type": "tinyint",
18            "size": 4,
19            "required": "true",
20            "defaultValue": 1
21        }
22    }
23
24 }
25
```

- my-app
 - .vscode
 - e2e
 - node_modules
 - src
 - .angular-cli.json
 - .editorconfig
 - .gitignore
 - gulpFile.js
 - karma.conf.js
 - package-lock.json
 - package.json
 - protractor.conf.js
 - README.md
 - tsconfig.json
 - tslint.json

```
package-lock.json — Untitled (Workspace)

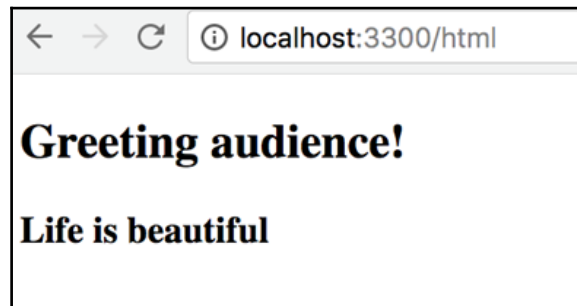
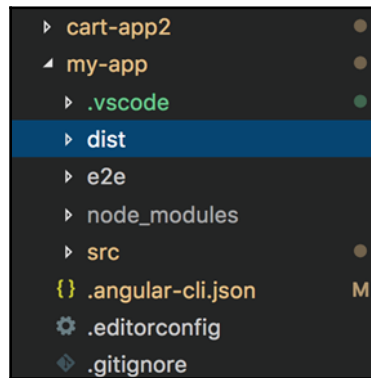
() package-lock.json x
1 {
2   "name": "phonebook-app2",
3   "version": "0.0.0",
4   "lockfileVersion": 1,
5   "requires": true,
6   "dependencies": {
7     "@angular-devkit/build-optimizer": {
8       "version": "0.0.13",
9       "resolved": "https://registry.npmjs.org/@angular-devkit/build-optimizer/-/build-op
10      "integrity": "sha512-yEMkYU4YU8XlA50auPhg22ZEWJ4X2Vh1FKUwfeo4UWJ7lz4XWiuBJocrT5NHw
11      "dev": true,
12      "requires": {
13        "loader-utils": "1.1.0",
14        "source-map": "0.5.7",
15        "typescript": "2.3.4"
16      }
17    },
18    "@angular/animations": {
19      "version": "4.4.6",
20      "resolved": "https://registry.npmjs.org/@angular/animations/-/animations-4.4.6.tgz
21      "integrity": "sha1-mYYmaik44y3xYPHpc185l1ZKjU=",
22      "requires": {
23        "tslib": "1.8.0"
24      }
25    },
26    "@angular/cli": {
27      "version": "1.3.2",
28      "resolved": "https://registry.npmjs.org/@angular/cli/-/cli-1.3.2.tgz",
```

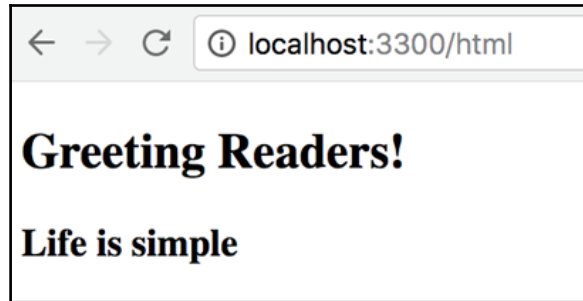

{ } .angular-cli.json ×

```
1  {
2    "$schema": "./node_modules/@angular/cli/lib/config/schema.json",
3    "project": {
4      "name": "my-app"
5    },
6    "apps": [
7      {
8        "root": "src",
9        "outDir": "dist",
10       "assets": [
11         "assets",
12         "favicon.ico"
13       ],
14       "index": "index.html",
15       "main": "main.ts",
16       "polyfills": "polyfills.ts",
17       "test": "test.ts",
18       "tsconfig": "tsconfig.app.json",
19       "testTsconfig": "tsconfig.spec.json",
20       "prefix": "app",
21       "styles": [
22         "styles.css"
23       ],
24       "scripts": [],
25       "environmentSource": "environments/environment.ts",
26       "environments": {
27         "dev": "environments/environment.ts",
28         "prod": "environments/environment.prod.ts"
```

```
Last login: Wed Apr 11 17:14:12 on ttys010
brunos-MacBook-Pro:my-app bruno$ ng serve --app 0
** NG Live Development Server is listening on localhost:4200, open your browser on http://localhost:4200
**
Date: 2018-04-11T16:37:16.281Z
Hash: fd7734d6620b30a52717
Time: 9010ms
chunk {inline} inline.bundle.js, inline.bundle.js.map (inline) 5.83 kB [entry] [rendered]
chunk {main} main.bundle.js, main.bundle.js.map (main) 6.03 kB {vendor} [initial] [rendered]
chunk {polyfills} polyfills.bundle.js, polyfills.bundle.js.map (polyfills) 199 kB {inline} [initial] [rendered]
chunk {styles} styles.bundle.js, styles.bundle.js.map (styles) 11.3 kB {inline} [initial] [rendered]
chunk {vendor} vendor.bundle.js, vendor.bundle.js.map (vendor) 2.29 MB [initial] [rendered]

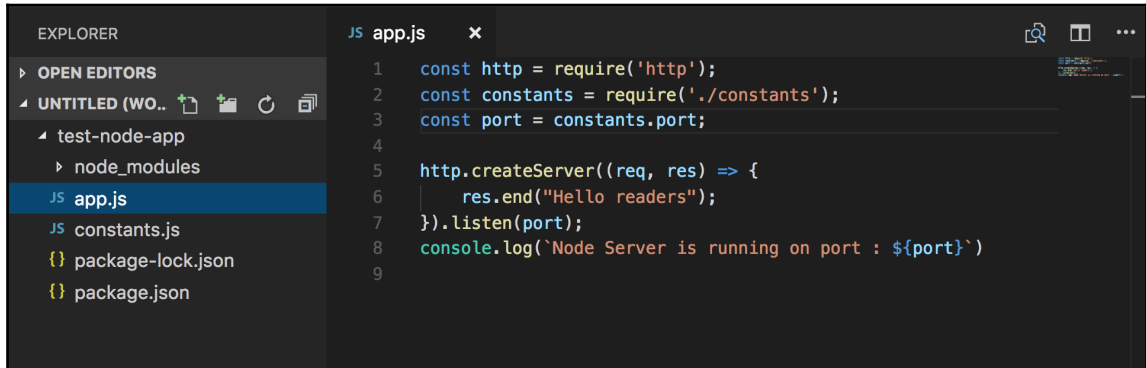
webpack: Compiled successfully.
```





```
schema.json x config.yaml x
1
2
3 PROJECT: "test project"
4 ENV: "DEV"
5 AUTOLOAD:
6   - "class1.php"
7   - "class2.php"
8   - "class3.php"
9 EXCLUDE:
10  - "project_x"
11  - "vendor"
12 RECURSIVE: "true"
13
```

Chapter 8: Introduction to hapi.js



The screenshot shows the Visual Studio Code editor interface. On the left, the Explorer sidebar shows a project named 'test-node-app' with a 'node_modules' directory and files 'app.js', 'constants.js', 'package-lock.json', and 'package.json'. The main editor window displays the content of 'app.js' with the following code:

```
1  const http = require('http');
2  const constants = require('./constants');
3  const port = constants.port;
4
5  http.createServer((req, res) => {
6    res.end("Hello readers");
7  }).listen(port);
8  console.log(`Node Server is running on port : ${port}`)
9
```

```
brunos-MacBook-Pro:test-node-app bruno$ node app.js
Server running at: http://brunos-MacBook-Pro.local:3300
```

```
> node app.js
A plugin got called!
Server running at: http://brunos-MacBook-Pro.local:3300
Listening to request!
The target is undefined for url : /greetings
Listening to request!
The target is undefined for url : /favicon.ico
```

New Tab + ... No Environment

GET Enter request URL Params Send Save

Authorization Headers Body Pre-request Script Tests Code

Type No Auth

Response

Hit the Send button to get a response.

Do more with requests

Share Mock Monitor Document

GET http://localhost:3300/greetings?target=developers Params Send Save

Key	Value	Description	...	Bulk Edit
<input checked="" type="checkbox"/> target	developers			
New key	Value	Description		

Authorization Headers Body Pre-request Script Tests Code

Type No Auth

Body Cookies Headers (6) Test Results Status: 200 OK Time: 133 ms

Pretty Raw Preview HTML

```

1 hello readers!

```

Filter

History Collections

Clear all

▼ Today

- GET http://localhost:3300/get=developers

▼ January 10

- GET http://localhost:3300/s/performance
- GET http://localhost:3300/s/performance
- GET http://localhost:3300/online/report

- + Save Request
- Share Request
- Monitor Request
- Document Request
- Mock Request
- Delete

SAVE REQUEST



Requests in Postman are saved in collections (a group of requests).

[Learn more about creating collections](#)

Request name

Greetings url

Request description (Optional)

Adding a description makes your docs better

Descriptions support Markdown

Select a collection or folder to save to:

Search for a collection or folder

All Collections

[+ Create Collection](#)

node-test-app



BO apis

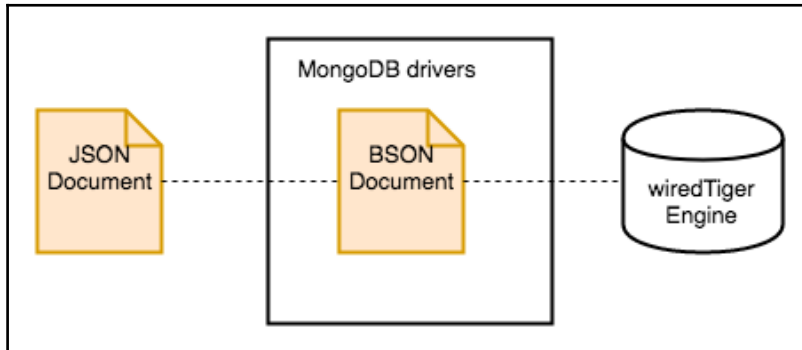
Global apis

Cancel

Save

Chapter 9: Storing JSON Documents in MongoDB

```
Last login: Tue Jan 23 11:05:10 on ttys008
brunos-MacBook-Pro:~ bruno$ mongod
2018-01-30T11:12:53.470+0530 I CONTROL [initandlisten] MongoDB starting : pid=13488 port=27017 dbpath=/data/db 64-bit host=brunos-MacBook-Pro.local
2018-01-30T11:12:53.470+0530 I CONTROL [initandlisten] db version v3.6.2
2018-01-30T11:12:53.470+0530 I CONTROL [initandlisten] git version: 489d177dbd0f0420a8ca04d39fd78d0a2c539420
2018-01-30T11:12:53.470+0530 I CONTROL [initandlisten] OpenSSL version: OpenSSL 1.0.2n 7 Dec 2017
2018-01-30T11:12:53.470+0530 I CONTROL [initandlisten] allocator: system
2018-01-30T11:12:53.470+0530 I CONTROL [initandlisten] modules: none
2018-01-30T11:12:53.470+0530 I CONTROL [initandlisten] build environment:
2018-01-30T11:12:53.470+0530 I CONTROL [initandlisten]   distarch: x86_64
2018-01-30T11:12:53.470+0530 I CONTROL [initandlisten]   target_arch: x86_64
2018-01-30T11:12:53.470+0530 I CONTROL [initandlisten] options: {}
2018-01-30T11:12:53.470+0530 I - [initandlisten] Detected data files in /data/db created by the 'wiredTiger' storage engine, so setting the active stor
age engine to 'wiredTiger'
2018-01-30T11:12:53.471+0530 I STORAGE [initandlisten] wiredtiger_open config: create,cache_size=3584M,session_max=20000,eviction=(threads_min=4,threads_max=
4),config_base=false,statistics=(fast),log=(enabled=true,archive=true,path=journal,compressor=snappy),file_manager=(close_idle_time=100000),statistics_log=(wa
it=0),verbose=(recovery_progress),
2018-01-30T11:12:53.692+0530 I STORAGE [initandlisten] WiredTiger message [1517290973:692842][13488:0x7fff892b9340], txn-recover: Main recovery loop: startin
g at 13/768
2018-01-30T11:12:53.804+0530 I STORAGE [initandlisten] WiredTiger message [1517290973:804444][13488:0x7fff892b9340], txn-recover: Recovering log 13 through 1
4
2018-01-30T11:12:53.887+0530 I STORAGE [initandlisten] WiredTiger message [1517290973:887801][13488:0x7fff892b9340], txn-recover: Recovering log 14 through 1
4
2018-01-30T11:12:54.096+0530 I CONTROL [initandlisten]
2018-01-30T11:12:54.096+0530 I CONTROL [initandlisten] ** WARNING: Access control is not enabled for the database.
2018-01-30T11:12:54.096+0530 I CONTROL [initandlisten] **      Read and write access to data and configuration is unrestricted.
2018-01-30T11:12:54.096+0530 I CONTROL [initandlisten]
2018-01-30T11:12:54.096+0530 I CONTROL [initandlisten] ** WARNING: This server is bound to localhost.
2018-01-30T11:12:54.096+0530 I CONTROL [initandlisten] **      Remote systems will be unable to connect to this server.
2018-01-30T11:12:54.096+0530 I CONTROL [initandlisten] **      Start the server with --bind_ip <address> to specify which IP
addresses it should serve responses from, or with --bind_ip_all to
bind to all interfaces. If this behavior is desired, start the
server with --bind_ip 127.0.0.1 to disable this warning.
2018-01-30T11:12:54.103+0530 I FTDC [initandlisten] Initializing full-time diagnostic data capture with directory '/data/db/diagnostic.data'
2018-01-30T11:12:54.104+0530 I NETWORK [initandlisten] waiting for connections on port 27017
```




```

Last login: Fri Feb  2 09:23:10 on ttys007
brunos-MacBook-Pro:~ bruno$ mongo
MongoDB shell version v3.6.2
connecting to: mongod://127.0.0.1:27017
MongoDB server version: 3.6.2
Server has startup warnings:
2018-02-02T09:33:41.797+0530 I CONTROL [initandlisten]
2018-02-02T09:33:41.797+0530 I CONTROL [initandlisten] ** WARNING: Access control is not enabled for the database.
2018-02-02T09:33:41.797+0530 I CONTROL [initandlisten] ** Read and write access to data and configuration is unrestricted.
2018-02-02T09:33:41.797+0530 I CONTROL [initandlisten]
2018-02-02T09:33:41.797+0530 I CONTROL [initandlisten] ** WARNING: This server is bound to localhost.
2018-02-02T09:33:41.797+0530 I CONTROL [initandlisten] ** Remote systems will be unable to connect to this server.
2018-02-02T09:33:41.797+0530 I CONTROL [initandlisten] ** Start the server with --bind_ip <address> to specify which IP
2018-02-02T09:33:41.797+0530 I CONTROL [initandlisten] ** addresses it should serve responses from, or with --bind_ip_all to
2018-02-02T09:33:41.797+0530 I CONTROL [initandlisten] ** bind to all interfaces. If this behavior is desired, start the
2018-02-02T09:33:41.797+0530 I CONTROL [initandlisten] ** server with --bind_ip 127.0.0.1 to disable this warning.
2018-02-02T09:33:41.797+0530 I CONTROL [initandlisten]
2018-02-02T09:33:41.797+0530 I CONTROL [initandlisten] ** WARNING: soft rlimits too low. Number of files is 256, should be at least 1000
> show dbs
admin      0.000GB
local      0.000GB
restaurants 0.000GB
test       0.000GB
> use test
switched to db test
>

```

```

> db.customers.insert({"cust_id":1,"firstname":"John","lastname":"Doe","Address":{"pincode":"900001","street":"3305 Tenmile","city":"LA"}})
WriteResult({"nInserted" : 1 })
> db.customers.insert({
...   "cust_id": 2,
...   "firstname": "smith",
...   "lastname": "Tiger",
...   "Address":
...   {
...     "pincode": "900002",
...     "street": "3305 Twentymile",
...     "city": "LA"
...   }
... })
WriteResult({"nInserted" : 1 })
>
> db.customers.find().pretty()
{
  "_id" : ObjectId("5a73e93236b515b8decde684"),
  "cust_id" : 1,
  "firstname" : "John",
  "lastname" : "Doe",
  "Address" : {
    "pincode" : "900001",
    "street" : "3305 Tenmile",
    "city" : "LA"
  }
}
{
  "_id" : ObjectId("5a73eb2436b515b8decde685"),
  "cust_id" : 2,
  "firstname" : "smith",
  "lastname" : "Tiger",
  "Address" : {
    "pincode" : "900002",
    "street" : "3305 Twentymile",
    "city" : "LA"
  }
}
>

```

http://localhost:3300/customer/add POST URL params Headers (1)

Content-Type application/json Manage presets

Header Value

form-data x-www-form-urlencoded raw JSON

```
1 {
2   "firstname": "John",
3   "lastname": "Doe",
4   "Address":
5     {
6       "pincode": "900001",
7       "street": "3305 Tenmile",
8       "city": "LA"
9     }
10 }
11
```

Send Preview Add to collection Reset

Body Headers (5) STATUS 200 OK TIME 127 ms

Pretty Raw Preview JSON XML

```
1 customer added successfully
```

http://localhost:3300/customer/add POST URL params Headers (1) Settings

Content-Type application/json Manage presets

Header Value

form-data x-www-form-urlencoded raw JSON

```
1 {
2   "firstname": "Scott",
3   "lastname": "tiger",
4   "Address":
5     {
6       "pincode": "900021",
7       "street": "3305 Twentymile",
8       "city": "AL"
9     }
10 }
11
```

Send Preview Add to collection Reset

Body Headers (5) STATUS 200 OK TIME 111 ms

Pretty Raw Preview JSON XML

```
1 {
2   "message": "customer added successfully",
3   "customerList": [
4     {
5       "id": "5a744ab8672d0609810c58c5",
6       "firstname": "John",
7       "lastname": "Doe",
8       "Address": {
9         "pincode": "900001",
10        "street": "3305 Tenmile",

```

http://localhost:3300/customer/add POST URL params Headers (1)

Content-Type application/json ✕ Manage presets

Header Value

form-data x-www-form-urlencoded raw JSON ▾

```
1 {
2
3   "firstname": "Bron",
4   "lastname": "Dave",
5   "Address": {
6     "pincode": 123456,
7     "street": "Thirtymile",
8     "city": "LC"
9   }
10 }
11
```

Send Preview Add to collection Reset

Body Cookies (1) Headers (7) STATUS 200 OK TIME 215 ms

Pretty Raw Preview [Icons] JSON XML

```
1 {
2   "message": "customer added successfully",
```

Chapter 10: Configuring the Task Runner Using JSON

```
Last login: Mon Feb 19 12:45:11 on ttys009
brunos-MacBook-Pro:chapter 10 bruno$ gulp
[17:13:03] Using gulpfile ~/Documents/projects/js/book/json_essential/codes/chapter 10/gulpfile.js
[17:13:03] Starting 'default'...
Greeting Readers!
[17:13:03] Finished 'default' after 155 μs
brunos-MacBook-Pro:chapter 10 bruno$
```

```
brunos-MacBook-Pro:chapter 10 bruno$ gulp
[17:26:13] Using gulpfile ~/Documents/projects/js/book/json_essential/codes/chapter 10/gulpfile.js
[17:26:13] Starting 'dependent-task'...
Greetings to all!
[17:26:13] Finished 'dependent-task' after 184 μs
[17:26:13] Starting 'default'...
Greetings to Readers!
[17:26:13] Finished 'default' after 108 μs
brunos-MacBook-Pro:chapter 10 bruno$
```

```
brunos-MacBook-Pro:chapter 10 bruno$ ./node_modules/mocha/bin/mocha routes.specs.js

Test routes
Testing the /greeting route
  ✓ Testing GET: greetings

1 passing (7ms)
```

```
brunos-MacBook-Pro:chapter 10 bruno$ npm test
> gulp-file@1.0.0 test /Users/bruno/Documents/projects/js/book/json essential/codes/chapter 10
> ./node_modules/mocha/bin/mocha routes.specs.js

Test routes
Testing the /greetings route
  ✓ Testing GET: greetings

1 passing (18ms)

statusCode 200
body hello readers
```

```
brunos-MacBook-Pro:chapter 10 bruno$ npm test
> gulp-file@1.0.0 test /Users/bruno/Documents/projects/js/book/json essential/codes/chapter 10
> ./node_modules/mocha/bin/mocha routes.specs.js

Test routes
Testing the /greetings route
  1) Testing GET: greetings

0 passing (29ms)
1 failing

1) Test routes
   Testing GET: greetings:

   Uncaught AssertionError [ERR_ASSERTION]: 200 == 400
   + expected - actual

   -200
   +400

   at Request.request.get [as _callback] (routes.specs.js:11:11)
   at Request.self.callback (node_modules/request/request.js:186:22)
   at Request.<anonymous> (node_modules/request/request.js:1163:10)
   at IncomingMessage.<anonymous> (node_modules/request/request.js:1085:12)
   at endReadableNT (_stream_readable.js:1056:12)
   at _combinedTickCallback (internal/process/next_tick.js:138:11)
   at process._tickCallback (internal/process/next_tick.js:180:9)
```

```
brunos-MacBook-Pro:chapter 10 bruno$ npm test
```

```
> gulp-file@1.0.0 test /Users/bruno/Documents/projects/js/book/json_essential/codes/chapter_10
> ./node_modules/mocha/bin/mocha routes.specs.js
```

```
Test routes
Testing the /greetings route
  ✓ Testing GET: greetings
Testing the /customer/add route
  ✓ Testing GET: customer/add
```

```
2 passing (35ms)
```

```
brunos-MacBook-Pro:chapter 10 bruno$ gulp Test-API-Flow
```

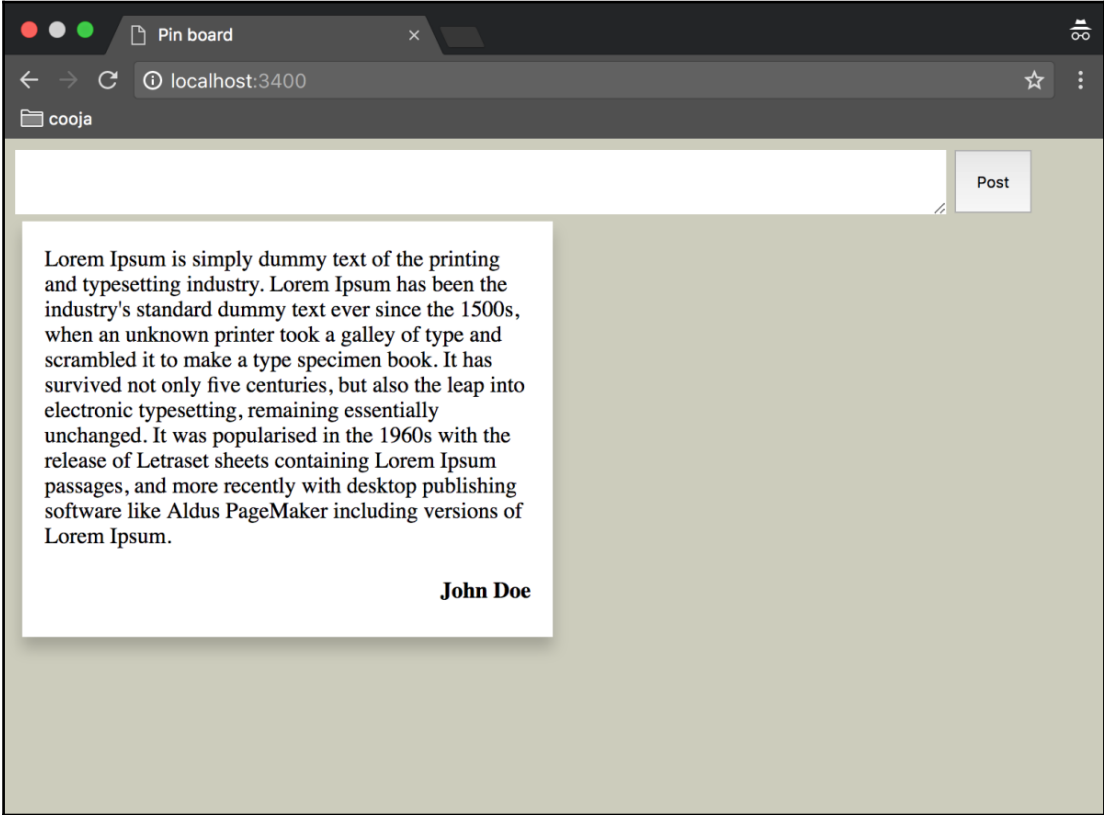
```
[12:19:18] Using gulpfile ~/Documents/projects/js/book/json_essential/codes/chapter_10/gulpfile.js
[12:19:18] Starting 'Test-API-Flow'...
[12:19:18] Starting 'start-app'...
[12:19:18] Finished 'start-app' after 4.89 ms
[12:19:18] Starting 'test-routes'...
[12:19:18] Finished 'Test-API-Flow' after 17 ms
```

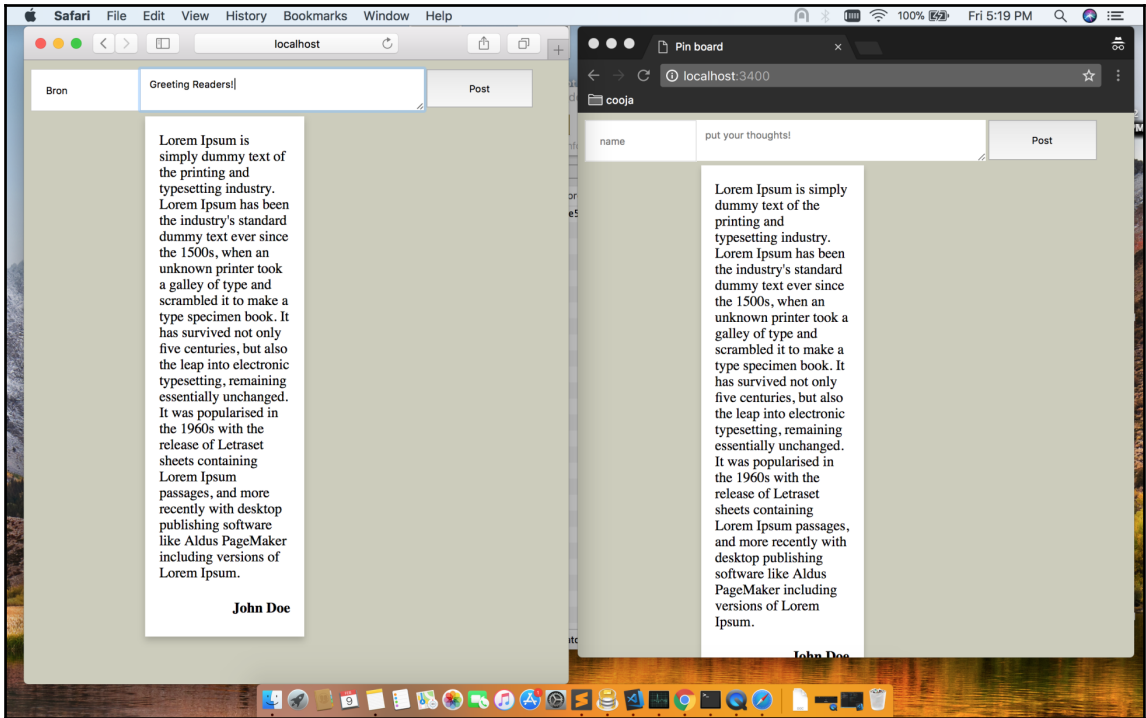
```
Test routes
Testing the /greetings route
  ✓ Testing GET: greetings
Testing the /customer/add route
  ✓ Testing GET: customer/add
```

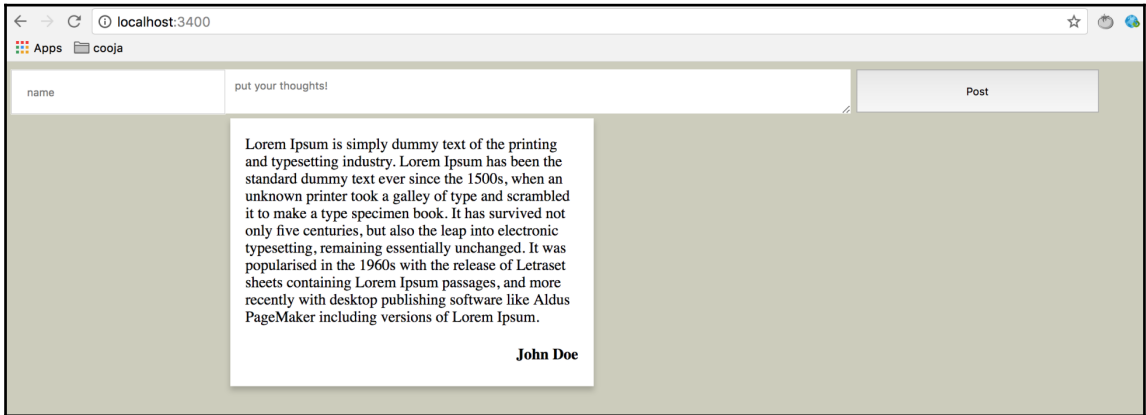
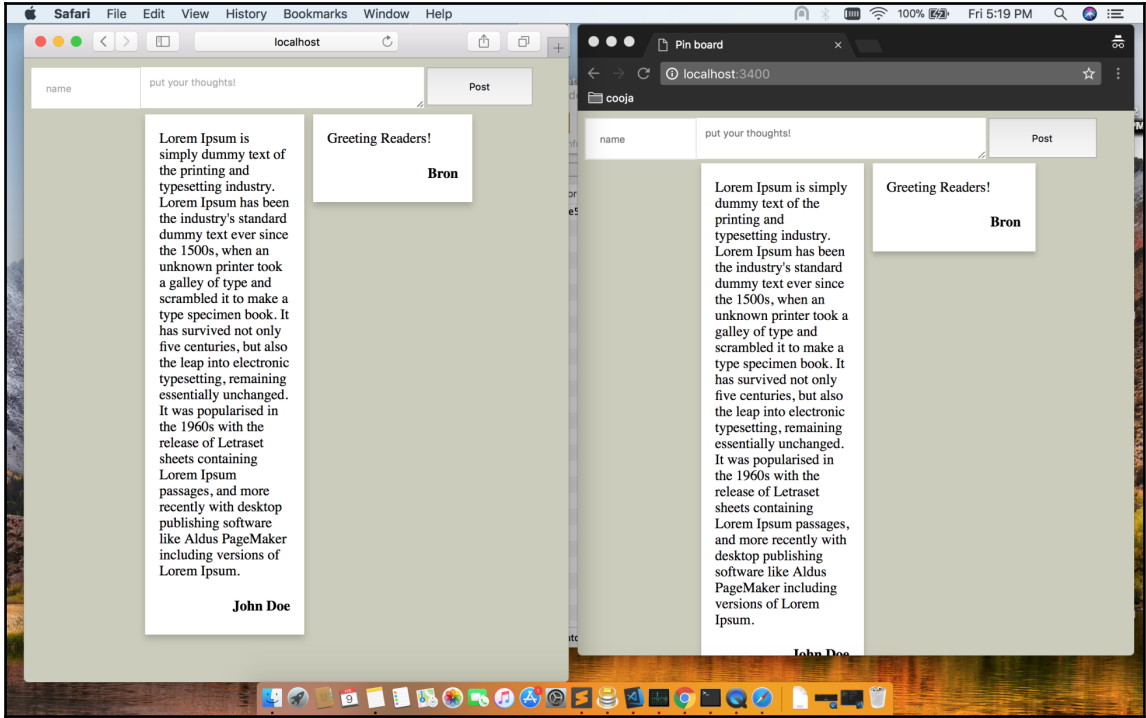
```
2 passing (38ms)
```

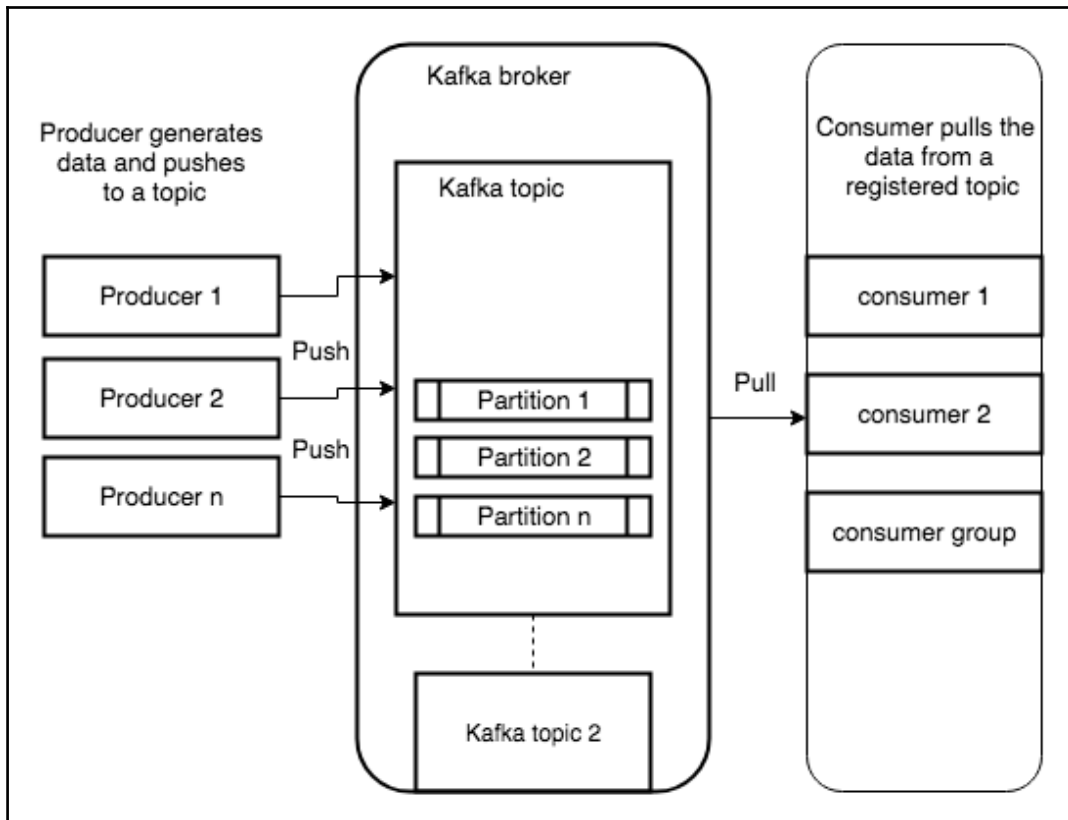
```
[12:19:19] Finished 'test-routes' after 477 ms
[12:19:19] Starting 'stop-app'...
brunos-MacBook-Pro:chapter 10 bruno$
```

Chapter 11: JSON for Real-Time and Distributed Data









```

Last login: Fri Feb 23 11:43:05 on ttys007
brunos-MacBook-Pro:kafka_2.11-1.0.0 bruno$ bin/zookeeper-server-start.sh config/zookeeper.properties
[2018-02-24 07:26:40,552] INFO Reading configuration from: config/zookeeper.properties (org.apache.zookeeper.server.quorum.QuorumPeerConfig)
[2018-02-24 07:26:40,554] INFO autopurge.snapRetainCount set to 3 (org.apache.zookeeper.server.DataDirCleanupManager)
[2018-02-24 07:26:40,554] INFO autopurge.purgeInterval set to 0 (org.apache.zookeeper.server.DataDirCleanupManager)
[2018-02-24 07:26:40,554] INFO Purge task is not scheduled. (org.apache.zookeeper.server.DataDirCleanupManager)
[2018-02-24 07:26:40,554] WARN Either no config or no quorum defined in config, running in standalone mode (org.apache.zookeeper.server.quorum.QuorumPeerMain)
[2018-02-24 07:26:40,576] INFO Reading configuration from: config/zookeeper.properties (org.apache.zookeeper.server.quorum.QuorumPeerConfig)
[2018-02-24 07:26:40,577] INFO Starting server (org.apache.zookeeper.server.ZooKeeperServerMain)

```

```

brunos-MacBook-Pro:chapter 11 bruno$ node kafka-app.js
Producer will send message at every interval of 1 min
Waiting for 1 min...
Message send by producer null { pinBoard: { '0': 23 } }

```

```
brunos-MacBook-Pro:kafka_2.11-1.0.0 bruno$ bin/kafka-console-consumer.sh --bootstrap-server localhost:9092 --topic pinBoard --from-beginning
```

```
{"story":"You cannot shake hands with a clenched fist","writtenBy":"Indira Gandhi"}  
{"story":"When you reach the end of your rope","writtenBy":"tie a knot in it and hang on"}  
{"story":"Learning never exhausts the mind","writtenBy":"Leonardo da Vinci"}  
{"story":"You cannot shake hands with a clenched fist","writtenBy":"Indira Gandhi"}  
{"story":"When you reach the end of your rope","writtenBy":"tie a knot in it and hang on"}  
{"story":"No act of kindness, no matter how small","writtenBy":"Aesop"}  
{"story":"When you reach the end of your rope.. tie a knot in it and hang on","writtenBy":"Franklin D. Roosevelt"}  
{"story":"But man is not made for defeat. A man can be destroyed but not defeated","writtenBy":"Ernest Hemingway"}  
{"story":"When you reach the end of your rope.. tie a knot in it and hang on","writtenBy":"Franklin D. Roosevelt"}  
{"story":"There is nothing permanent except change","writtenBy":"Heraclitus"}  
{"story":"You cannot shake hands with a clenched fist","writtenBy":"Indira Gandhi"}  
{"story":"Learning never exhausts the mind","writtenBy":"Leonardo da Vinci"}
```

