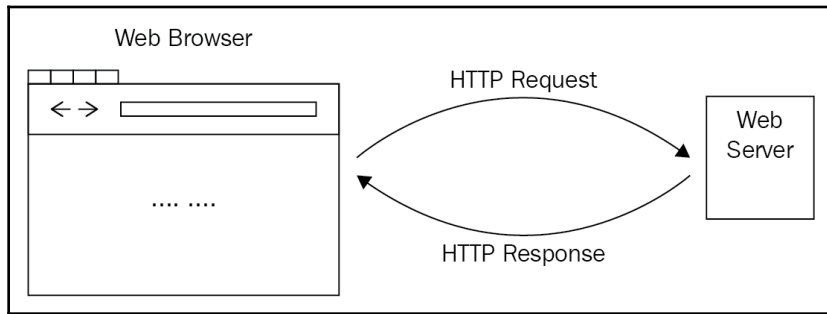
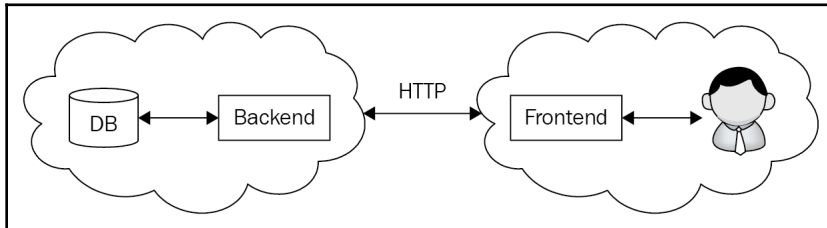
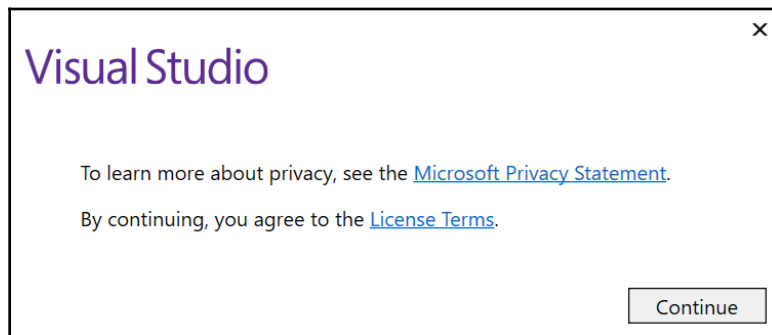
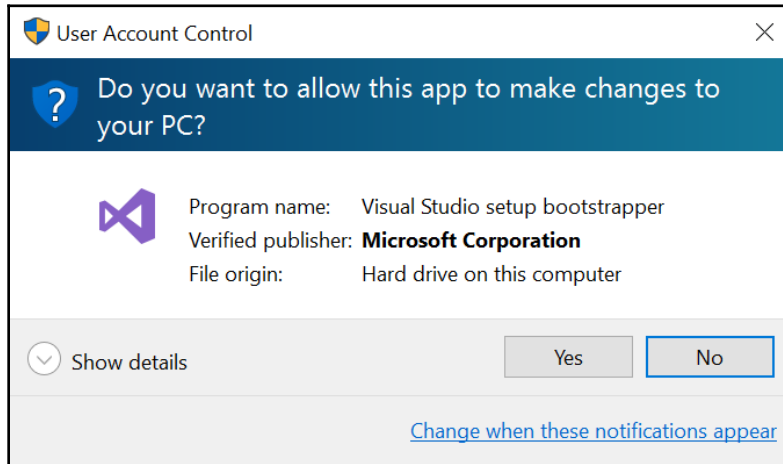


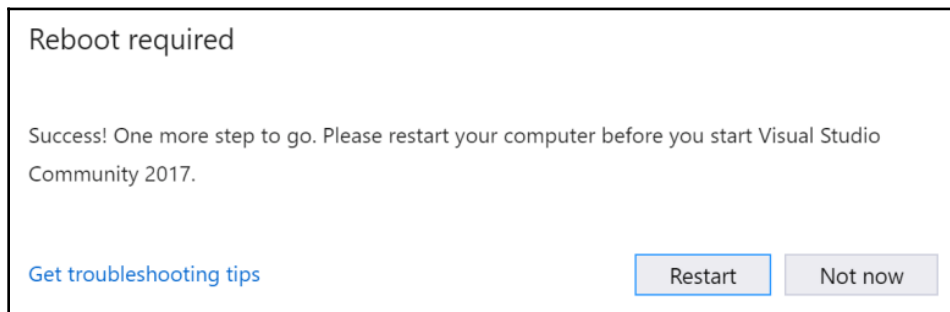
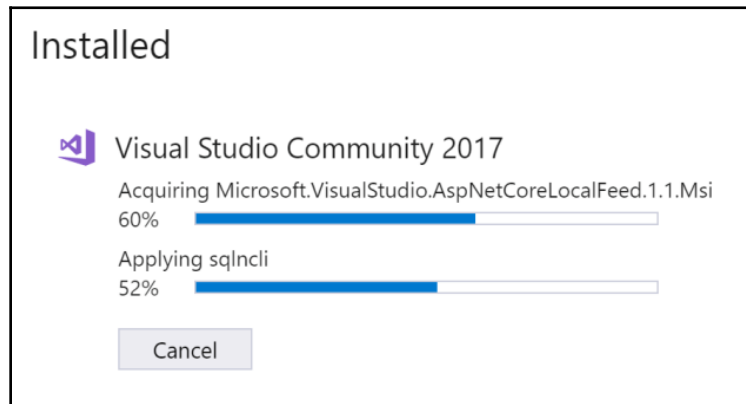
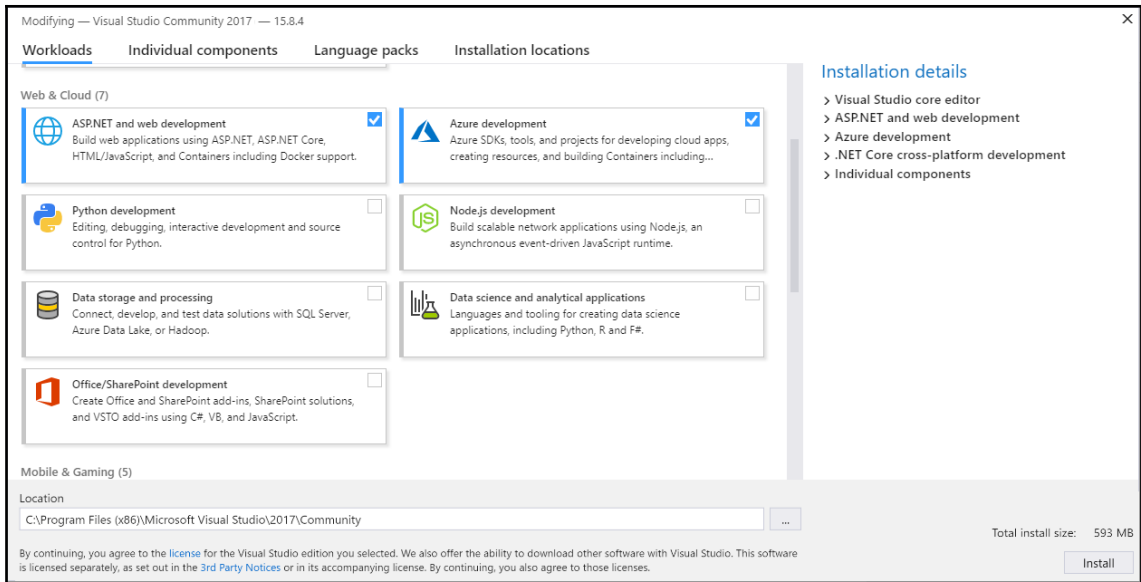
# Chapter 1: Becoming a Full Stack .NET Developer

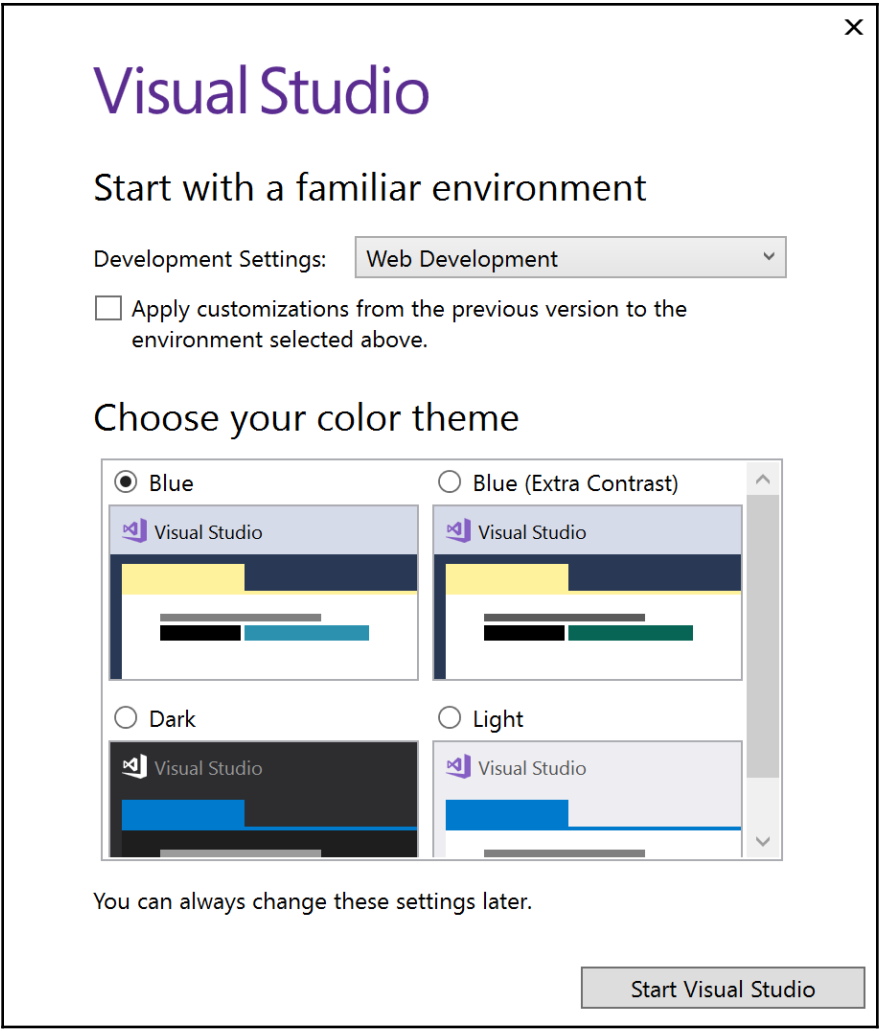


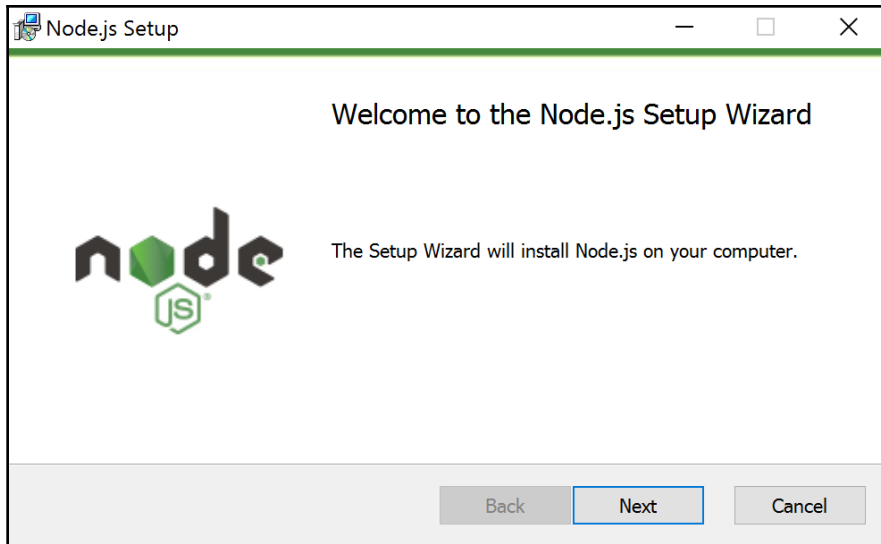
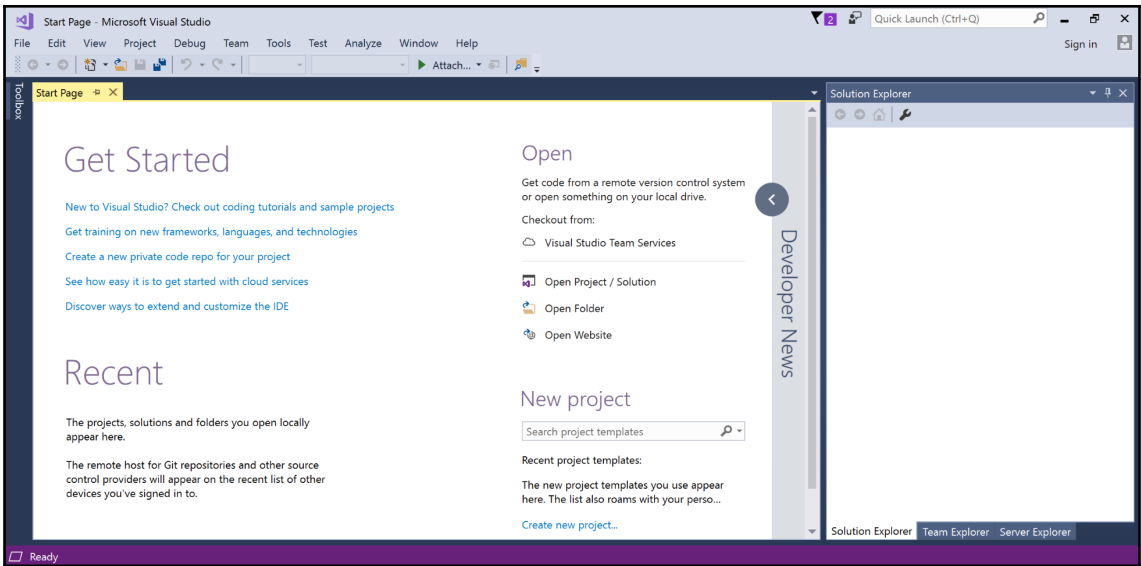
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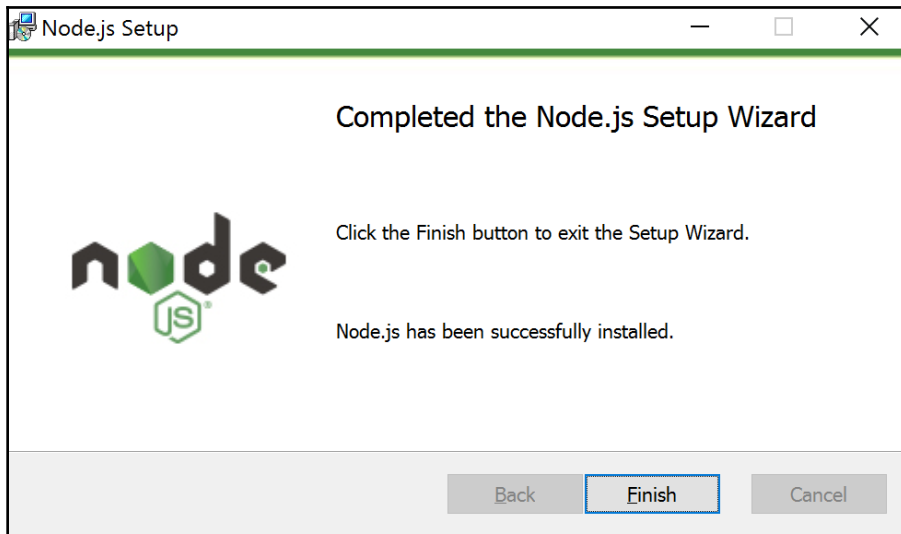
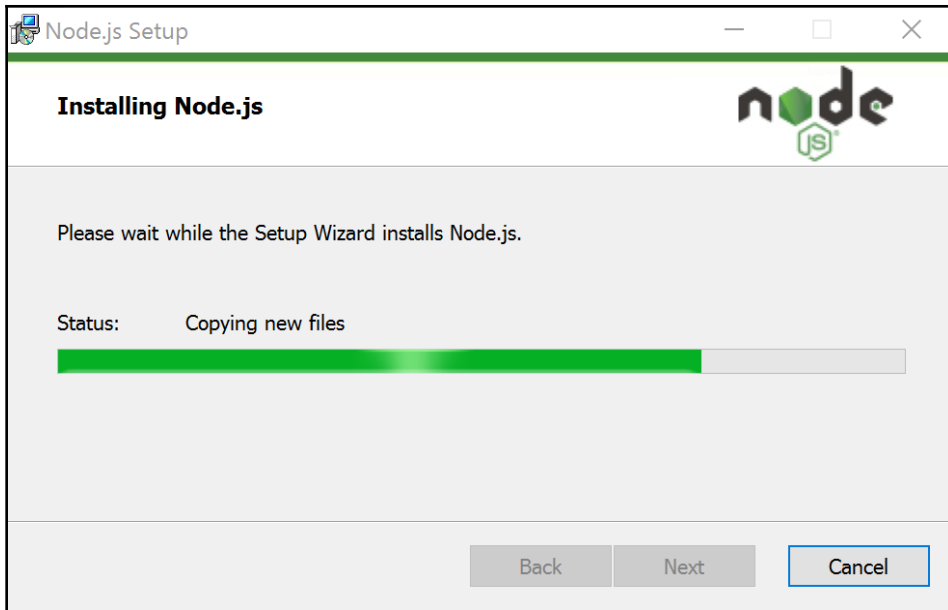
# Chapter 2: Setting Up Your Development Environment











```
Command Prompt
Microsoft Windows [Version 10.0.10586]
(c) 2015 Microsoft Corporation. All rights reserved.

C:\Users\shayi>node --version
v6.11.3

C:\Users\shayi>
```

## Download Chrome for Windows

For Windows 10/8.1/8/7 64-bit

### Google Chrome Terms of Service

These Terms of Service apply to the executable code version of Google Chrome. Source code for Google Chrome is available free of charge under open source software license agreements at <http://code.google.com/chromium/terms.html>.

**1. Your relationship with Google**

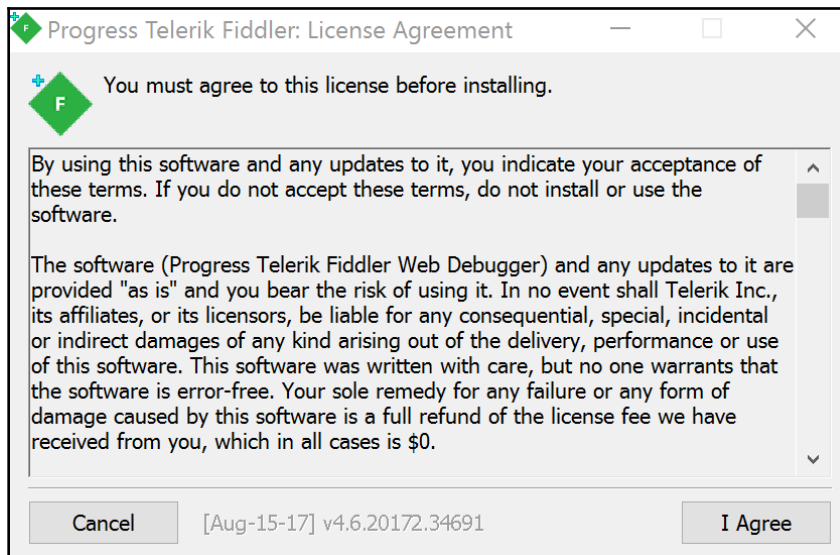
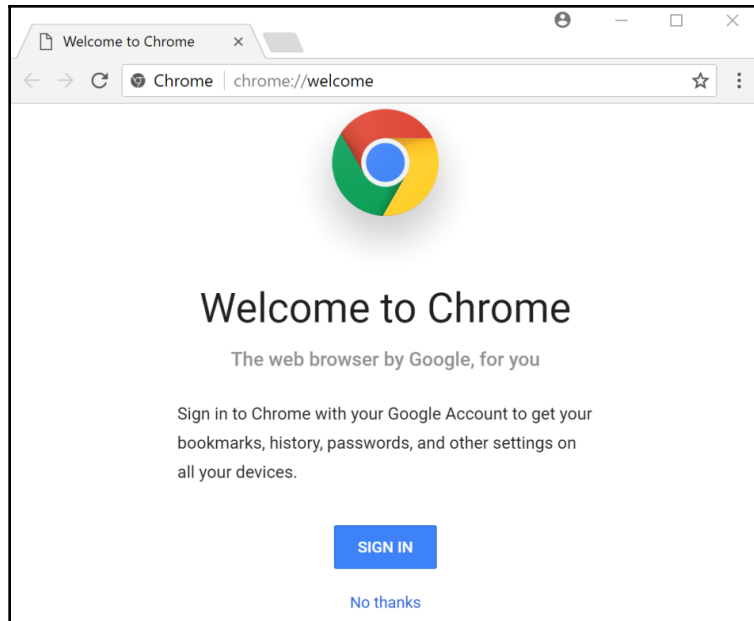
1.1 Your use of Google's products, software, services and web sites (referred to collectively as the "Services" in this document and excluding any services provided to you by Google under a separate written agreement) is

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[Learn more](#)

**ACCEPT AND INSTALL**

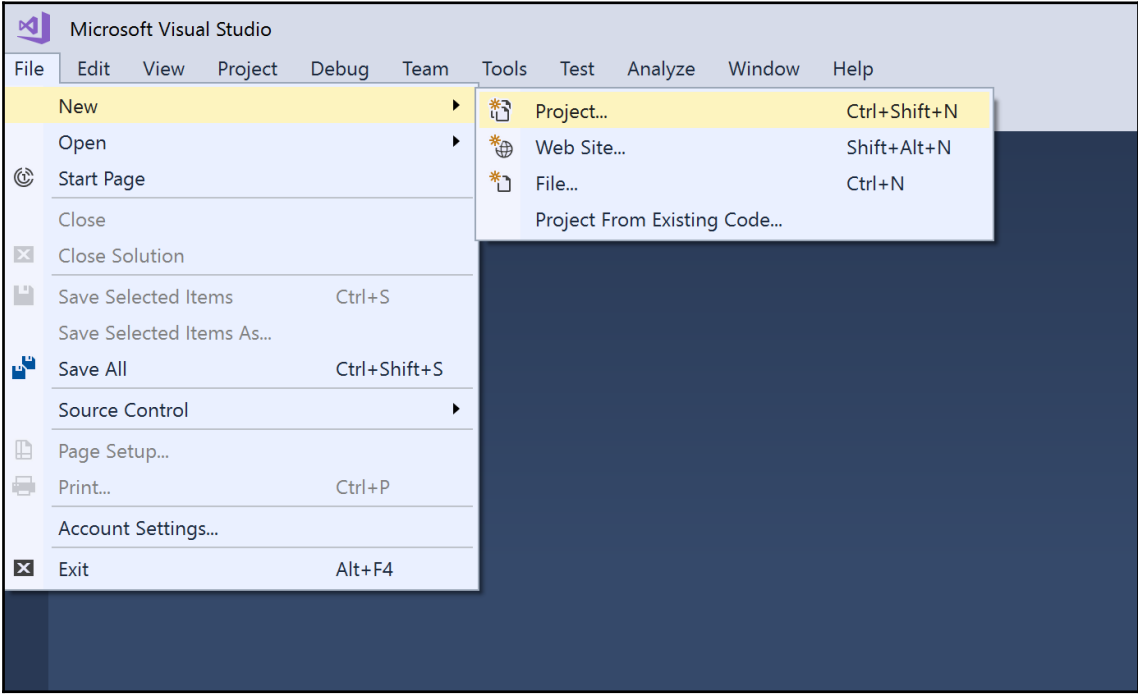


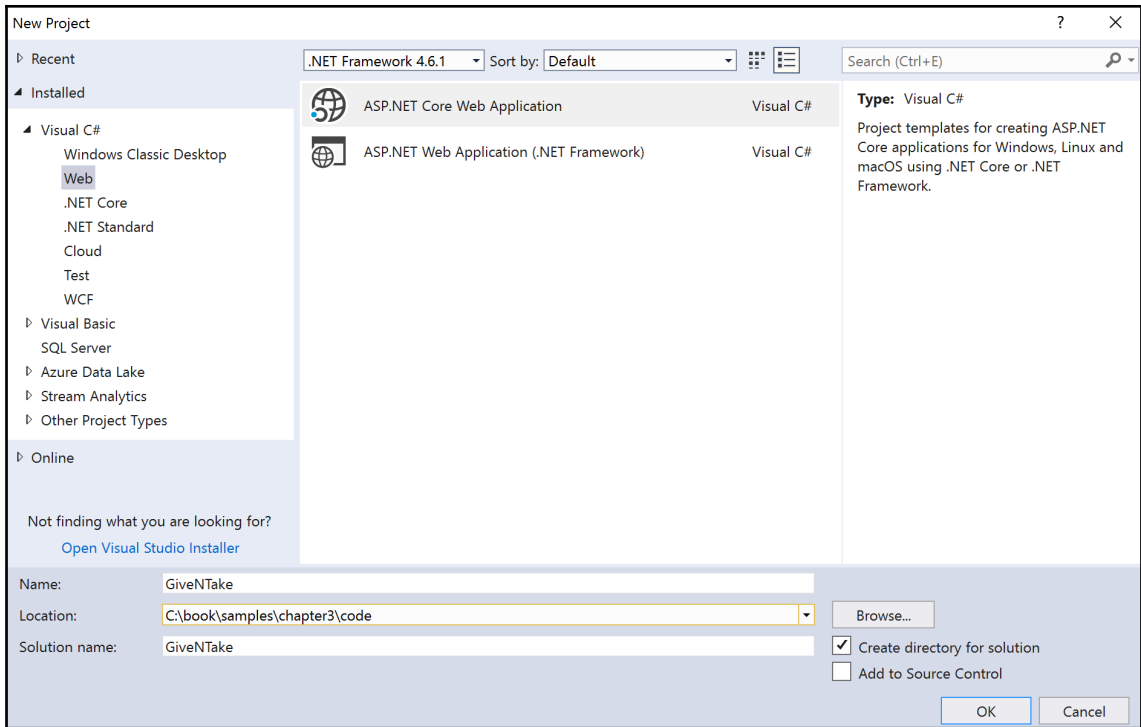


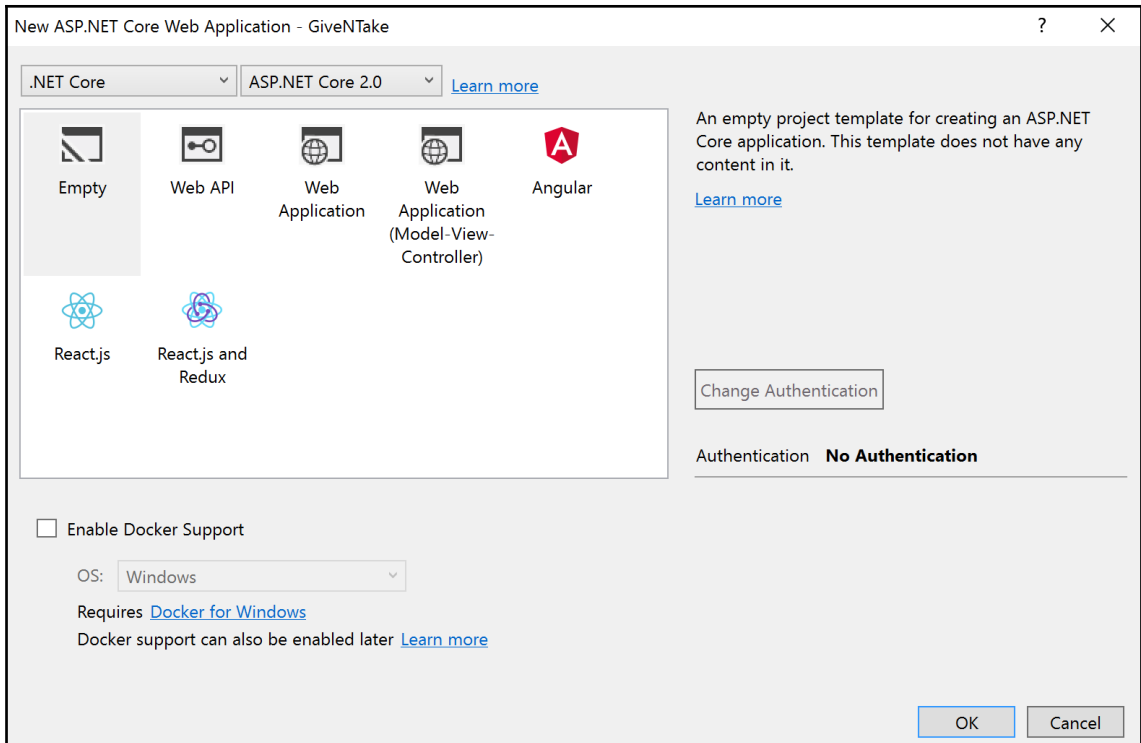


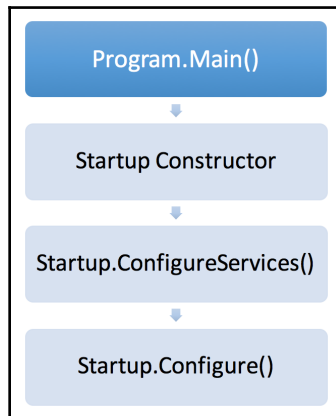
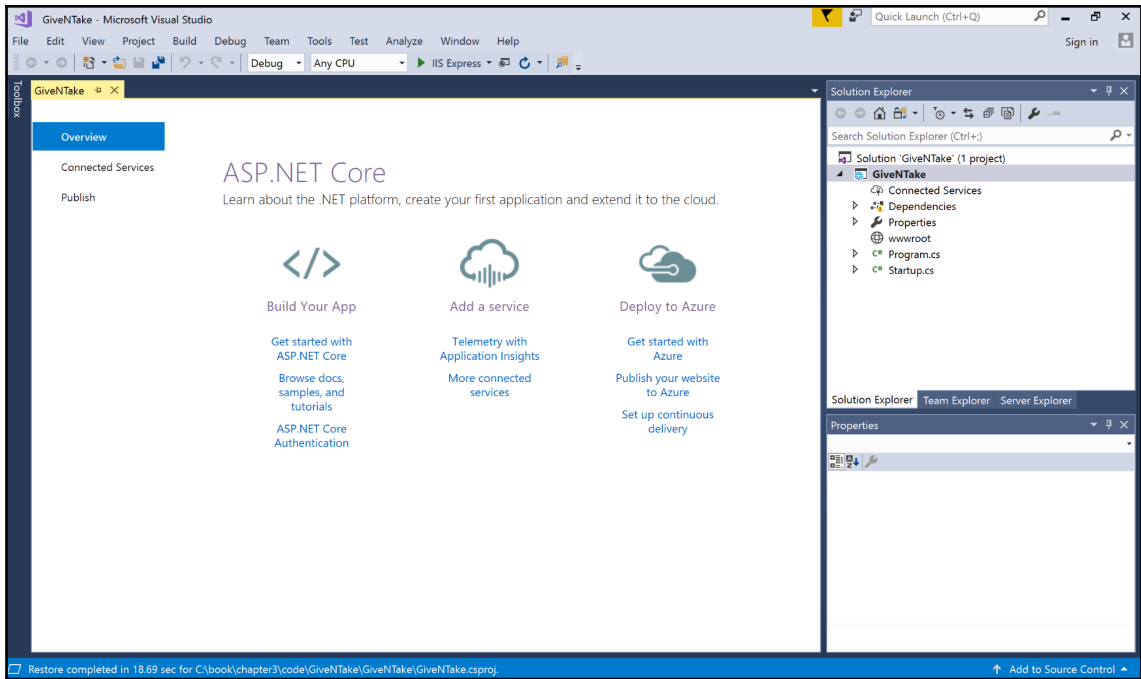
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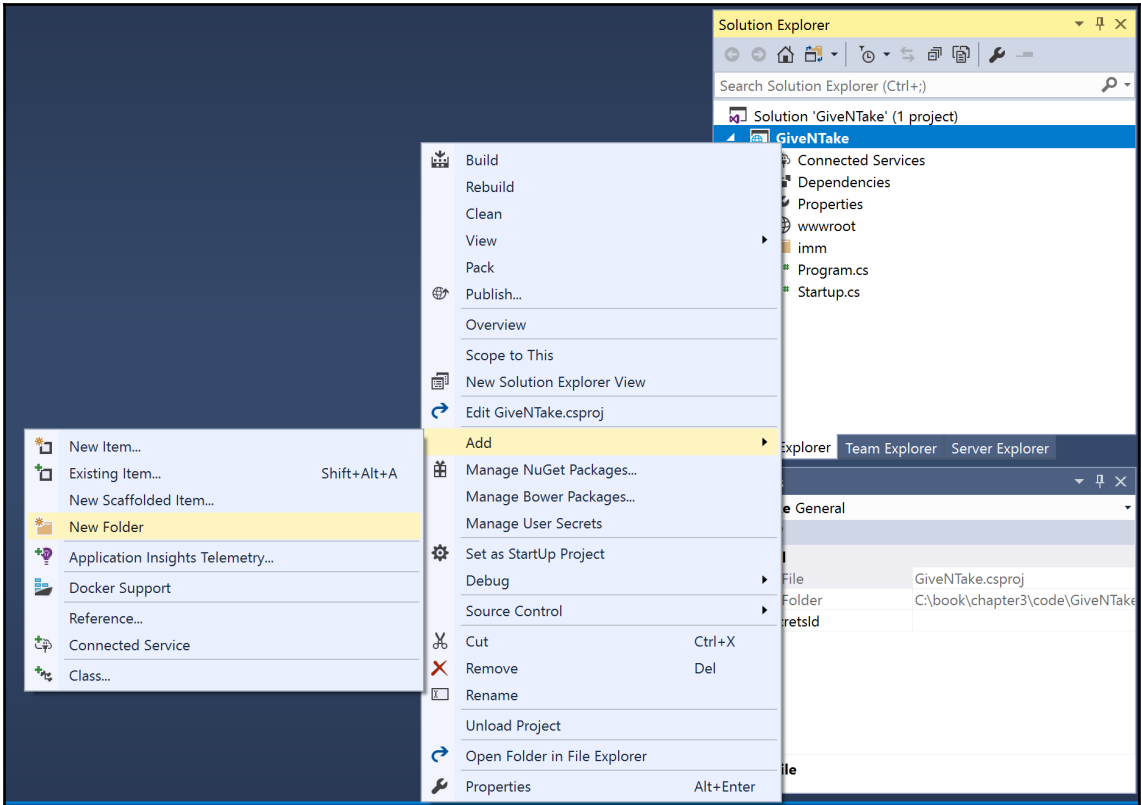
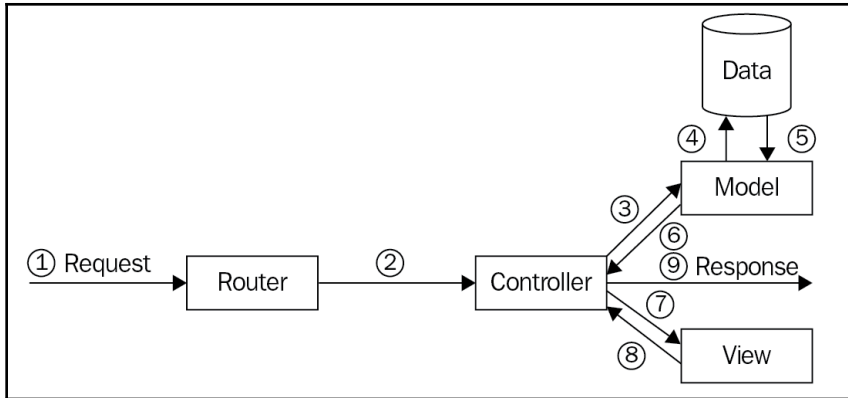
# Chapter 3: Creating a Web Application with ASP.NET Core

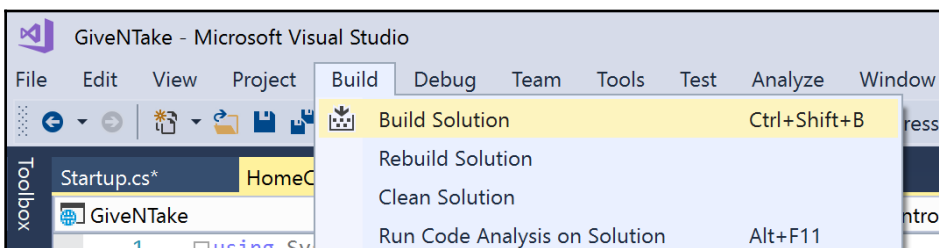
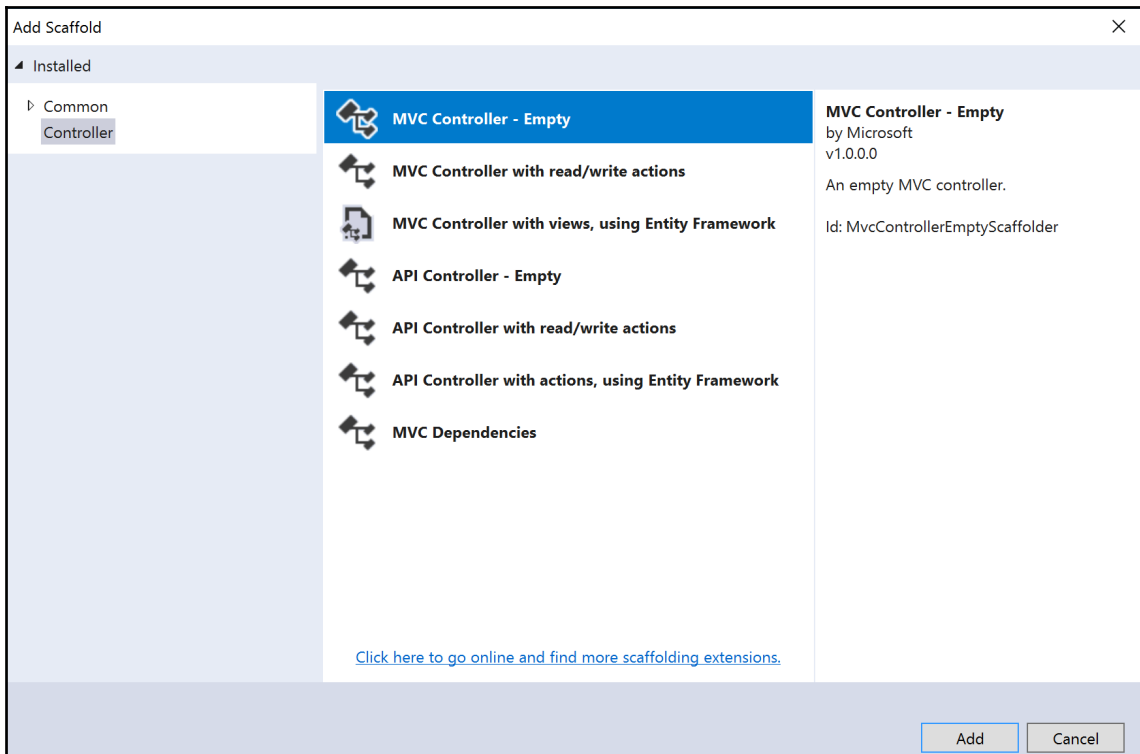
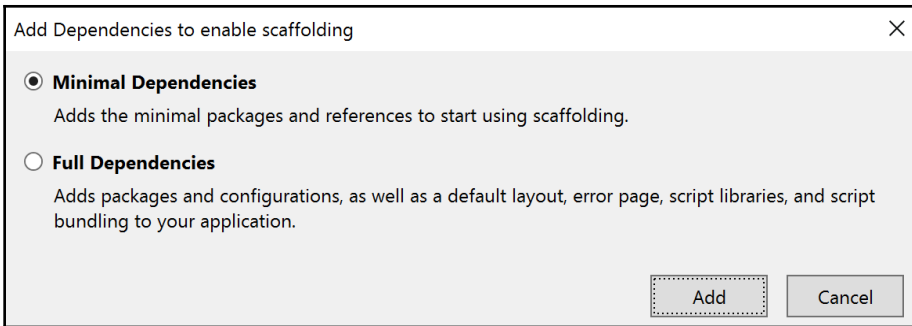


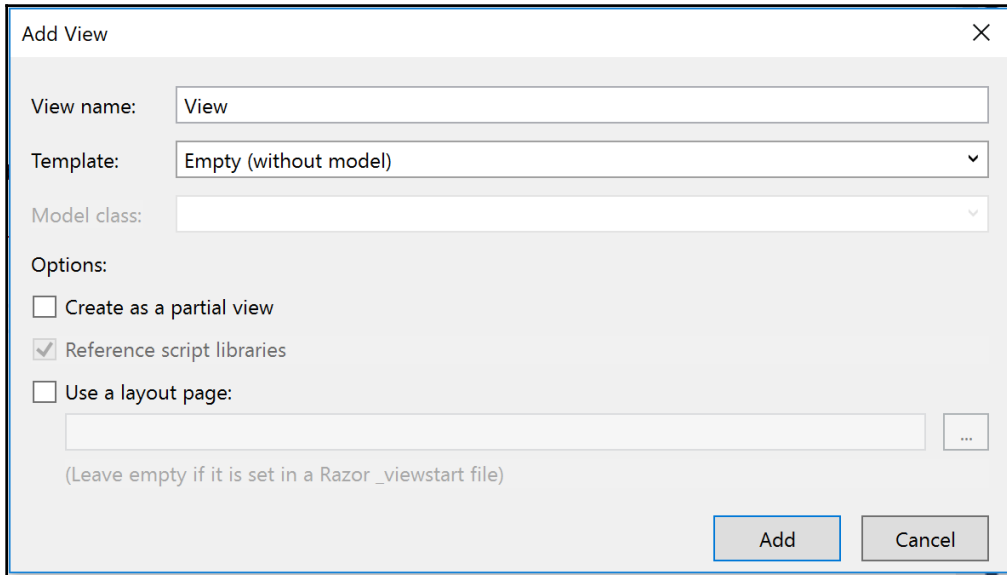
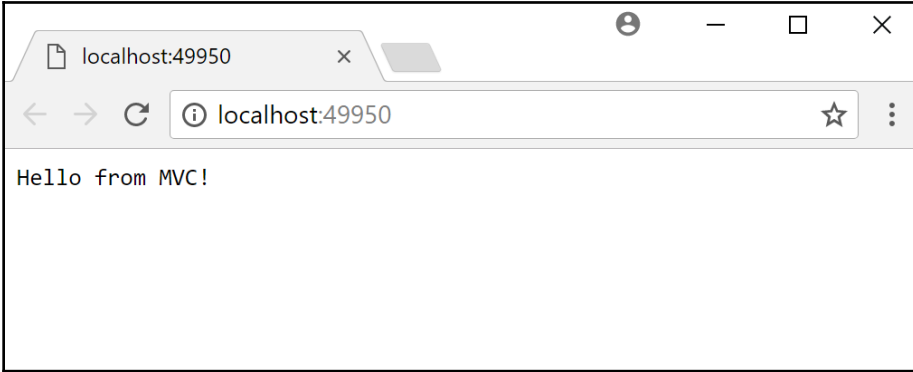
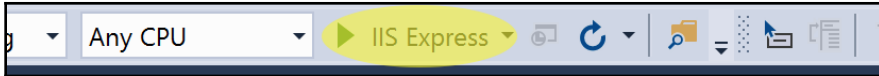










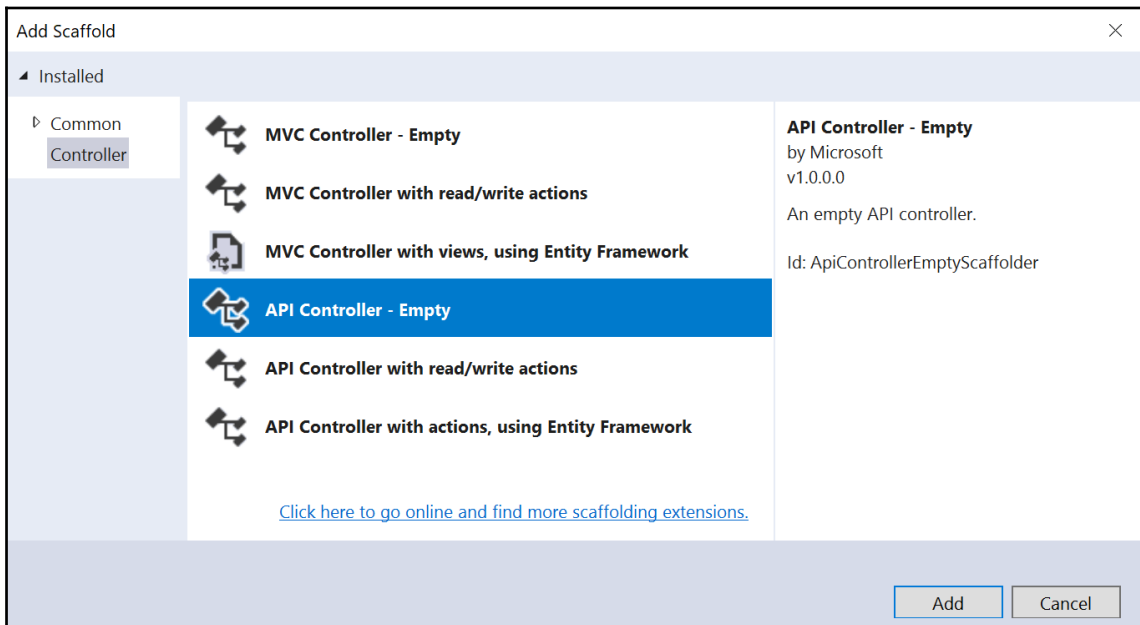
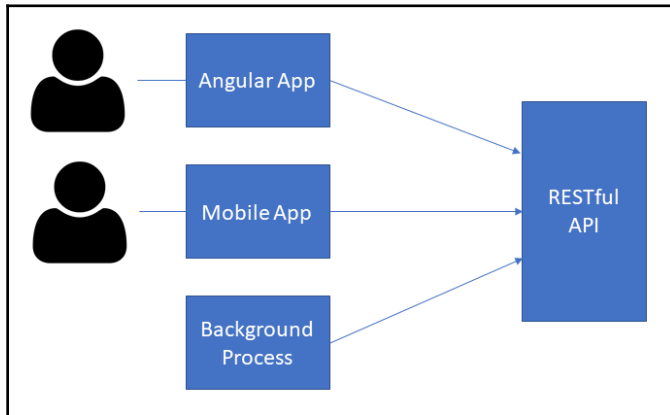


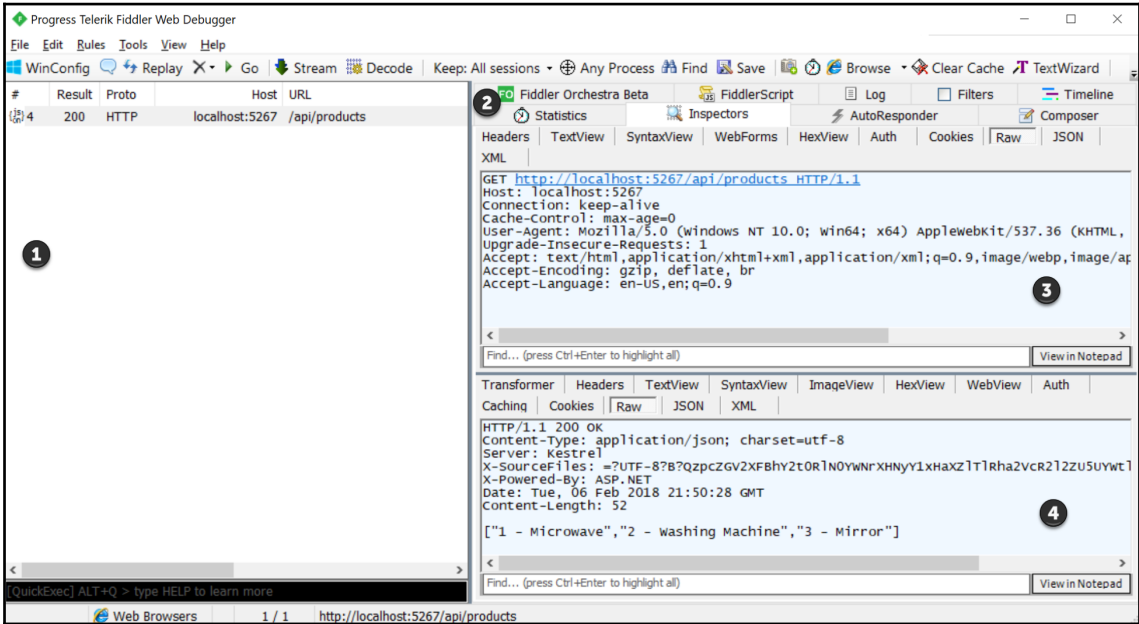
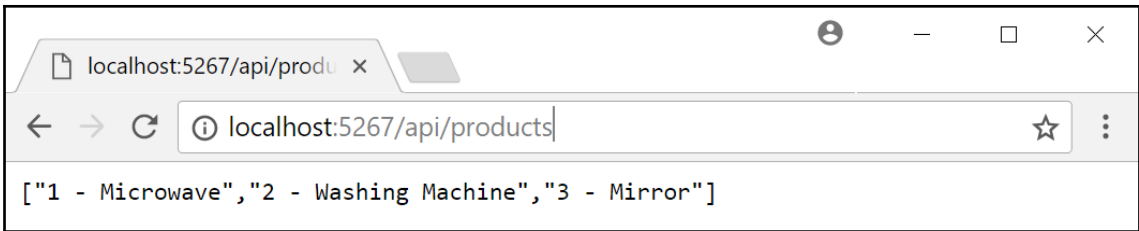


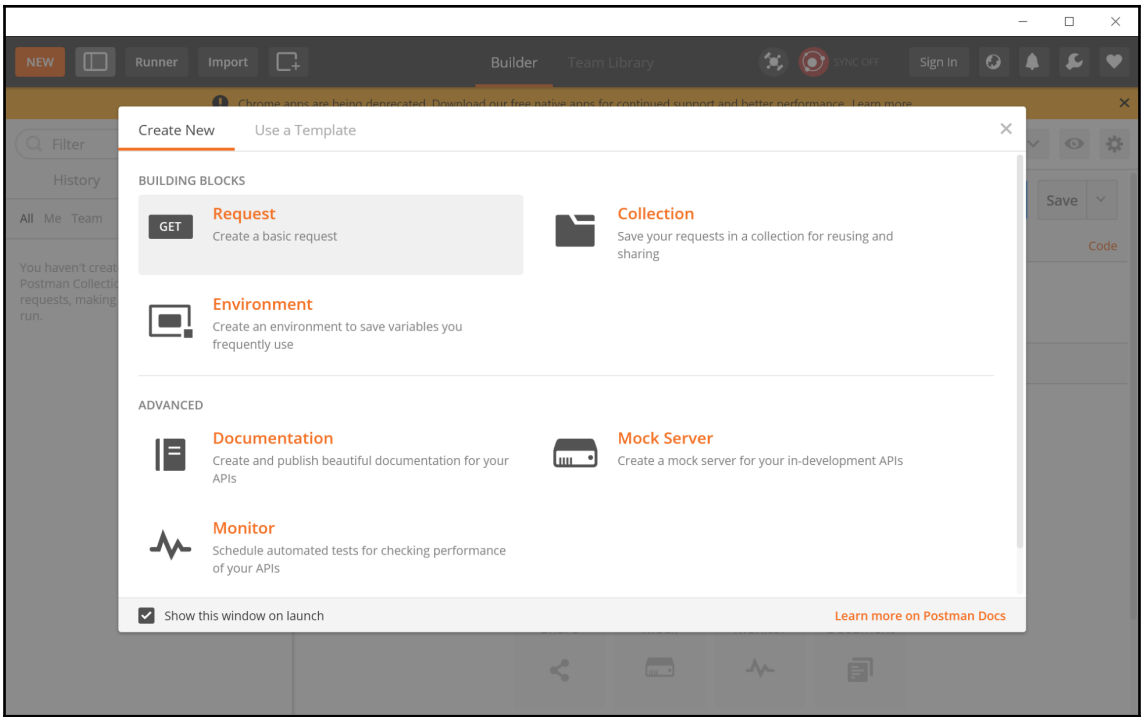


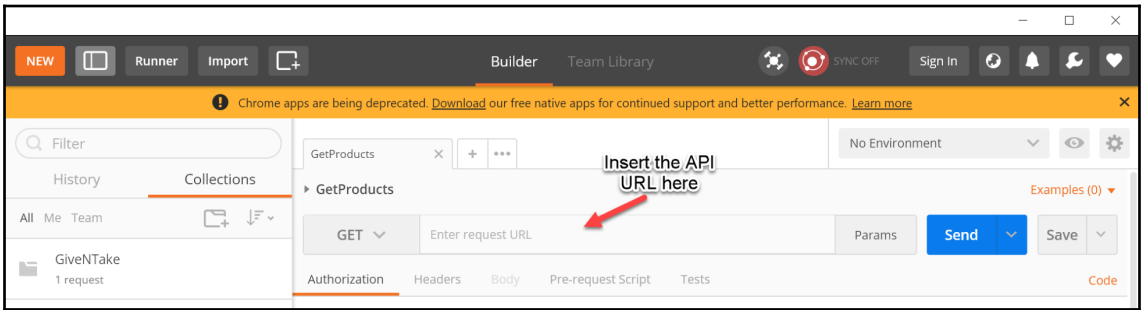
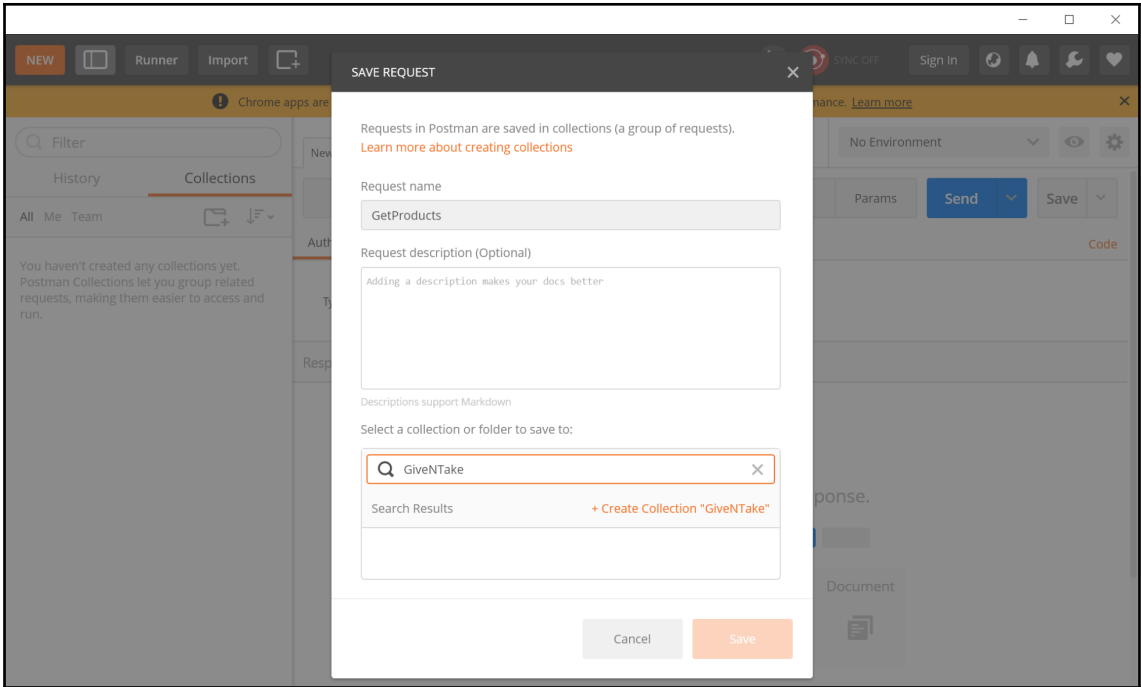
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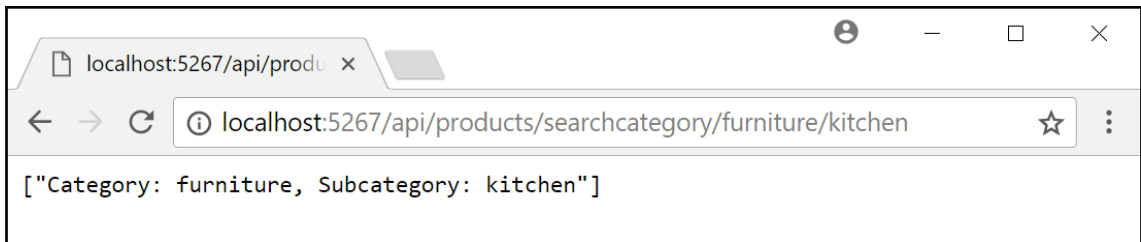
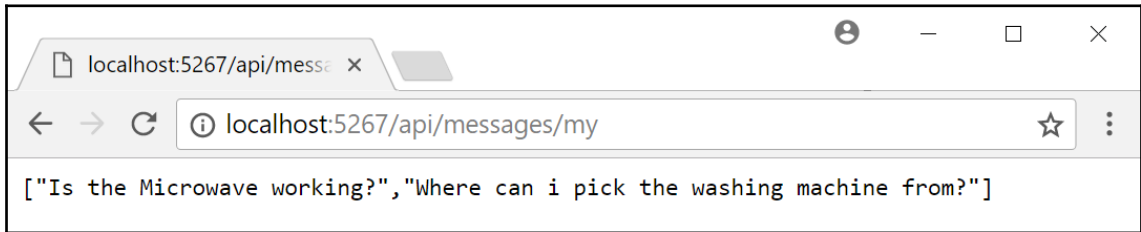
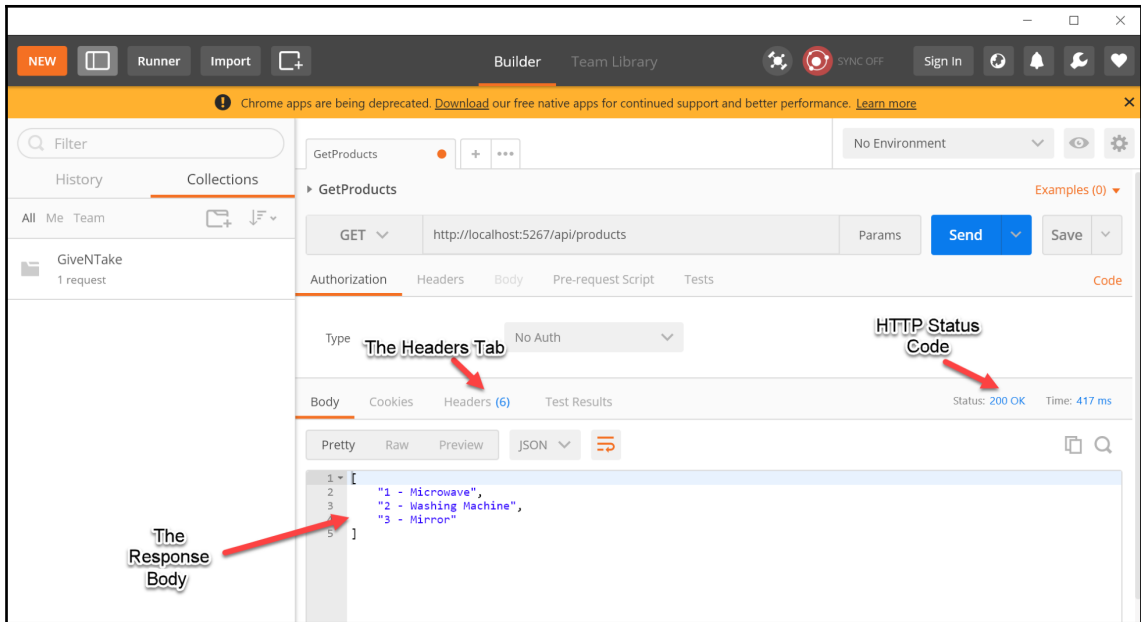
# Chapter 4: Building REST APIs with ASP.NET Core Web API

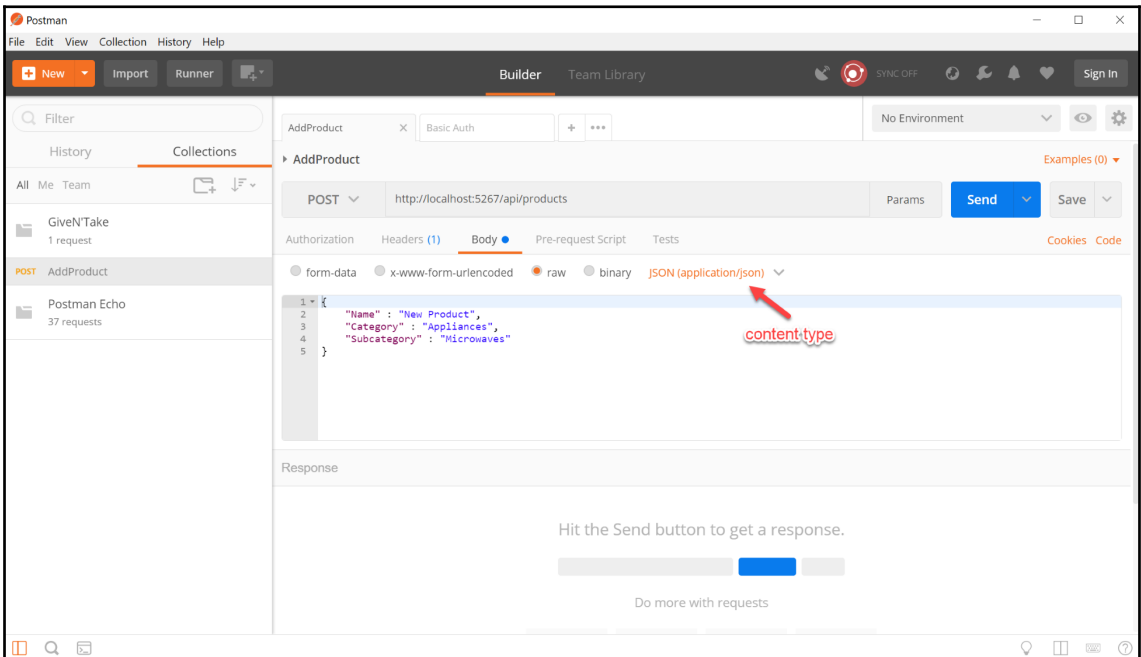
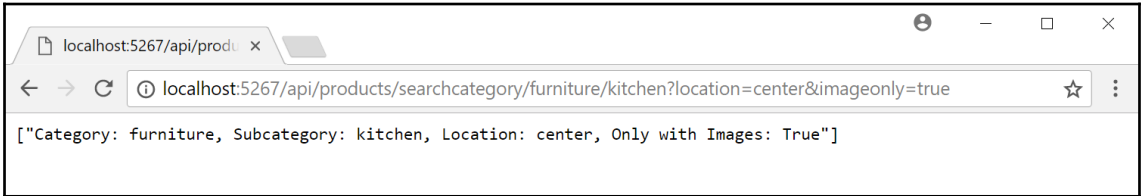
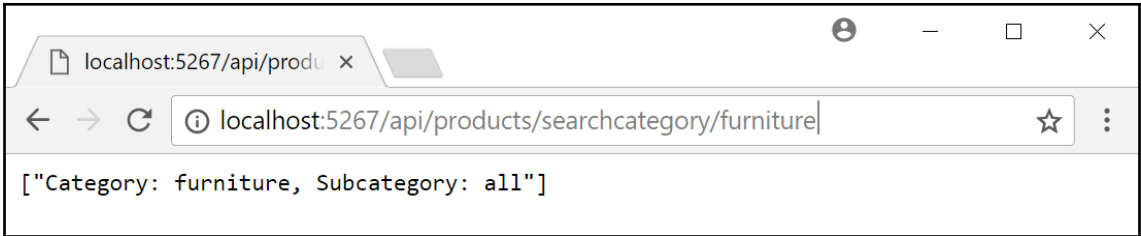


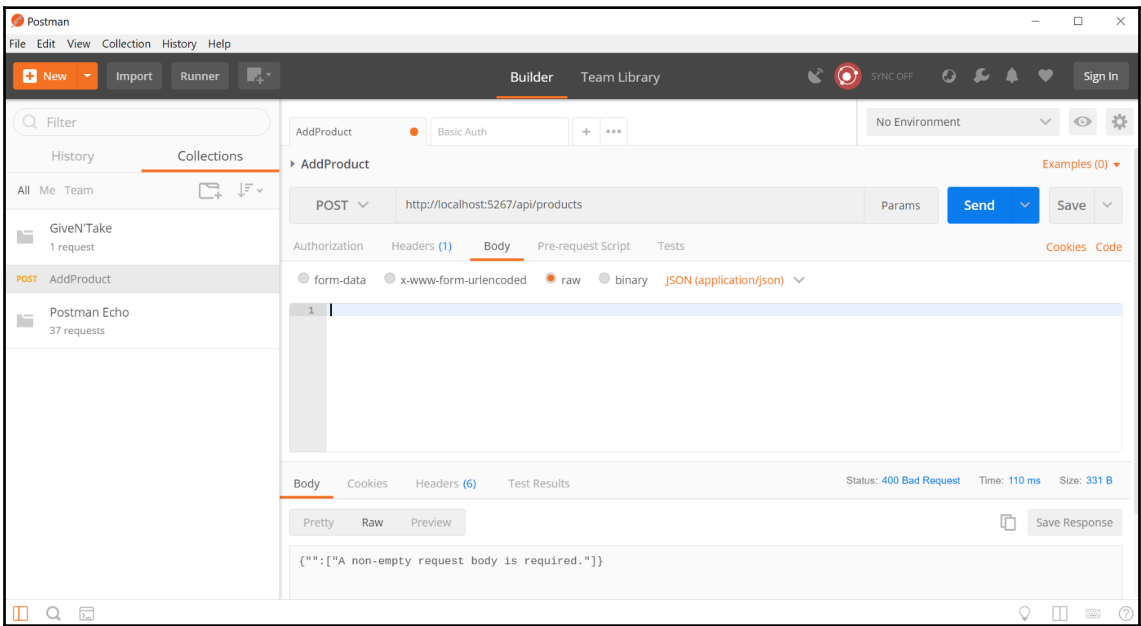
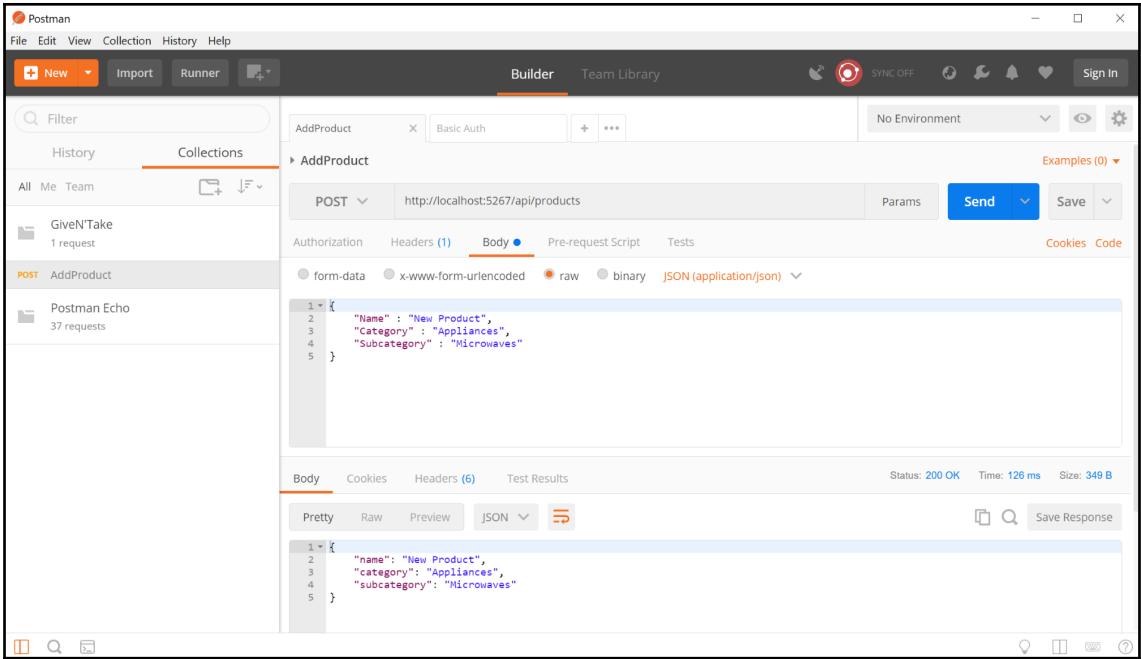




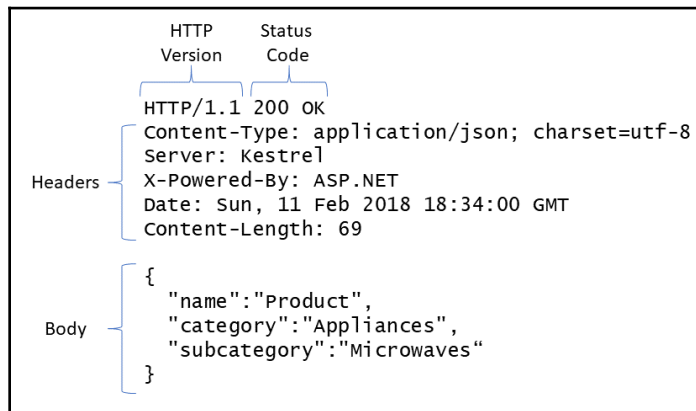
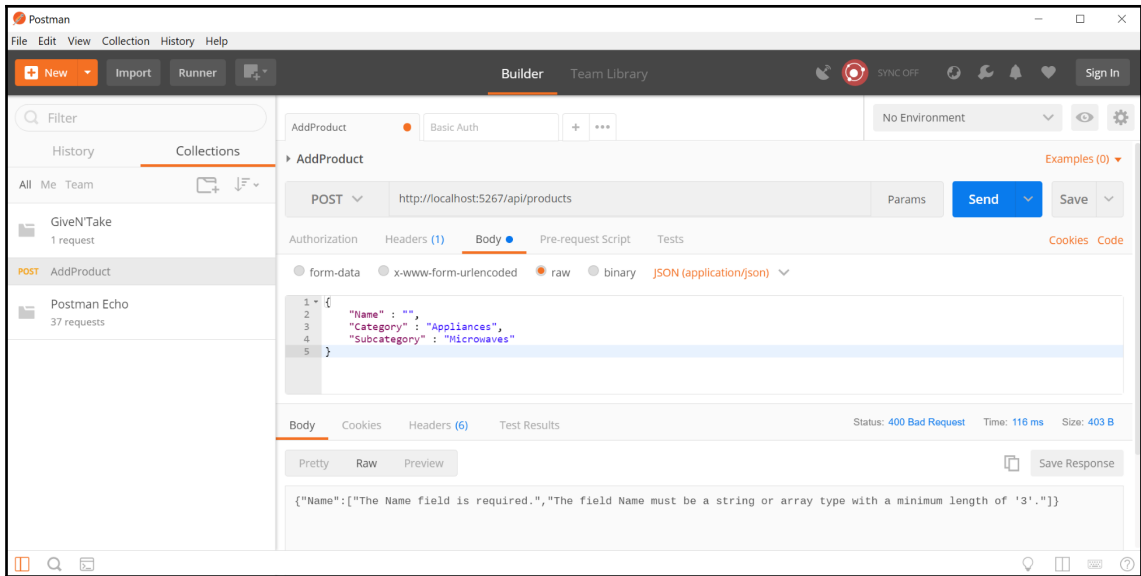




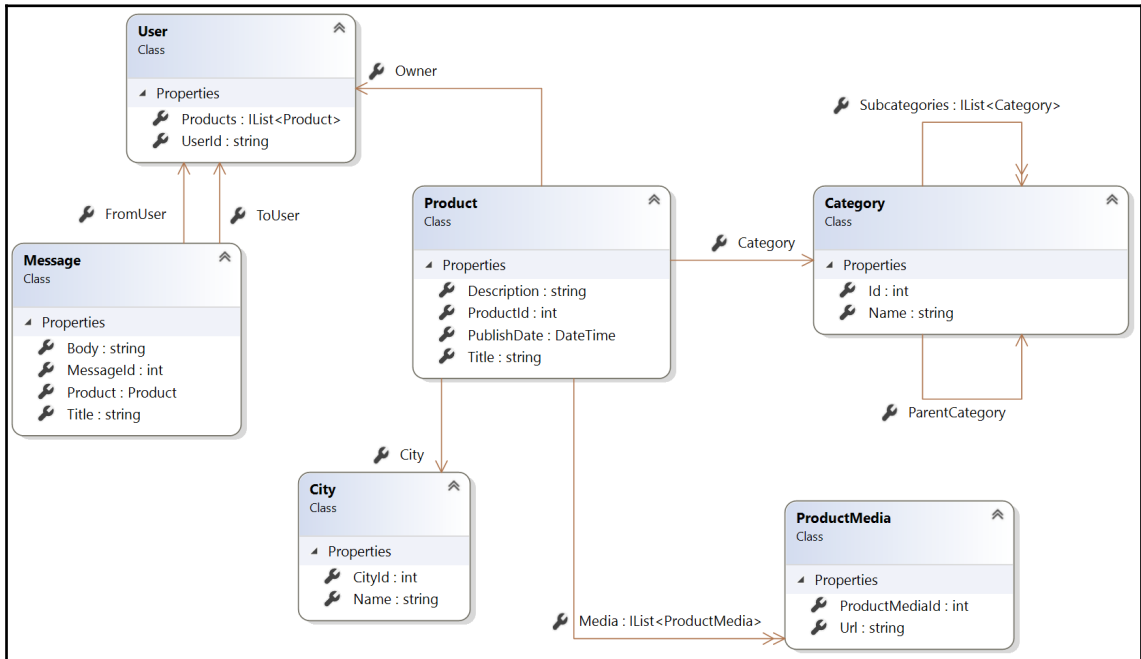


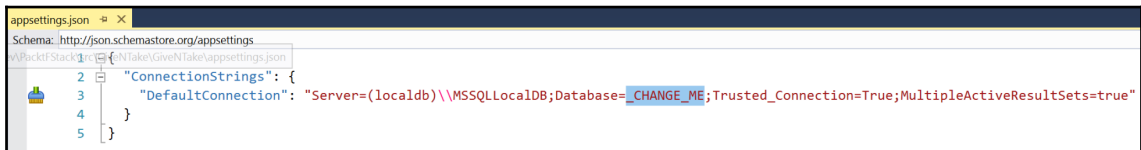
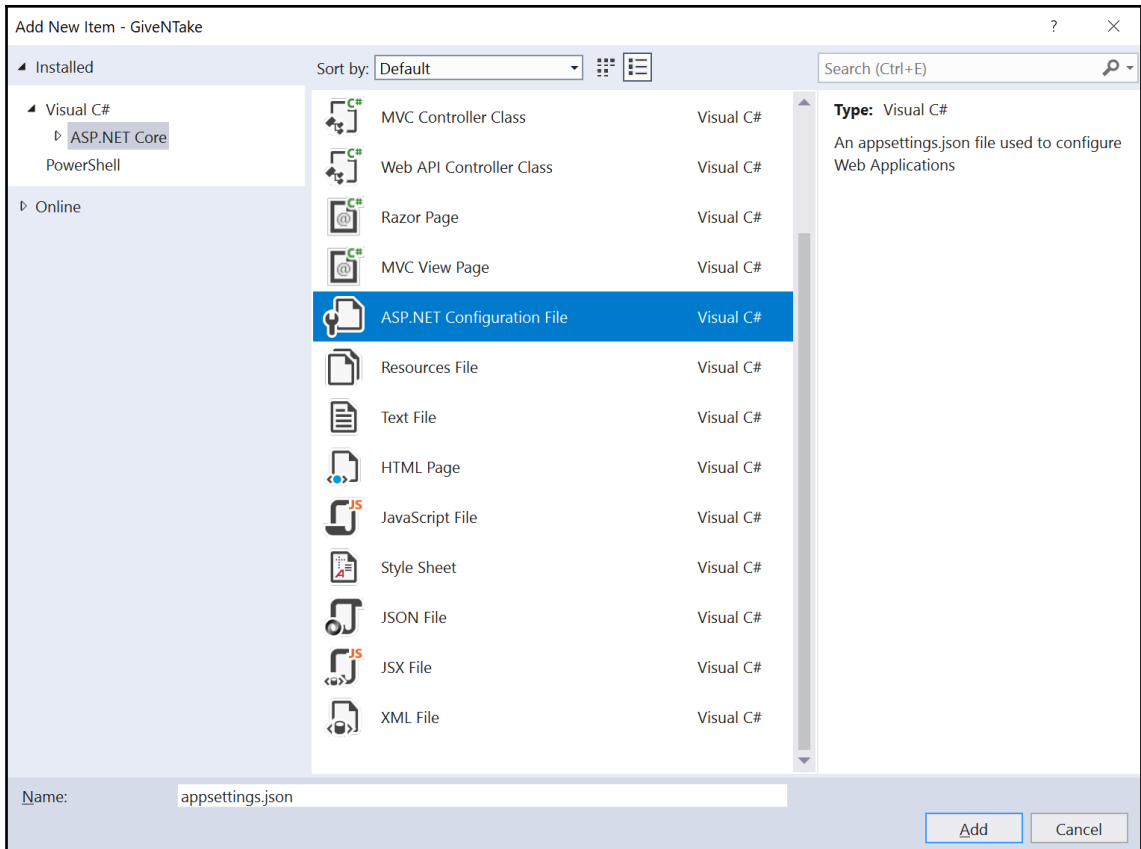


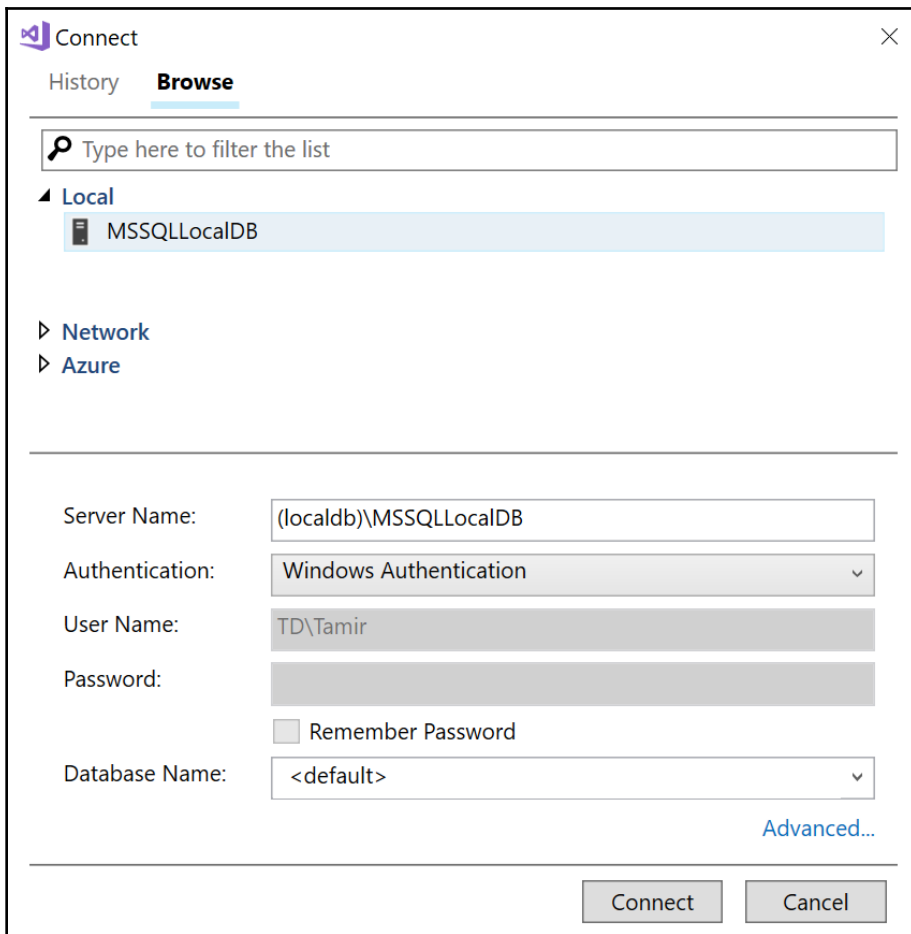
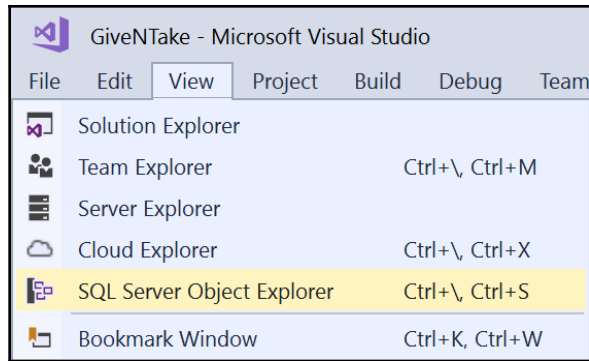


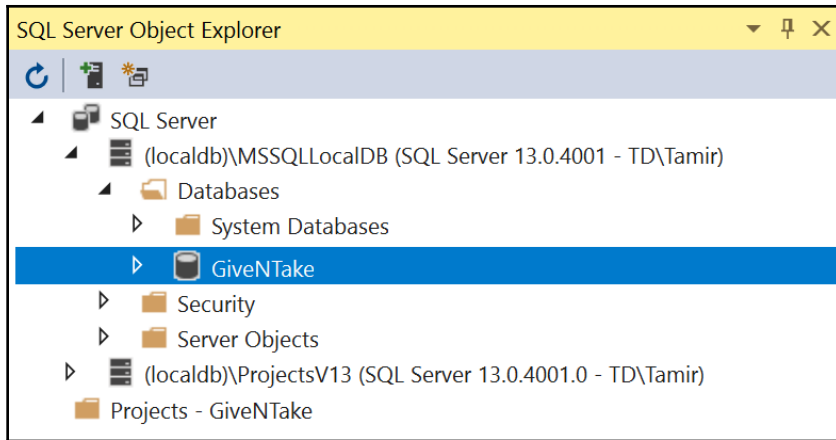


# Chapter 5: Persisting Data with Entity Framework



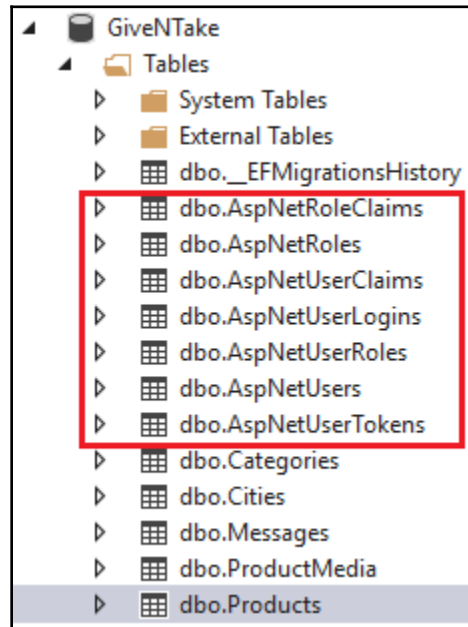






---

## Chapter 6: Securing the Backend Server



JSON Web Tokens - jwt.io

Secure | https://jwt.io

**JWT** Debugger Libraries Introduction Ask Get a T-shirt! Crafted by Auth0

## Debugger

ALGORITHM

### Encoded PASTE A TOKEN HERE

```

eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.
eyJzdWIiOiJ1c2VyQGdpdmVudGFrZS5jb20iLCJq
dGkiOiI5YWQ1MDI5OS0yMDd1LTQzMDktOTBiOS1j
ODBjMzEyM2NiOWMiLCJodHRwOi8vc2NoZW1hcy54
bWxzbnZmLm9yZy93cy8yMDA1LzA1L2lkZW50aXR5
L2NsYW1tcy9uYW1laWR1bnRpZm11ciI6InVzZXJA
Z212ZW50YWt1LmNvbSI6Imh0dHA6Ly9zY2h1bWZz
LnhtbHNvYXAub3JnL3dzLzIwMDUvMDUvaWR1bnRp
dHkvY2xhaW1zL25hbWUuIj01c2VyQGdpdmVudGFr
ZS5jb20iLCJ1eWYiOiJ1c2VyQW11c2VyQW11c2Vy
MTUyMTYzMTg5M2VhbnR5Ijo1c2VyQW11c2VyQW11
Ijo1YXVkaWVuY2UifQ.
bHj2CGRqzv0dE0x8iYC2E_pTVnY-
252HtK0gIAxIg_s

```

### Decoded EDIT THE PAYLOAD AND SECRET

HEADER: ALGORITHM & TOKEN TYPE

```

{
  "alg": "HS256",
  "typ": "JWT"
}

```

PAYLOAD: DATA

```

{
  "sub": "user@giventake.com",
  "jti": "9ad58299-207e-4309-90b9-c80c3123cb9c",

  "http://schemas.xmlsoap.org/ws/2005/05/identity/claims/nam
eidentifier": "user@giventake.com",

  "http://schemas.xmlsoap.org/ws/2005/05/identity/claims/nam
e": "user@giventake.com",
  "nbf": 1521027091,
  "exp": 1521631891,
  "iss": "Issuer",
  "aud": "audience"
}

```

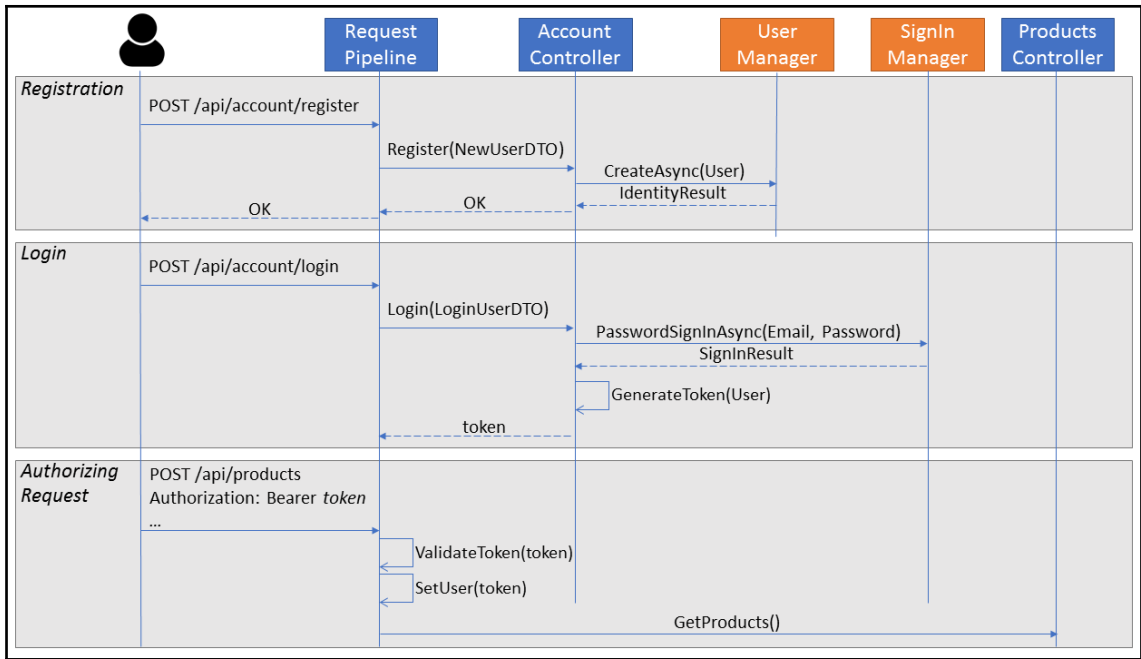
VERIFY SIGNATURE

```

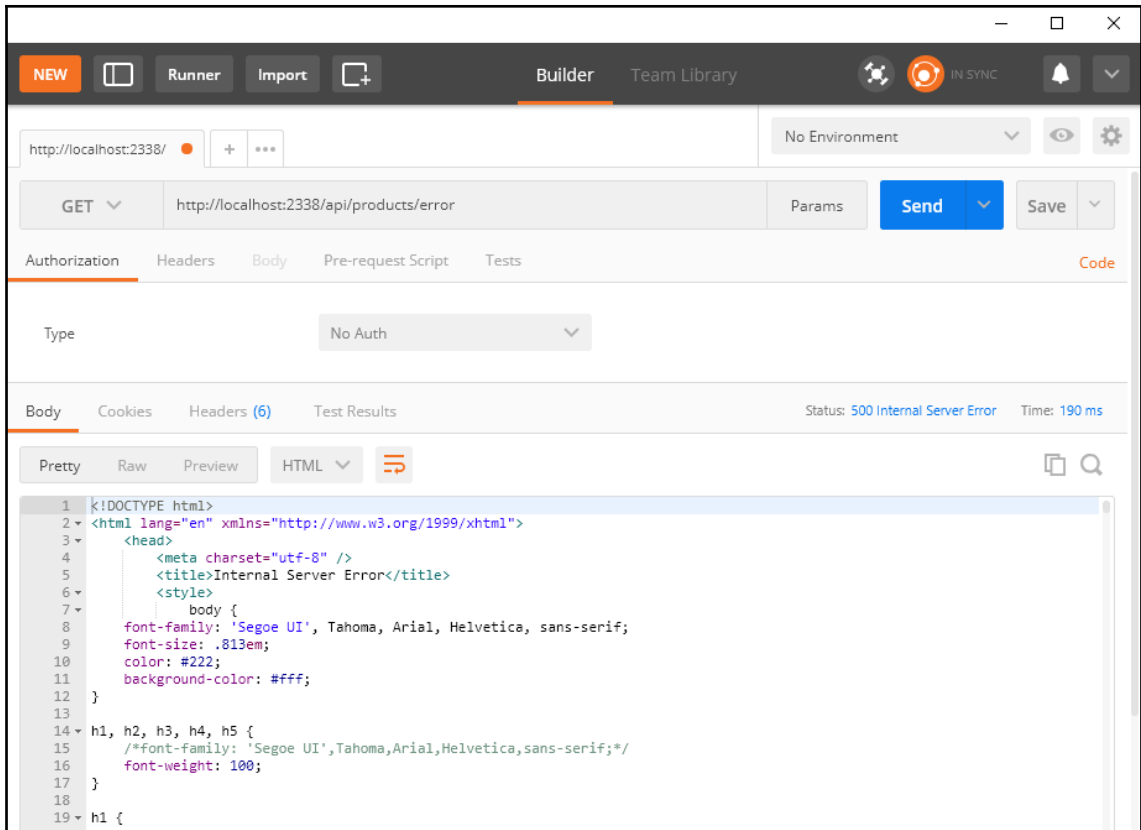
HMACHSHA256(
  base64UriEncode(header) + "." +
  base64UriEncode(payload),
  secret
) ✓secret base64 encoded

```

Signature Verified









GET ▼ http://localhost:5267/api/account/email Params Send Save ▼

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

Key	Value	Description	...	Bulk Edit	Presets
<input checked="" type="checkbox"/> Authorization	Bearer eyjhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJz...				
New key	Value	Description			

Postman

File Edit View Help

+ New Import Runner My Workspace SYNC OFF Sign In

Filter

History Collections

GiveN'Take 3 requests

Postman Echo 37 requests

GET ▼ http://localhost:5267/api/account/email Params Send Save ▼

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

Key	Value	Description	...	Bulk Edit	Presets
<input checked="" type="checkbox"/> Authorization	Bearer eyjhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJz...				
New key	Value	Description			

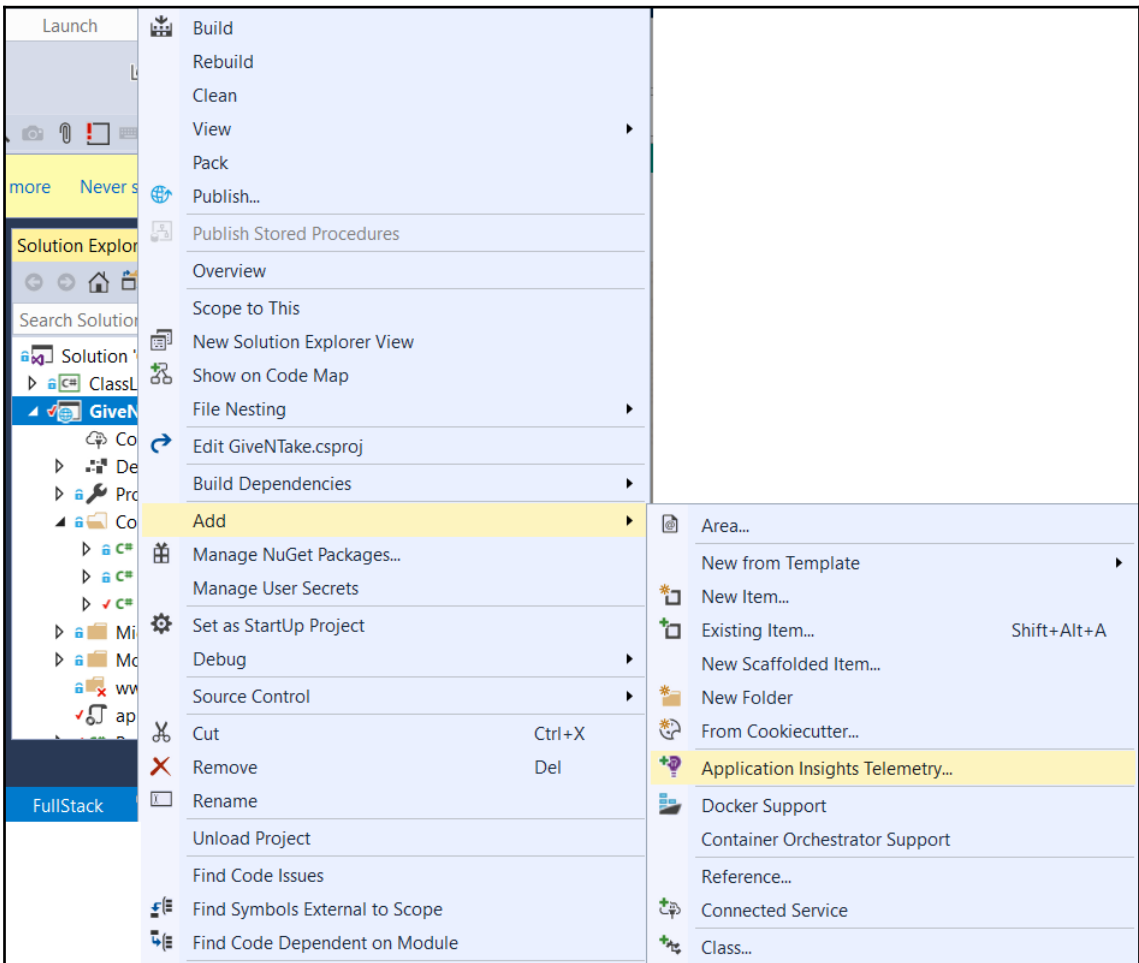
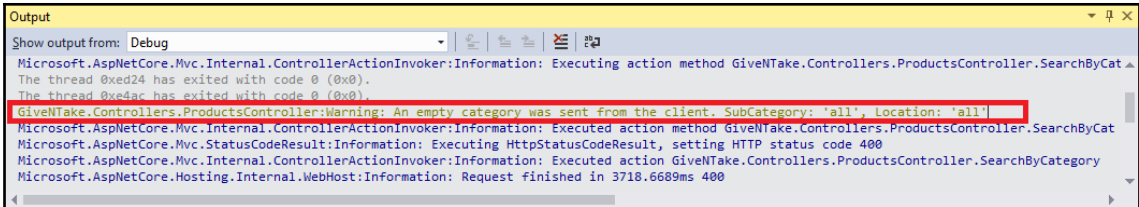
Body Cookies (1) Headers (6) Test Results Status: 200 OK Time: 3890 ms Size: 301 B

Pretty Raw Preview JSON ▼ ≡

```
1 ["user@giventake.com"]
```




# Chapter 7: Troubleshooting and Debugging

(this ILogger logger, EventId eventId, Exception exception, string message, params object[] args):void



Application Insights Configuration

### Gain insights through telemetry, analytics and smart detection

-  **Detect**  
and diagnose exceptions and application performance issues
-  **Monitor**  
websites on Azure, hosted containers, on-premises and with other cloud providers
-  **Integrate**  
with your DevOps pipeline using Visual Studio, VSTS, GitHub, and web hooks





[Get Started](#)

Application Insights Configuration

Visit our [pricing page](#) for details.


[Register](#)

Getting started will...

-  Add the AI SDK to your project
-  Send data to Azure
-  Automatically track exceptions
-  Automatically send publish annotations

[Or just add the SDK to try local only mode](#)

[Understand Application Insights](#) | [Application Insights features](#) | [Privacy Statement](#)

 Application Insights (33)

Application Insights Search

Time range: Last hour

All 30
  Availability 0
  Custom Event 0
  Dependency 0
  Exception 0
  Metric 0
  Page View 0
  Request 1
  Trace 29

Results between 03-Jul-18 04:03:08 PM and 03-Jul-18 05:03:08 PM.

Refine by

- RouteData
- RouteTemplate
- Scheme
- SDK version
- Severity level
  - Information
  - Verbose
  - Warning
- StatusCode
  - 400
- SubCategory
- Successful request
- ValidationState

Trace Details | Track Operation

Properties

Custom (6)

(OriginalFormat): An empty category was sent from the client.

SubCategory: 'SubCategory'; Location: 'Location'

AspNetCoreEnvironment: Development

CategoryName: GiveTake.Controllers.ProductsController

DeveloperMode: true

Location: all

SubCategory: all

7/3/2018 5:01:59 PM - Trace

Executed action method

GiveTake.Controllers.ProductsController.SearchByCategory (GiveTake), returned result Microsoft.AspNetCore.Mvc.BadRequestResult in 17.649ms. Operation name: GET Products/SearchByCategory [category/subcategory] Operation ID: 2fce474f-4e66b86f1f3be1af

7/3/2018 5:01:59 PM - Trace

An empty category was sent from the client. SubCategory: 'all'. Location: 'all'

Operation name: GET Products/SearchByCategory [category/subcategory] Operation ID: 2fce474f-4e66b86f1f3be1af

7/3/2018 5:01:59 PM - Trace

Executing action method

GiveTake.Controllers.ProductsController.SearchByCategory (GiveTake) with arguments (, all, false) - Validation state: Valid Operation name: GET Products/SearchByCategory [category/subcategory] Operation ID: 2fce474f-4e66b86f1f3be1af

7/3/2018 5:01:59 PM - Trace

Done attempting to bind parameter 'imageOnly' of type 'System.Boolean'.

Builder

GiveTake

http://{{url}}/api/Prod

GET http://{{url}}/api/Products/searchcategory/ /

Params Send Save

Authorization Headers Body Pre-request Script Tests

Key	Value	Description
New key	Value	Description

Body Cookies Headers (6) Test Results

Status: 400 Bad Request Time: 792 ms

content-length → 0

date → Thu, 05 Jul 2018 11:50:38 GMT

server → Kestrel

x-correlation-id → |49584c6-4eec65e879132e42.

x-powered-by → ASP.NET

x-sourcefiles → =?UTF-8?B?QzpcZGV2XFhY2t0RW5kVG9FbmRmdWxsU3RhY2tcc3JjXEdpdmlVOVGFrZVxHaXZlITRha2VcYXBpXFYyb2R1Y3RzXHNlYXJjaGNhdG9nb3J5XCBc? =

Application Insights Search

49584c6-4eec65e879132e42 Time range: Last hour

All
  Availability
  Custom Event
  Dependency
  Exception
  Metric
  Page View
  Request
  Trace

1 0 0 0 0 0 0 0 1

Severity level: Warning

Results between 05-Jul-18 01:54:41 PM and 05-Jul-18 02:54:41 PM

Trace Details | Track Operation

Refine by

Search Fields

- DeveloperMode
- Event time
- Location
- Message
- Node name
- Operation ID
- Operation name
- Operation parent ID
- Role instance
- SDK version
- Severity level
- Warning
- SubCategory

7/5/2018 2:50:38 PM - Trace

An empty category was sent from the client.  
 SubCategory: 'all', Location: 'all'  
 Operation name: GET Products/  
 SearchByCategory [category/subcategory]  
 Operation ID: 49584c6-4eec65e879132e42

Properties

- Custom (6)
  - (OriginalFormat): An empty category was sent from the client. SubCategory: '{SubCategory}'; Location: '{Location}'
  - AspNetCoreEnvironment: Development
  - CategoryName: GiveNTake.Controllers.ProductsController
  - DeveloperMode: true
  - Location: all
  - SubCategory: all
- Standard (11)
  - Application version: 1.0.0.0
  - Client IP address: 127.0.0.1
  - Event time: 05-Jul-18 11:50:38 AM

Application

Build

Build Events

Package

Debug

Signing

TypeScript Build

Resources

Configuration: N/A Platform: N/A

Profile: IIS Express [New... Delete]

Launch: IIS Express

Application arguments: Arguments to be passed to the application

Working directory: Absolute path to working directory [Browse...]

Launch browser: Absolute or relative URL

Environment variables:

Name	Value
ASPNETCORE_ENVIRONMENT	Development

[Add Remove]

Web Server Settings

App URL: http://localhost:2338/

Internal Server Error

localhost:2338/api/products/error

An unhandled exception occurred while processing the request.

InvalidOperationException: This is an example of unhandled exception  
GiveNTake.Controllers.ProductsController.ThrowError() in ProductsController.cs, line 290

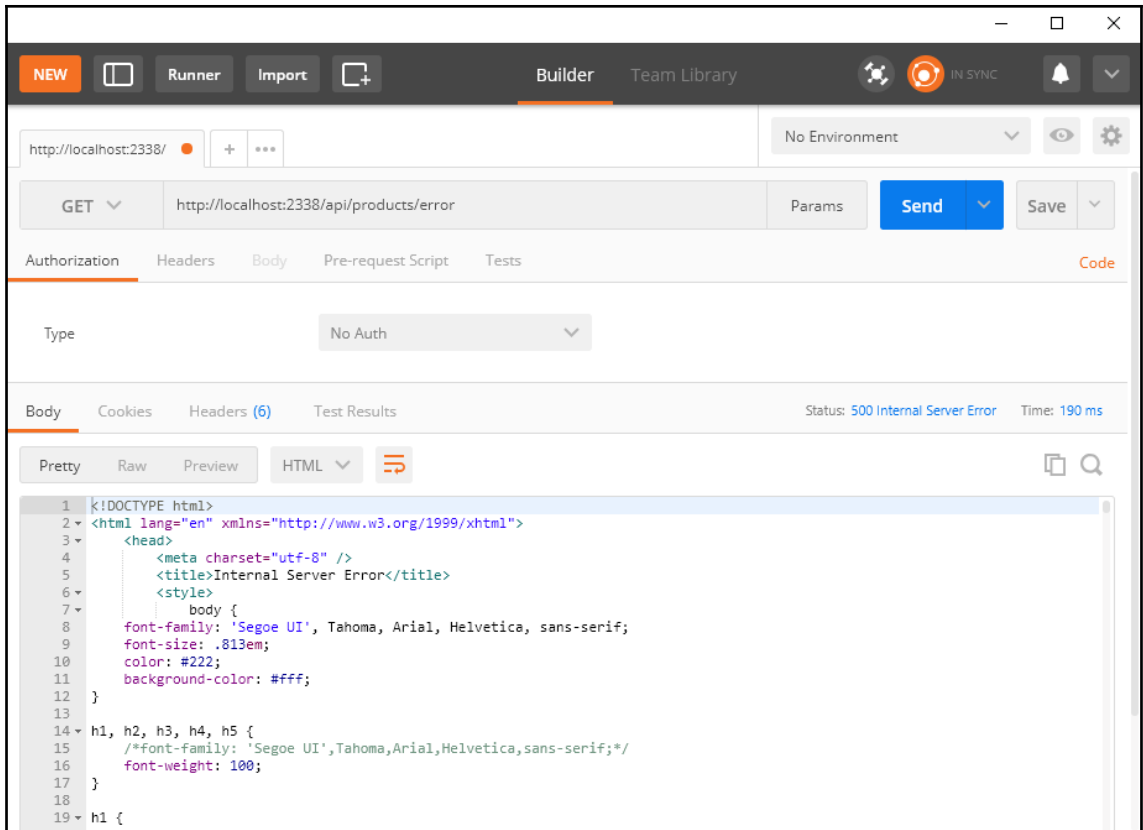
Stack Query Cookies Headers

InvalidOperationException: This is an example of unhandled exception

```
GiveNTake.Controllers.ProductsController.ThrowError() in ProductsController.cs
290.         throw new InvalidOperationException("This is an example of unhandled exception");
lambda_method(Closure, object, object[])
Microsoft.Extensions.Internal.ObjectMethodExecutor.Execute(object target, object[] parameters)
Microsoft.AspNetCore.Mvc.Internal.ActionMethodExecutor+SyncActionResultExecutor.Execute(IActionResultTypeMapper mapper, ObjectMethodExecutor executor, object controller, object[] arguments)
Microsoft.AspNetCore.Mvc.Internal.ControllerActionInvoker.InvokeActionMethodAsync()
Microsoft.AspNetCore.Mvc.Internal.ControllerActionInvoker.InvokeNextActionFilterAsync()
Microsoft.AspNetCore.Mvc.Internal.ControllerActionInvoker.Rethrow(ActionExecutedContext context)
Microsoft.AspNetCore.Mvc.Internal.ControllerActionInvoker.Next(ref State next, ref Scope scope, ref object state, ref bool isCompleted)
Microsoft.AspNetCore.Mvc.Internal.ControllerActionInvoker.InvokeInnerFilterAsync()
Microsoft.AspNetCore.Mvc.Internal.ResourceInvoker.InvokeNextResourceFilter()
Microsoft.AspNetCore.Mvc.Internal.ResourceInvoker.Rethrow(ResourceExecutedContext context)
Microsoft.AspNetCore.Mvc.Internal.ResourceInvoker.Next(ref State next, ref Scope scope, ref object state, ref bool isCompleted)
Microsoft.AspNetCore.Mvc.Internal.ResourceInvoker.InvokeFilterPipelineAsync()
Microsoft.AspNetCore.Mvc.Internal.ResourceInvoker.InvokeAsync()
Microsoft.AspNetCore.Builder.RouterMiddleware.Invoke(HttpContext httpContext)
Microsoft.AspNetCore.Authentication.AuthenticationMiddleware.Invoke(HttpContext context)
Microsoft.AspNetCore.Diagnostics.DeveloperExceptionPageMiddleware.Invoke(HttpContext context)
```

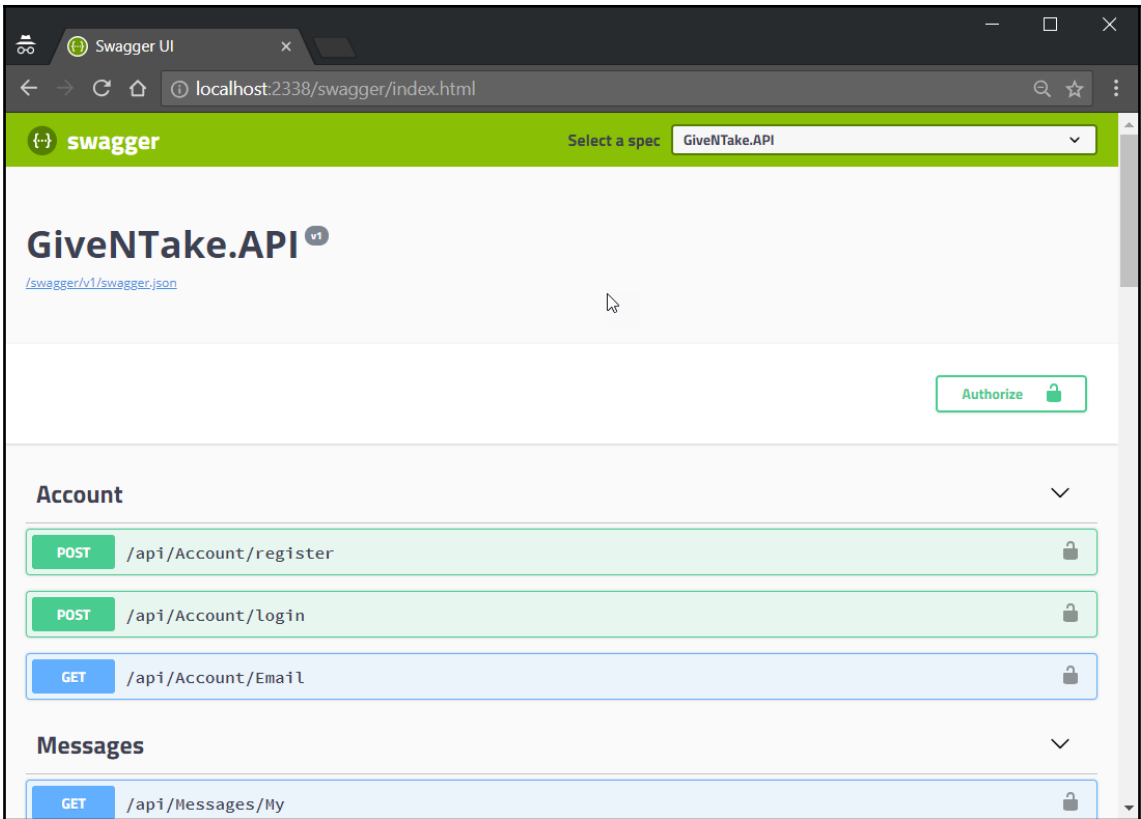
[Show raw exception details](#)







The screenshot shows a web client interface with a top navigation bar containing 'NEW', 'Runner', 'Import', 'Builder', and 'Team Library'. Below the navigation bar, there are several tabs for different API endpoints: 'http://{{url}}/api/Pn', 'http://api/Products', 'http://api/Products', and 'http://api/Account/login'. The selected endpoint is 'http://{{url}}/api/Products/error'. The method is set to 'GET'. The status is '500 Internal Server Error' and the time is '3164 ms'. The response body is displayed in a 'Pretty' view, showing a JSON object with an exception and server error details.

```
1 {
2   "exception": {
3     "ClassName": "System.InvalidOperationException",
4     "Message": "This is an example of unhandled exception",
5     "Data": null,
6     "InnerException": null,
7     "HelpURL": null,
8     "StackTraceString": "   at GiveNTake.Controllers.ProductsController.ThrowError() in C
: \\dev\\PacktEndToEndFullStack\\src\\GiveNTake\\GiveNTake\\Controllers\\ProductsController.cs:line 303\r\n   at
lambda_method(Closure , Object , Object[] )\r\n   at Microsoft.Extensions.Internal.ObjectMethodExecutor.Execute(Object
target, Object[] parameters)\r\n   at Microsoft.AspNetCore.Mvc.Internal.ActionMethodExecutor.SyncActionResultExecutor
.Execute(IActionResultTypeMapper mapper, ObjectMethodExecutor executor, Object controller, Object[] arguments)\r\n   at
Microsoft.AspNetCore.Mvc.Internal.ControllerActionInvoker.InvokeActionMethodAsync()\r\n   at Microsoft.AspNetCore.Mvc
.Internal.ControllerActionInvoker.InvokeNextActionFilterAsync()\r\n   at Microsoft.AspNetCore.Mvc.Internal
.ControllerActionInvoker.Rethrow(ActionExecutedContext context)\r\n   at Microsoft.AspNetCore.Mvc.Internal
.ControllerActionInvoker.Next(State& next, Scope& scope, Object& state, Boolean& isCompleted)\r\n   at Microsoft
.AspNetCore.Mvc.Internal.ControllerActionInvoker.InvokeInnerFilterAsync()\r\n   at Microsoft.AspNetCore.Mvc.Internal
.ResourceInvoker.InvokeNextExceptionHandlerAsync()",
9     "RemoteStackTraceString": null,
10    "RemoteStackIndex": 0,
11    "ExceptionMethod": null,
12    "HRESULT": -2146233079,
13    "Source": "GiveNTake",
14    "WatsonBuckets": null
15  },
16  "errors": {
17    "ServerError": [
18      "An unexpected error occurred."
19    ]
20  }
}
```



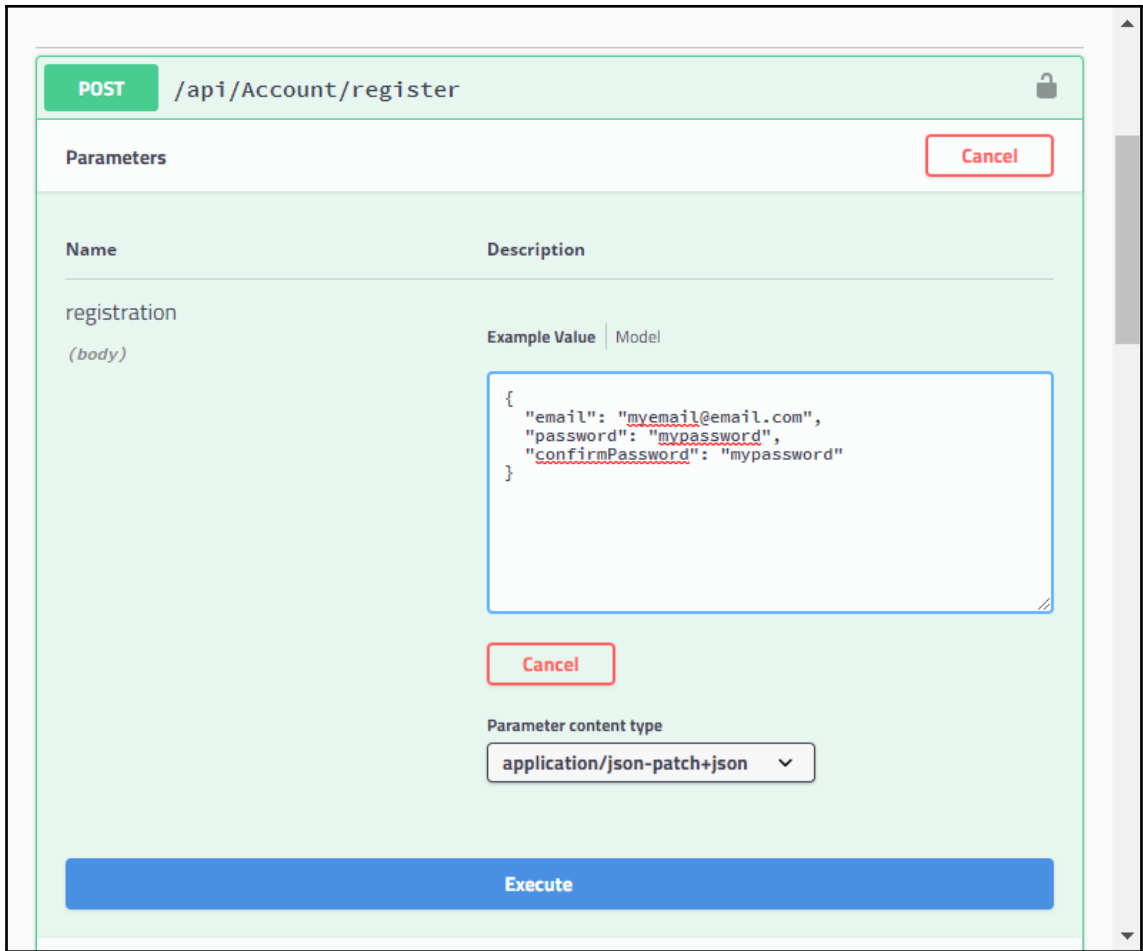
**POST** /api/Account/register 

Parameters Try it out 

Name	Description
registration <i>(body)</i>	<p>Example Value   Model</p> <pre>{   "email": "string",   "password": "string",   "confirmPassword": "string" }</pre> <p>Parameter content type application/json-patch+json</p>

Responses Response content type: application/json

Code	Description
200	Success



Responses Response content type

Curl

```
curl -X POST "http://localhost:2338/api/Account/register" -H "accept: application/json" -H "Content-Type: application/json-patch+json" -d '{"email": "myemail@email.com", "password": "mypassword", "confirmPassword": "mypassword"}'
```

Request URL

```
http://localhost:2338/api/Account/register
```

Server response

Code	Details
400	Error: Bad Request

*Undocumented*

Response body

```
{  "PasswordRequiresDigit": [    "Passwords must have at least one digit ('0'-'9')."  ],  "PasswordRequiresUpper": [    "Passwords must have at least one uppercase ('A'-'Z')."  ],  "PasswordRequiresNonAlphanumeric": [    "Passwords must have at least one non alphanumeric character."  ]}
```

[Download](#)

Response headers

```
content-type: application/json; charset=utf-8
date: Sat, 07 Jul 2018 13:41:58 GMT
server: Kestrel
transfer-encoding: chunked
x-correlation-id: |85bb234e-41c527b86f8ac808.
x-powered-by: ASP.NET
x-sourcefiles: =?UTF-8?B?
QzpcZGV2XFhY2t8Rm5kVG9FbmlRdWxsU3RhY2tcc3JjXEEdpdmV0VGFrZVxHaXZlTLRha2VcYXBpXEFjY291bnRccmVnaXN0ZXI=?=
```

The image shows the Swagger Editor interface. On the left, a code editor displays a Swagger 2.0 API definition for 'GiveNTake.API v1'. The definition includes endpoints for account registration, login, and email retrieval, as well as a messages endpoint. A context menu is open over the code, showing options like 'Import URL', 'Import File', 'Save as YAML', 'Convert and save as JSON', and 'Clear editor'. On the right, the visual API interface is displayed, featuring an 'Authorize' button and a list of endpoints categorized under 'Account' and 'Messages'.

```
1 swagger: '2.0'
2 info:
3   version: v1
4   title: GiveNTake.API
5 paths:
6   /api/Account/register:
7     post:
8       tags:
9         - Account
10      operationId: ApiAccountRegisterPost
11      consumes:
12        - application/json
13        - application/x-www-form-urlencoded
14        - text/json
15      produces:
16        - application/*+json
17      parameters:
18        - name: registration
19          in: body
20          required: false
21          schema:
22            $ref: '#/definitions/RegisterUserDTO'
23      responses:
24        '200':
25          description: Success
26   /api/Account/login:
27     post:
28       tags:
29         - Account
30      operationId: ApiAccountLoginPost
31      consumes:
32        - application/json-patch+json
33        - application/json
34        - text/json
35        - application/*+json
36      produces:
37        - application/json
```

## GiveNTake.API <sup>v1</sup>

Authorize

### Account

- POST /api/Account/register
- POST /api/Account/login
- GET /api/Account/Email

### Messages

- GET /api/Messages/My

Swagger Editor File Edit Generate Server Generate Client

```
1 swagger: '2.0'
2 info:
3   version: v1
4   title: GiveTake.API
5 paths:
6   /api/Account/register:
7     post:
8       tags:
9         - Account
10      operationId: ApiAccountRegisterPost
11      consumes:
12        - application/json-patch+json
13        - application/json
14        - text/json
15        - application/*+json
16      produces: []
17      parameters:
18        - name: registration
19          in: body
20          required: false
21          schema:
22            $ref: '#/definitions/RegisterUserDTO'
23      responses:
24        '200':
25          description: Success
26   /api/Account/login:
27     post:
28       tags:
29         - Account
30      operationId: ApiAccountLoginPost
31      consumes:
32        - application/json-patch+json
33        - application/json
34        - text/json
35        - application/*+json
36      produces:
```

ada	elixir	jmeter	scalaz
akka-scala	elm	kotlin	swagger
android	erlang-client	lua	swagger
apex	flash	objc	swift
bash	go	perl	swift3
clojure	groovy	php	swift4
cpprest	haskell-http-client	powershell	tizen
csharp	html	python	typescri
csharp-dotnet2	html2	qt5cpp	typescri
cwiki	java	r	typescri
dart	javascript	ruby	typescri
dynamic-html	javascript-closure-angular	rust	typescri
eiffel	jaxrs-cxf-client	scala	typescri

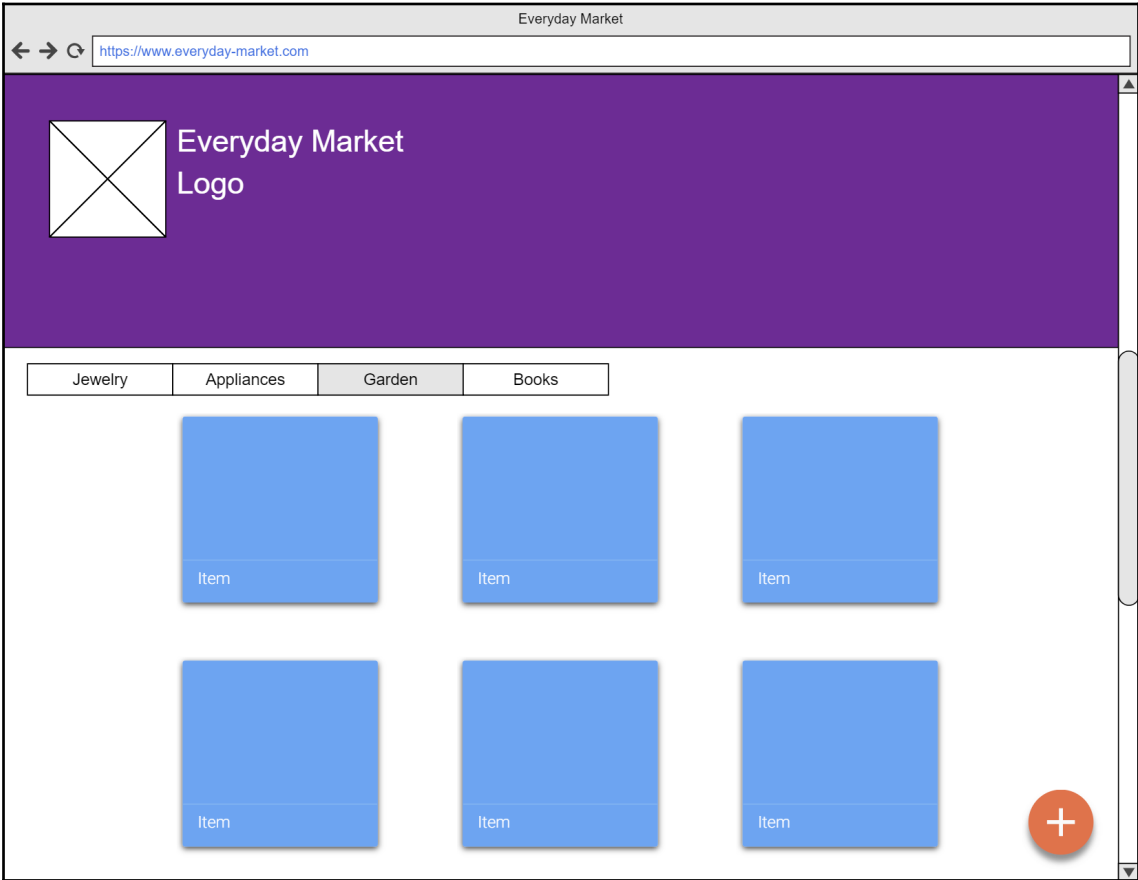
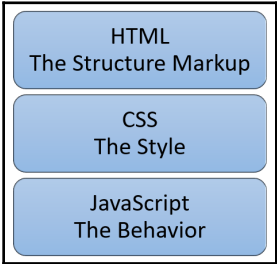
### Messages

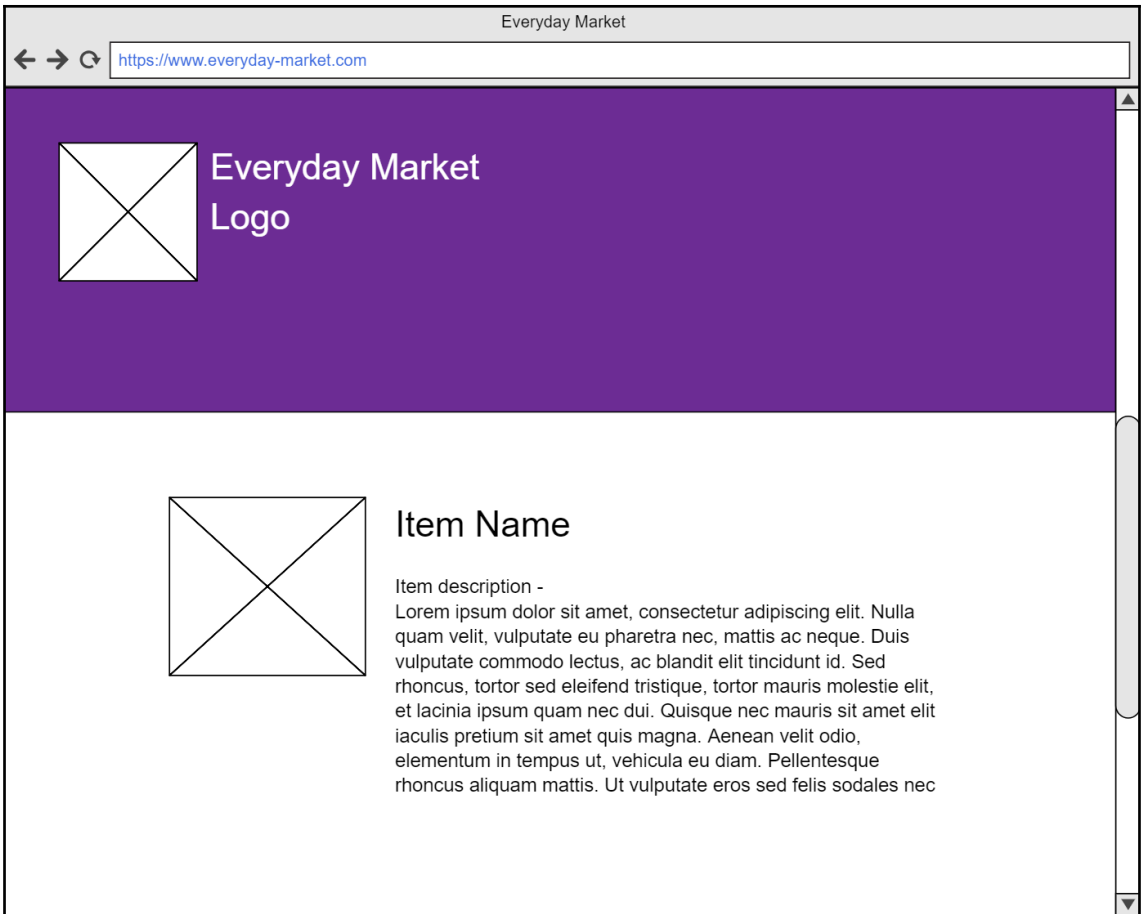
GET /api/Messages/My

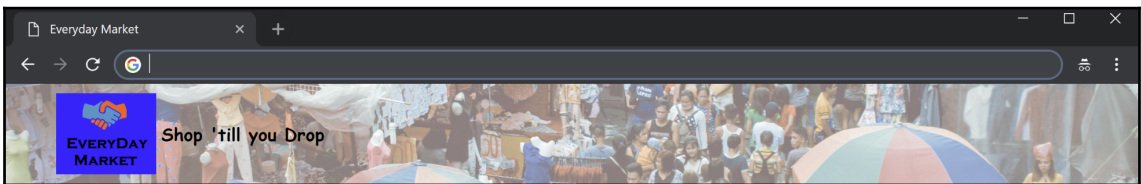
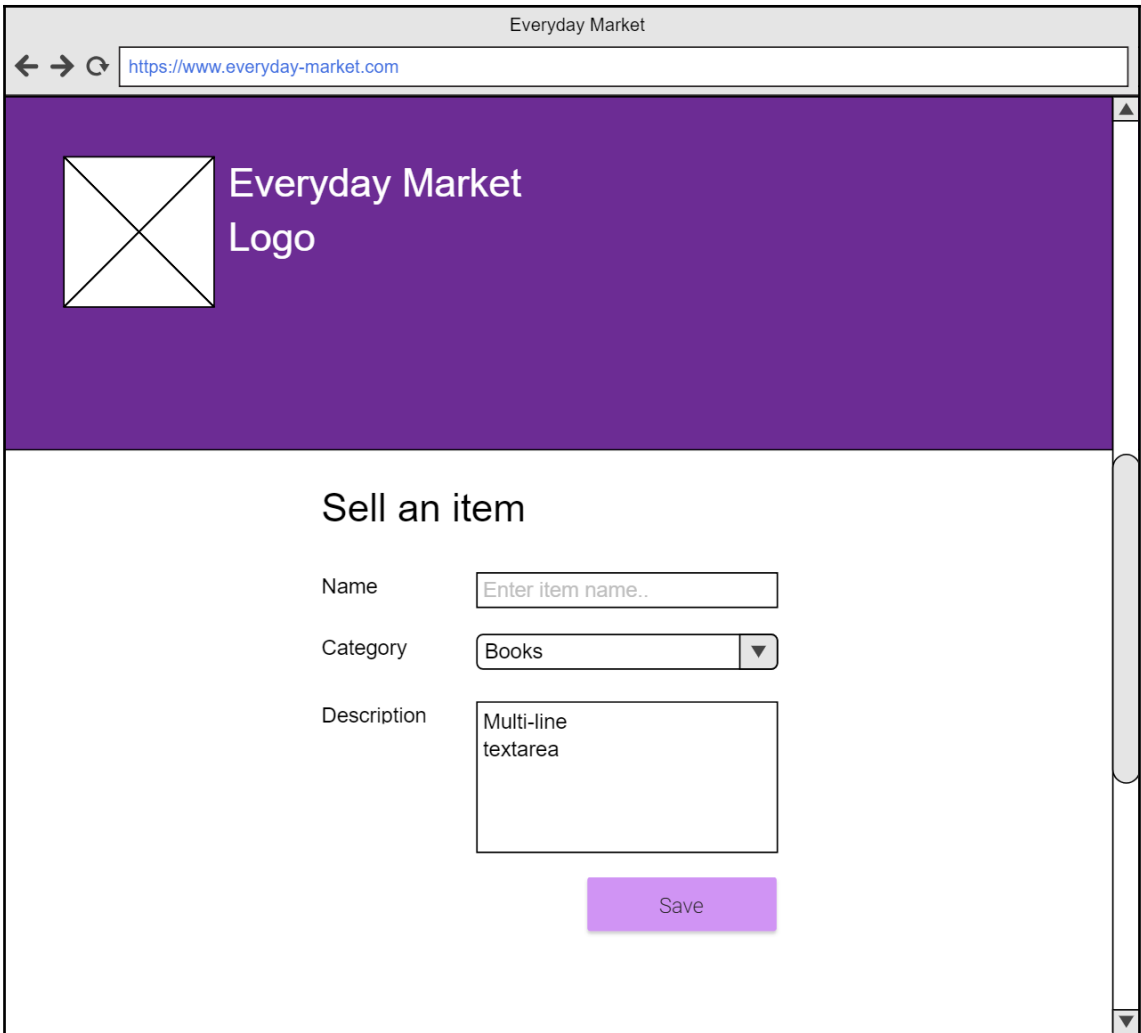


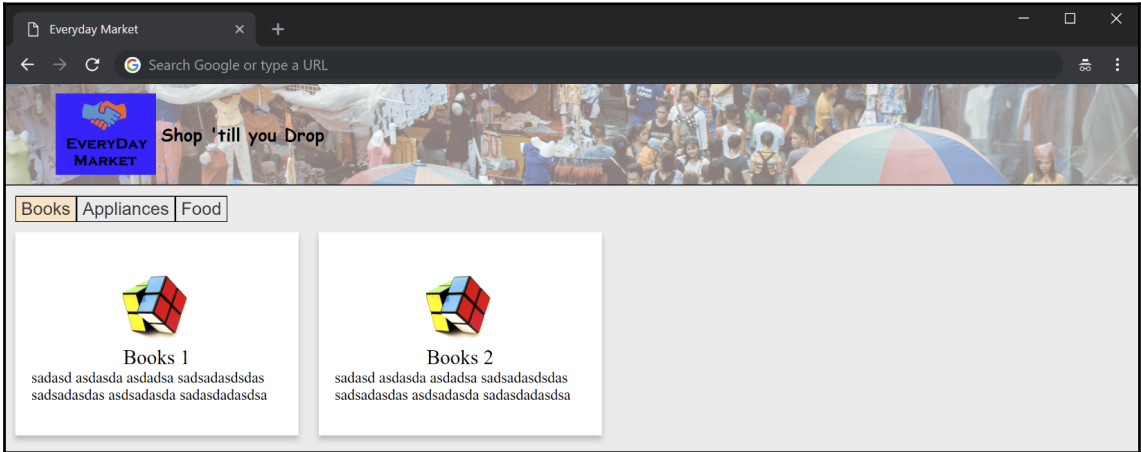
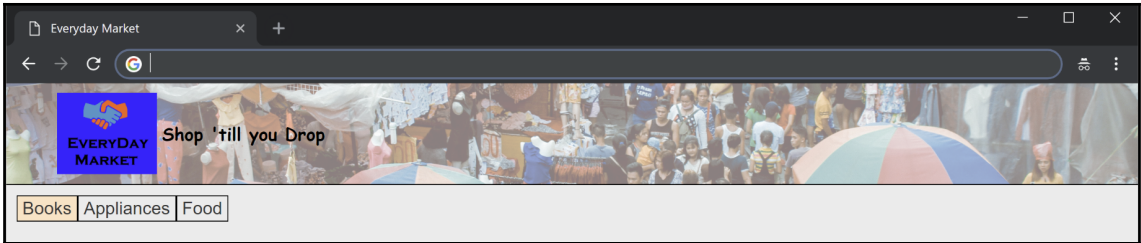
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# Chapter 8: Getting Started with Frontend Web Development



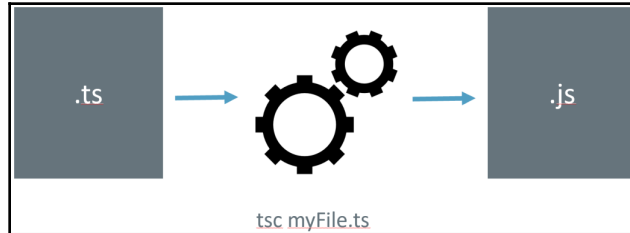






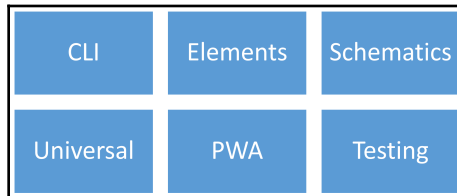
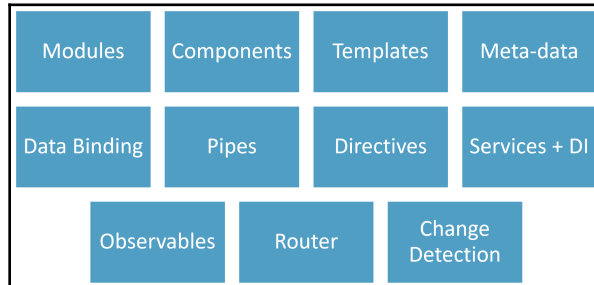
---

## Chapter 9: Getting Started with TypeScript



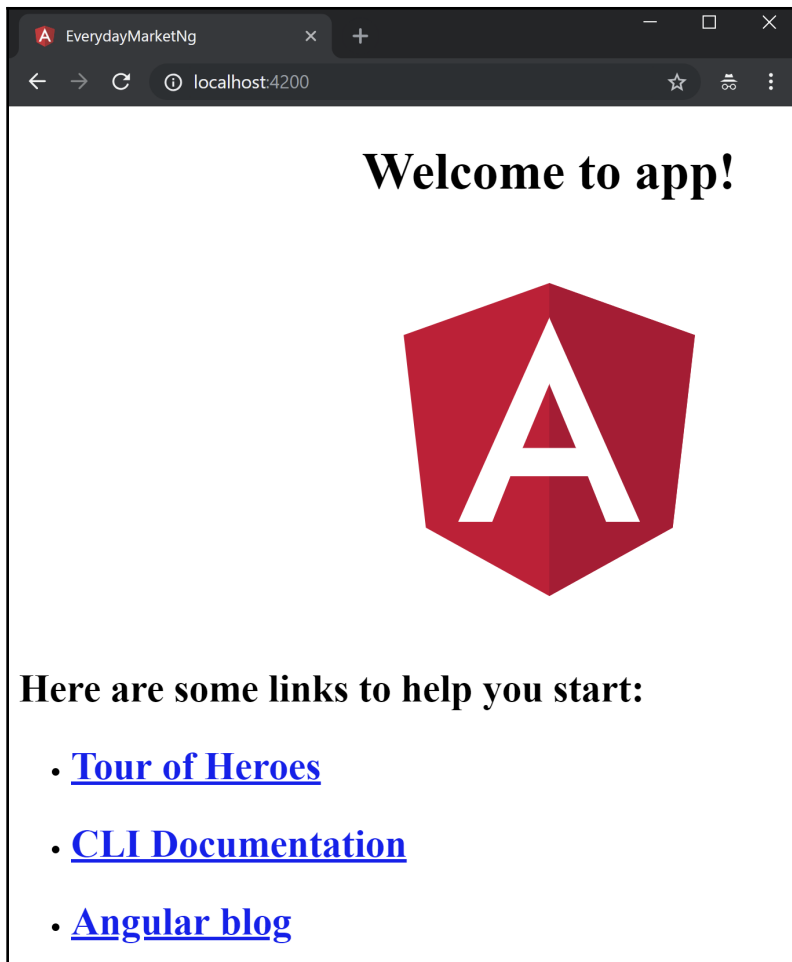
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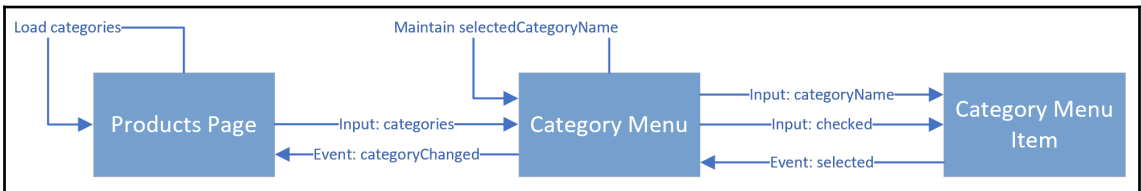
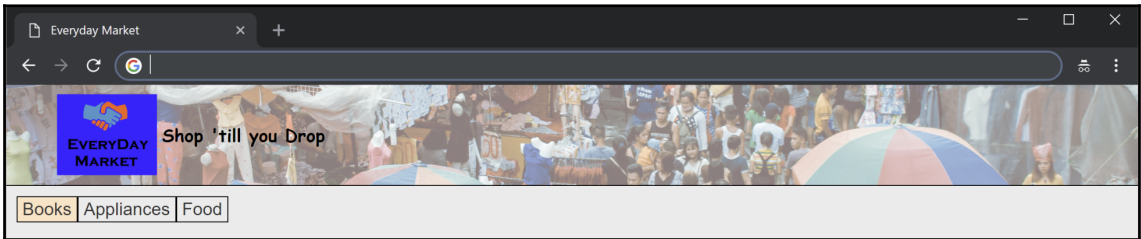
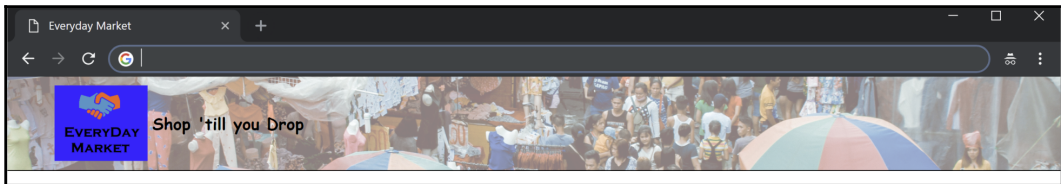
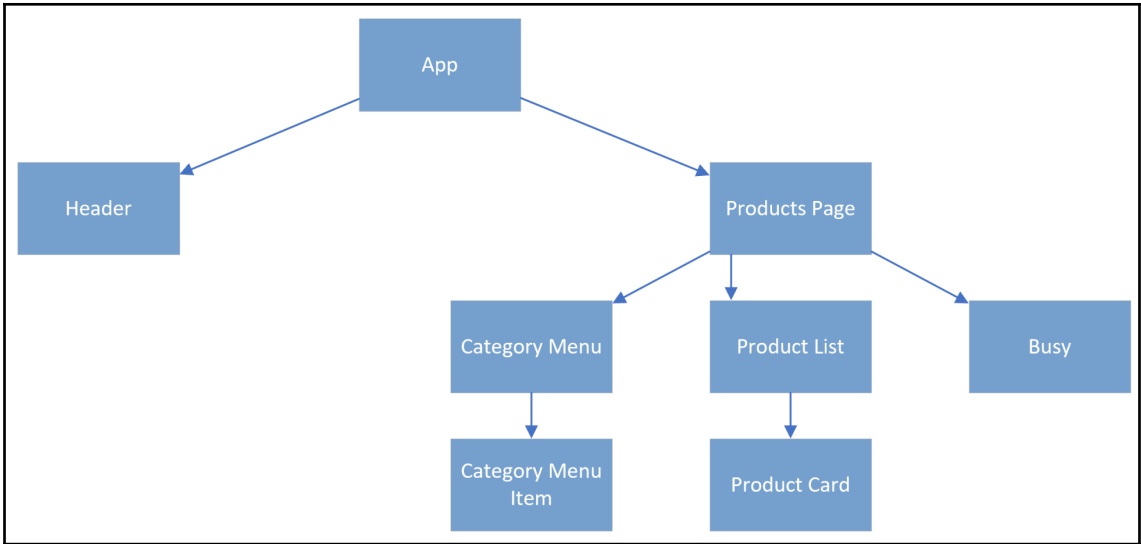
# Chapter 10: App Development with Angular



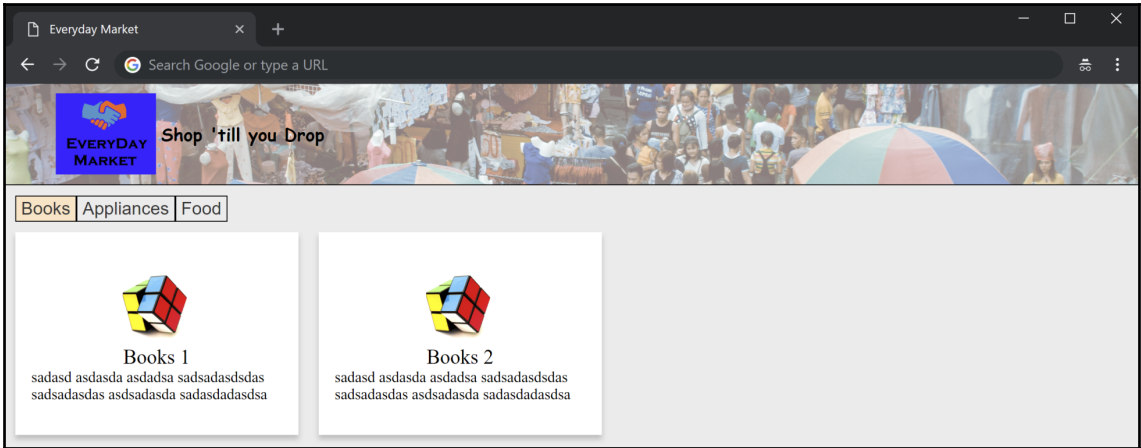
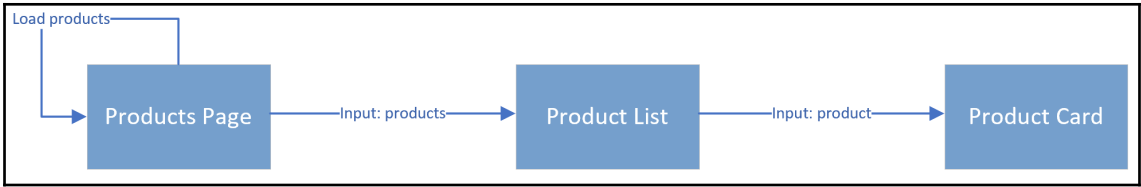
```
MINGW64:/C:/Source/Local/everyday-market-ng
azuke@DESKTOP-M7J2N7D MINGW64 /C:/Source/Local/everyday-market-ng (master)
$ ng serve
** Angular Live Development Server is listening on localhost:4200, open your browser on http://localhost:4200/ **

Date: 2018-10-21T14:36:40.848Z
Hash: 14f438ed698fa7371c91
Time: 5948ms
chunk {main} main.js, main.js.map (main) 10.7 kB [initial] [rendered]
chunk {polyfills} polyfills.js, polyfills.js.map (polyfills) 227 kB [initial] [rendered]
chunk {runtime} runtime.js, runtime.js.map (runtime) 5.22 kB [entry] [rendered]
chunk {styles} styles.js, styles.js.map (styles) 15.6 kB [initial] [rendered]
chunk {vendor} vendor.js, vendor.js.map (vendor) 3.28 MB [initial] [rendered]
! [wdm]: Compiled successfully.
```



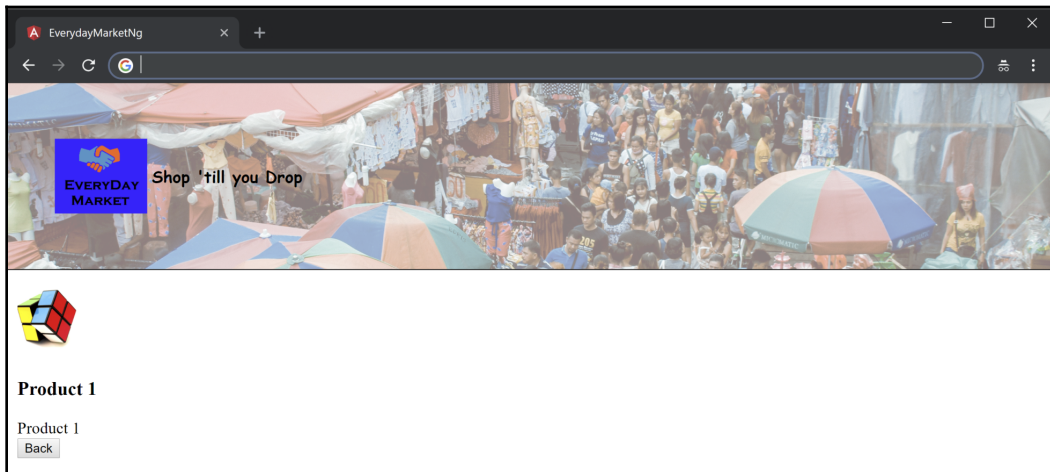
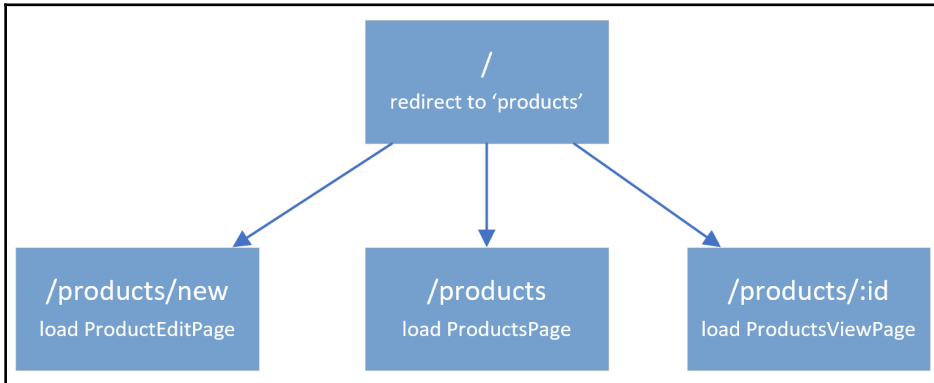


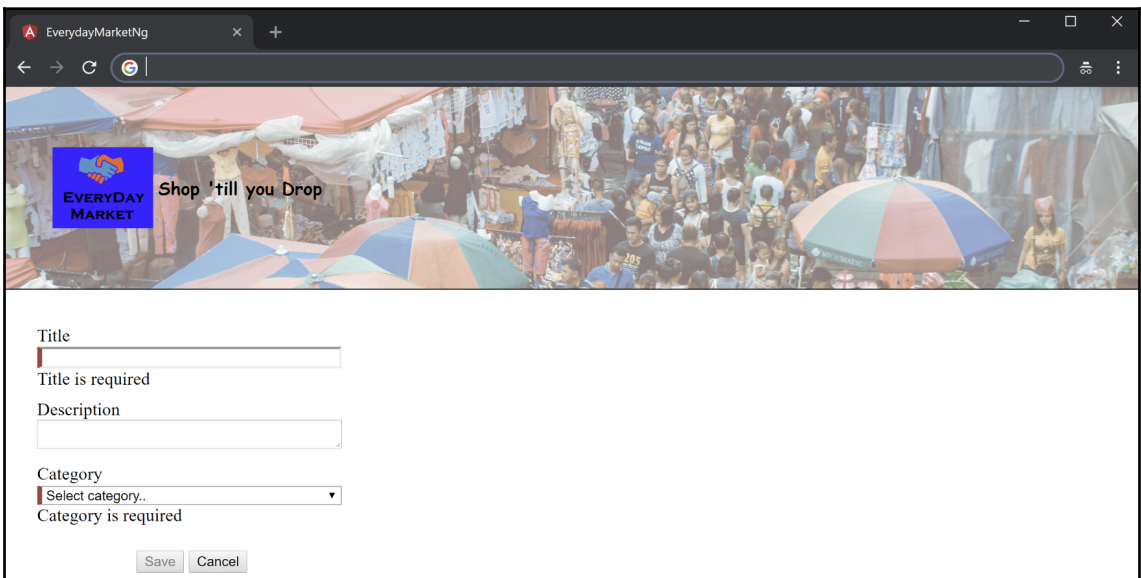
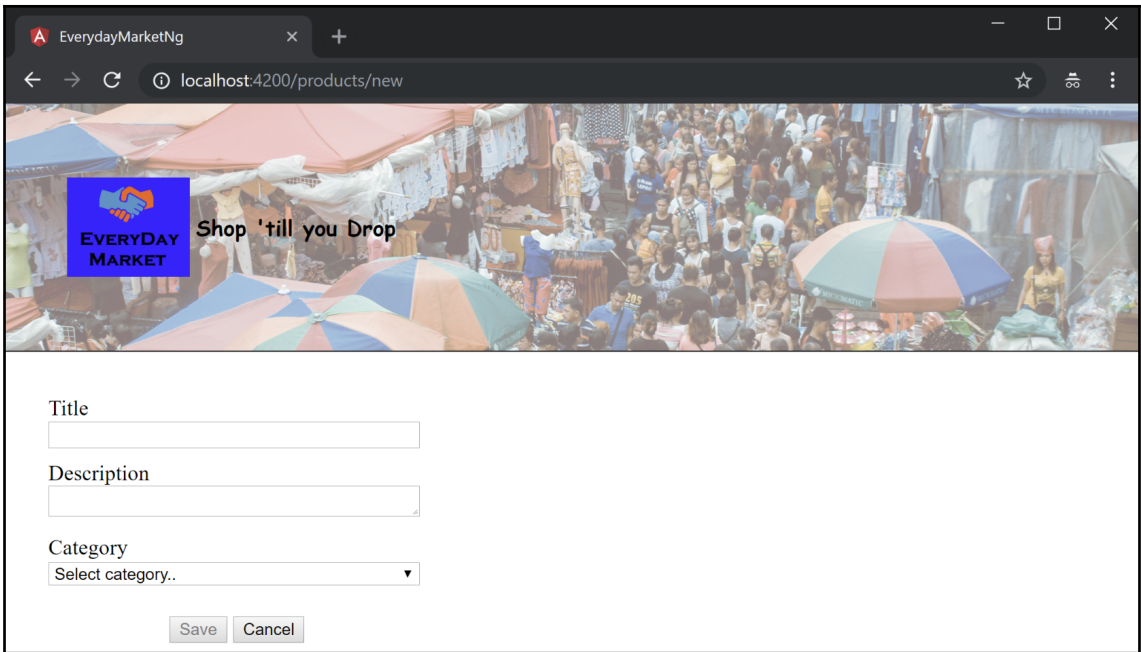




---

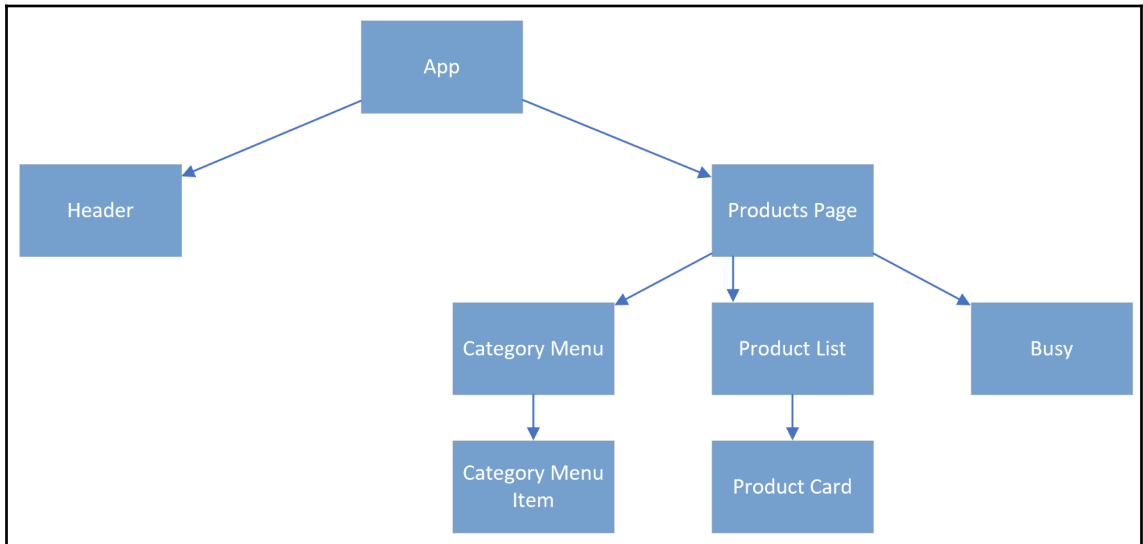
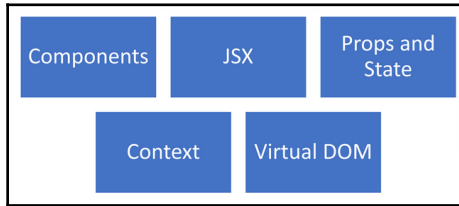
# Chapter 11: Implementing Routing and Forms

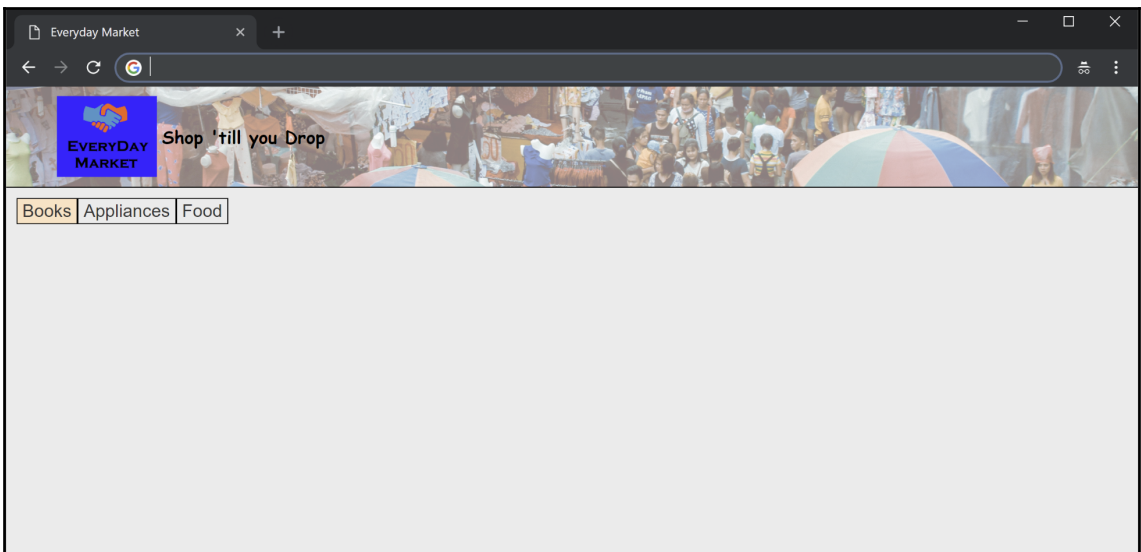
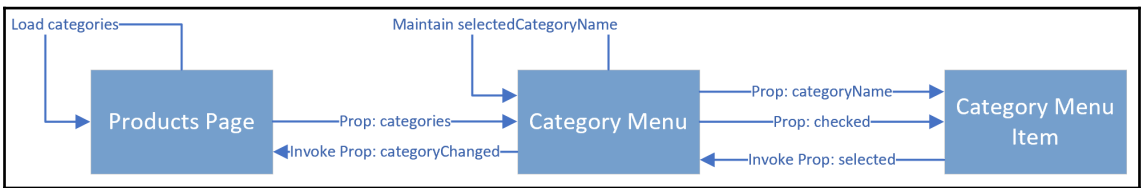
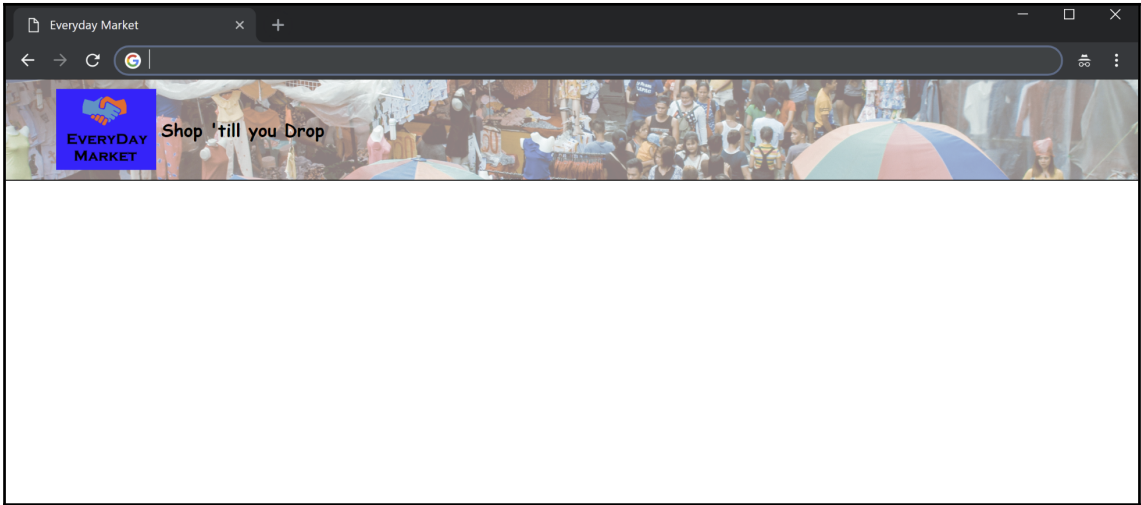


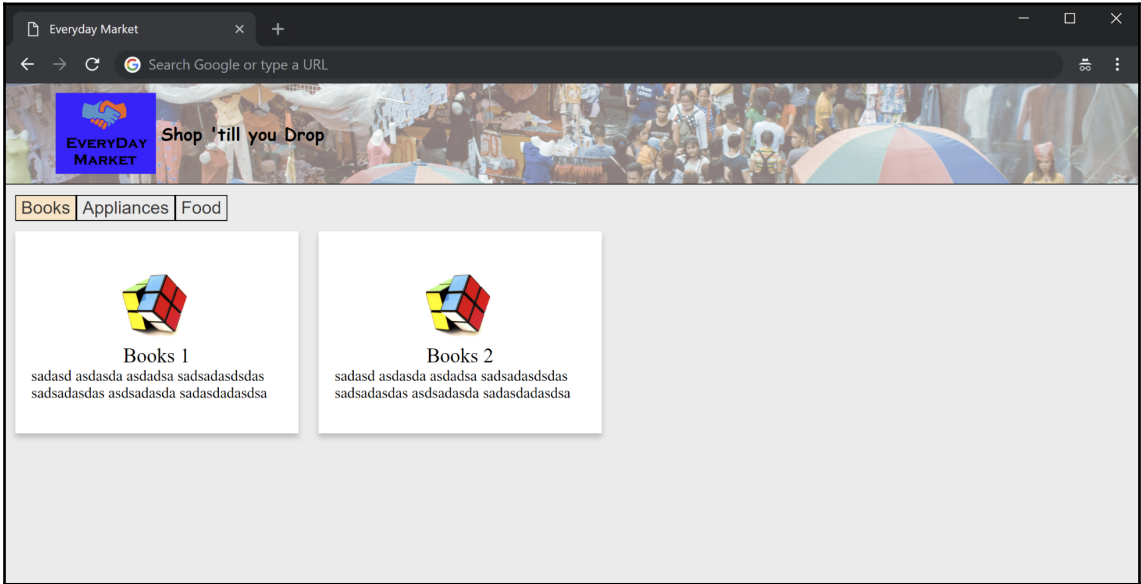
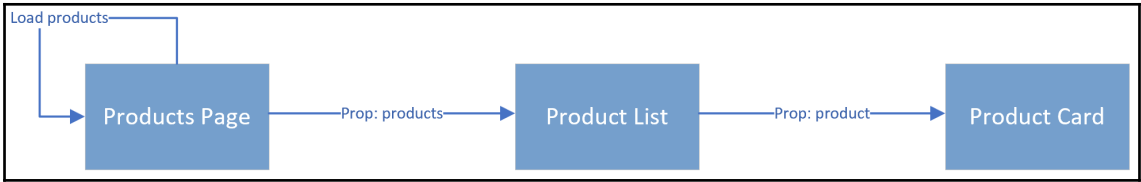


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# Chapter 12: App Development with React

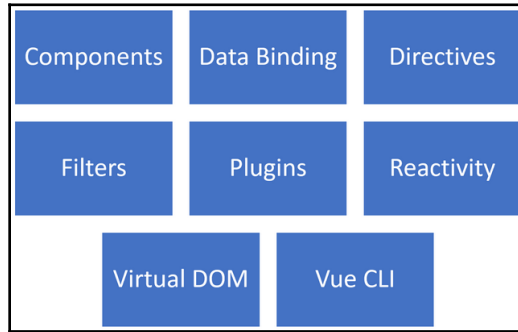


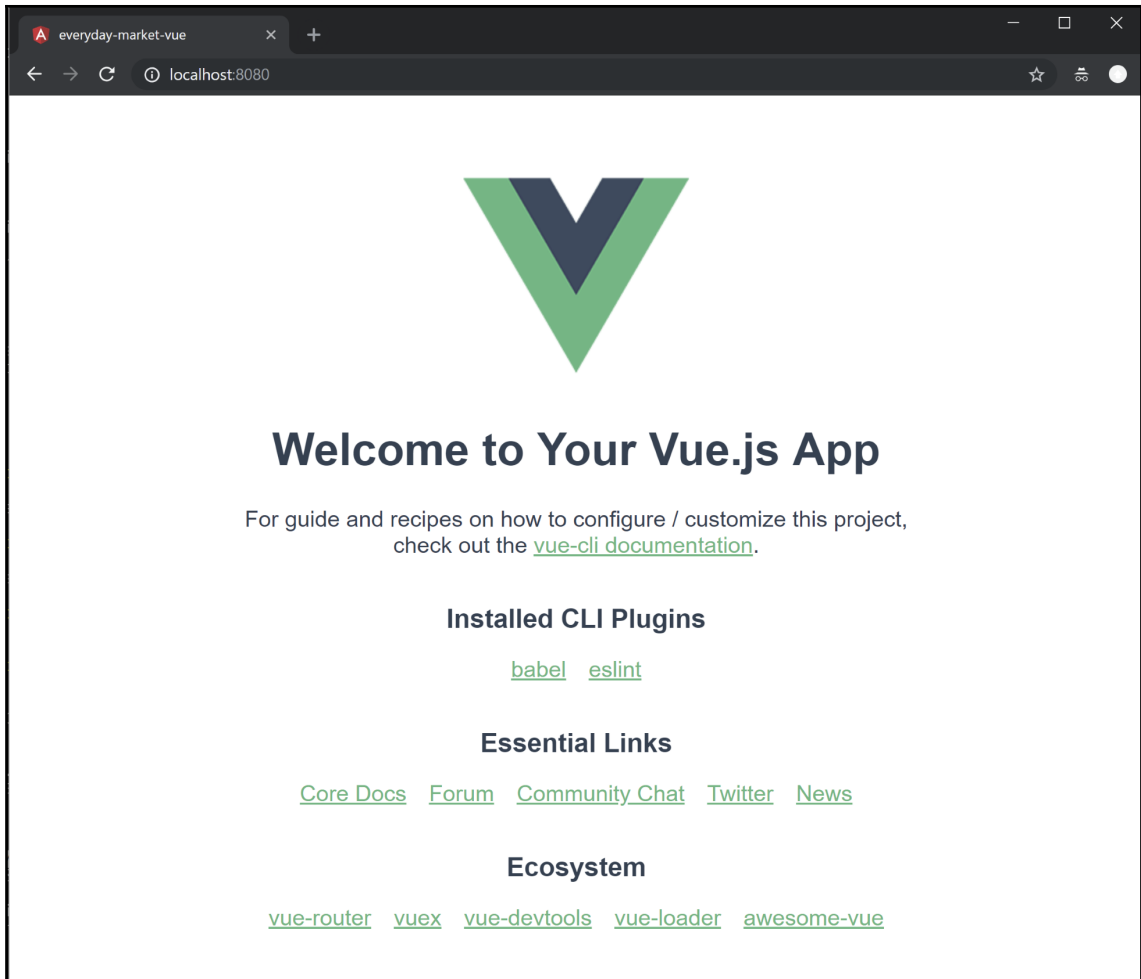




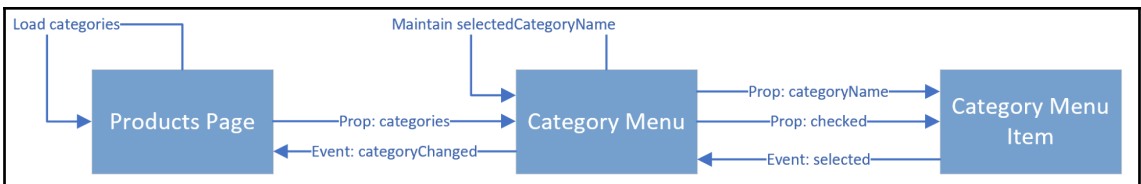
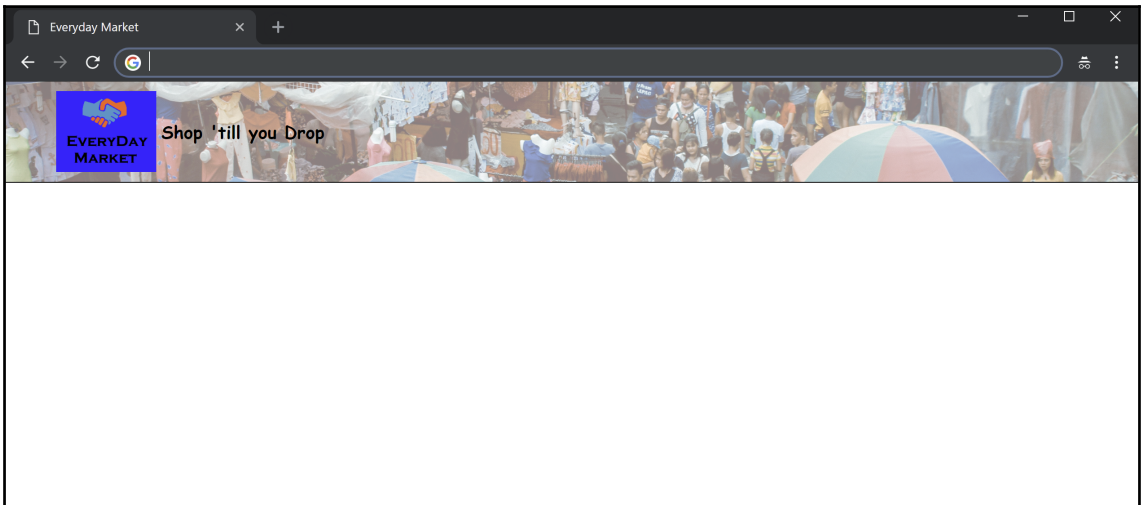
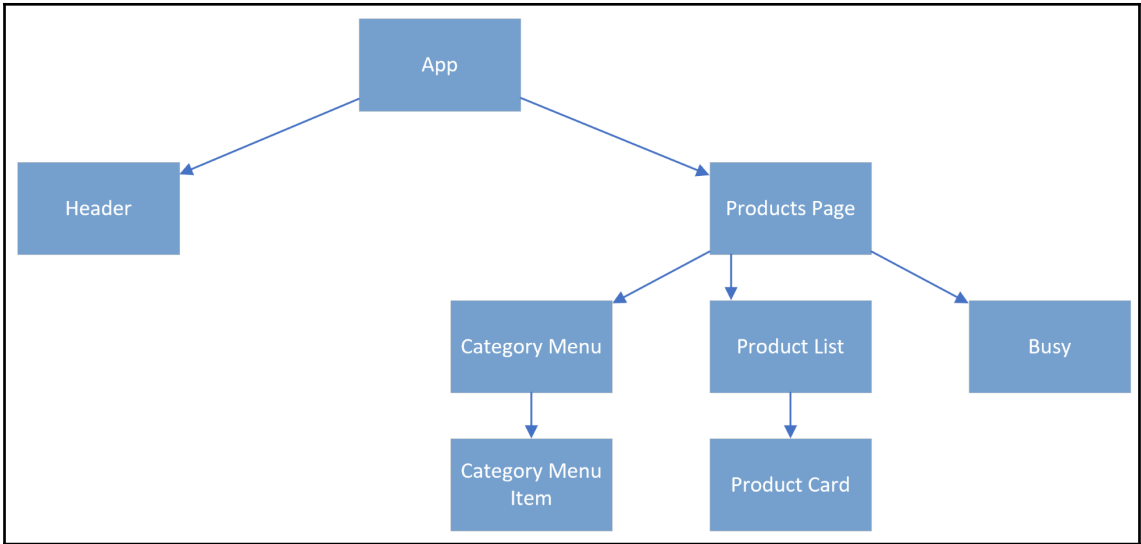
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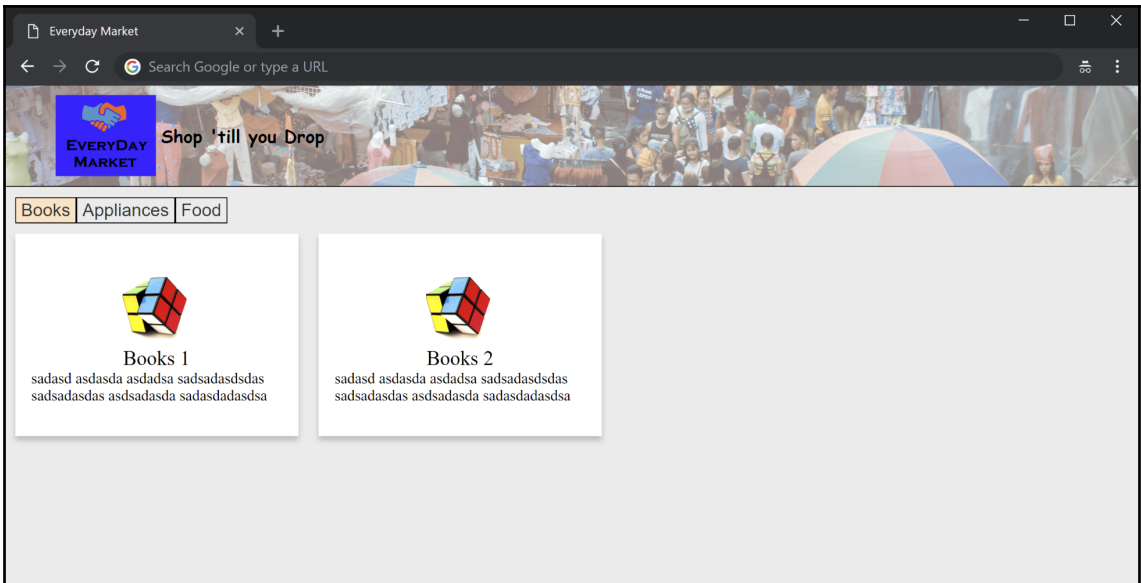
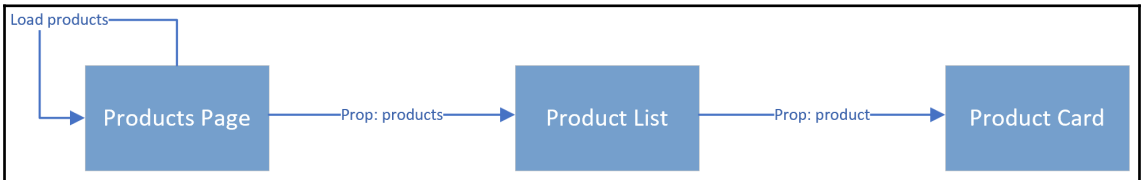
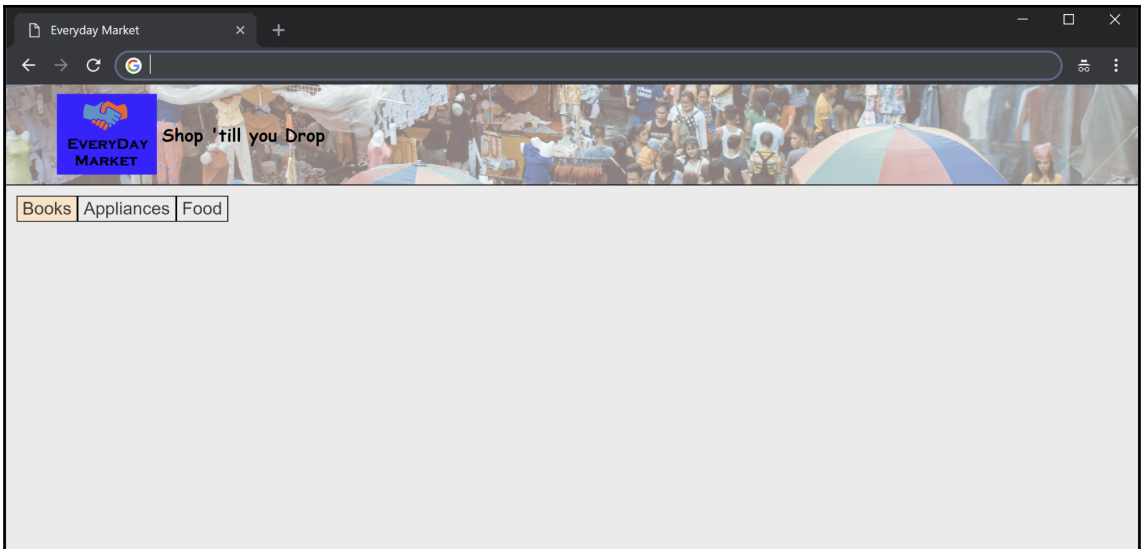
# Chapter 13: App Development with Vue



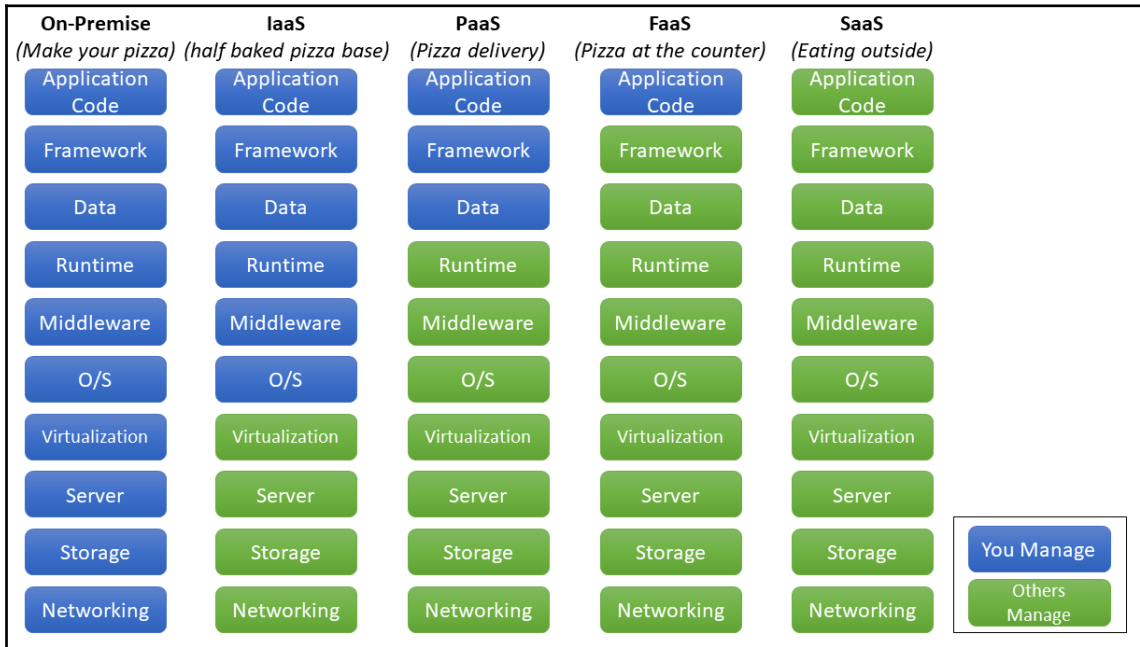








# Chapter 14: Moving Your Solution to the Cloud



# Azure free account sign up

Start with a \$200 credit for 30 days, and keep going for free



## 1 About you



Country/Region ⓘ

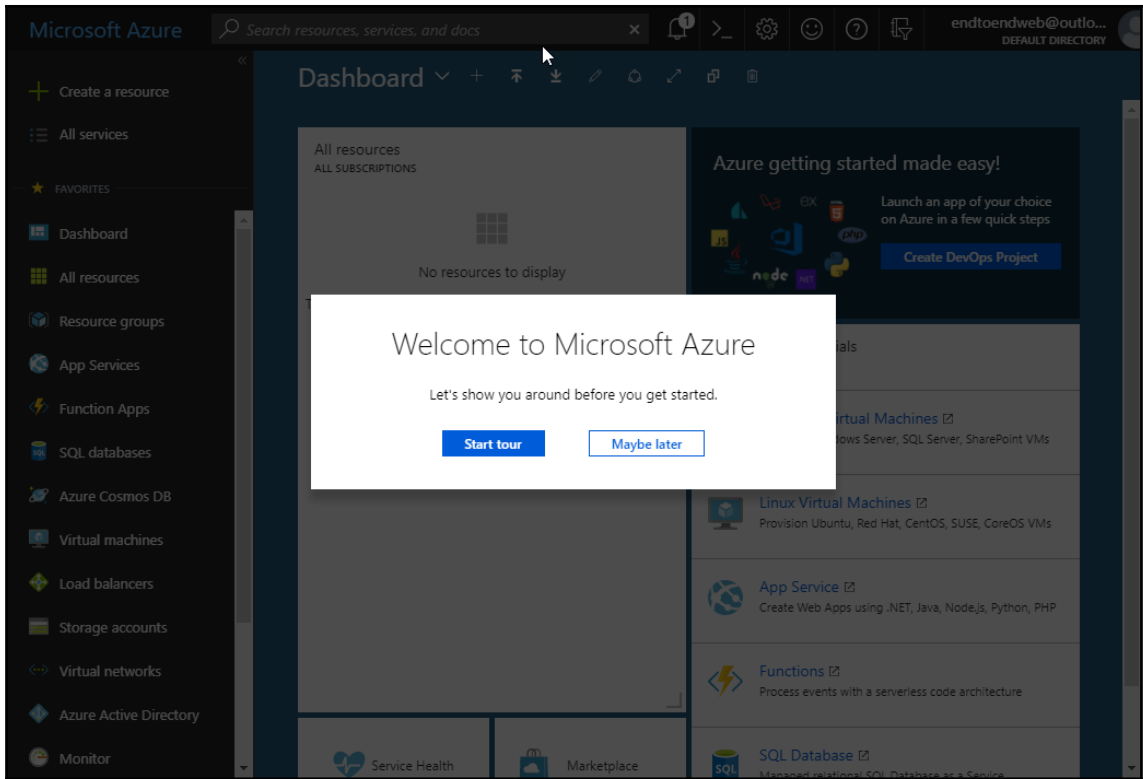
First name

Last name


Email address ⓘ

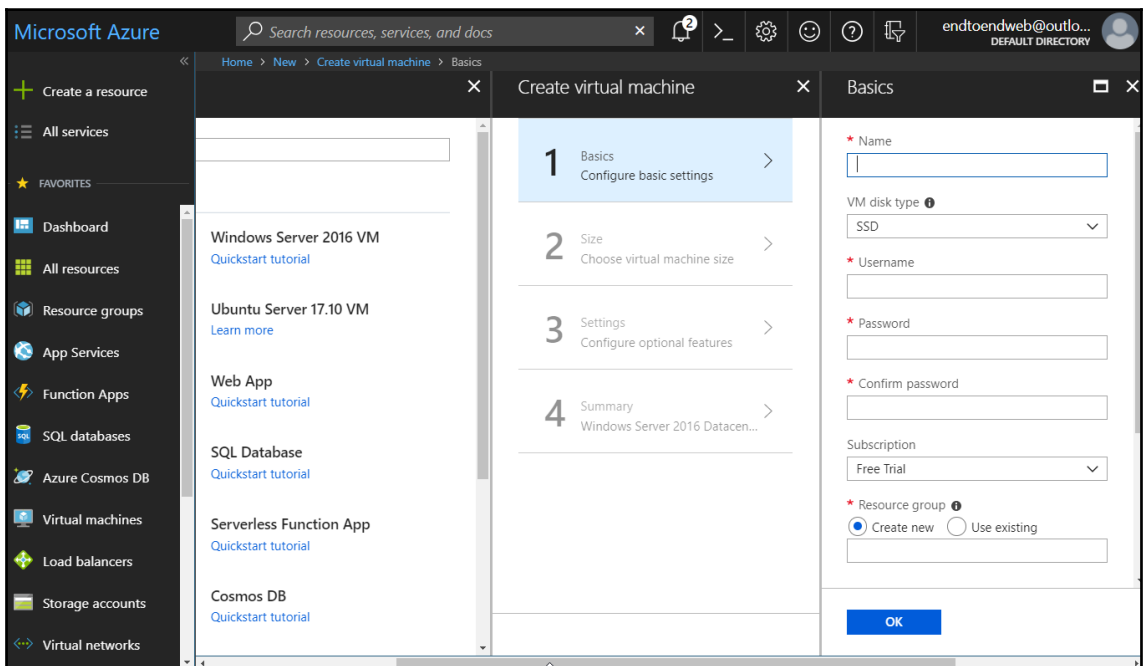
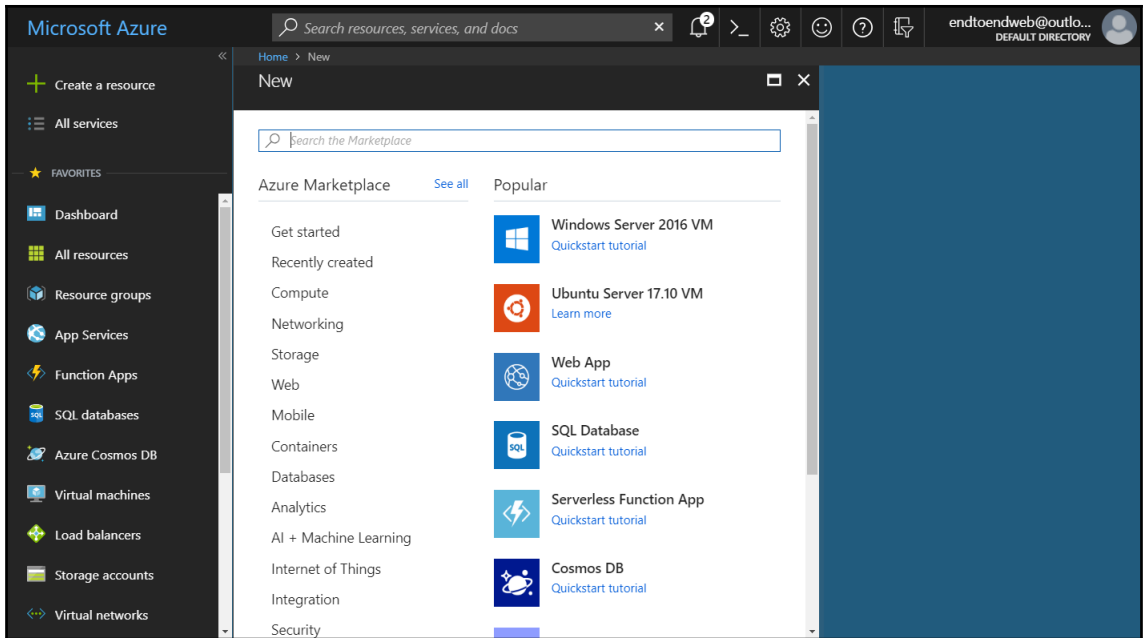
Phone

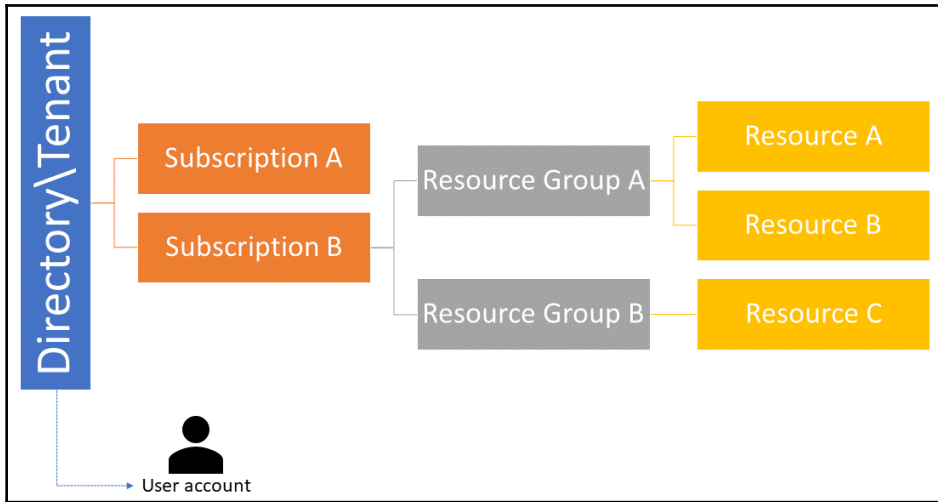
By proceeding you acknowledge the [privacy statement](#) and [subscription agreement](#)



The screenshot shows the Microsoft Azure portal interface. On the left is a navigation sidebar with a '+ Create a resource' button at the top, marked with a blue circle containing the number '1'. Below it are 'All services' and 'FAVORITES' sections. The main area is titled 'Dashboard' and contains several widgets. A search bar at the top is marked with a blue circle containing the number '2'. The top right corner shows the user profile 'endoendweb@outlo...' and 'DEFAULT DIRECTORY', marked with a blue circle containing the number '3'. The 'All resources' widget lists 'GiveNTakeDB' (SQL database), 'SampleVM' (Virtual machine), and 'giventakedbsrv' (SQL server), with a 'See more...' link. The 'CPU (average)' widget shows a line graph with a peak at 4 PM, marked with a blue circle containing the number '4'. The 'Resource' widget shows another line graph with a small peak at 3:45 PM. Below these are 'Quickstarts + tutorials' for Windows and Linux Virtual Machines, App Service, and Functions. At the bottom right are 'Service Health' and 'Marketplace' buttons.

 Create a resource

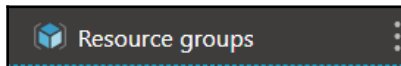




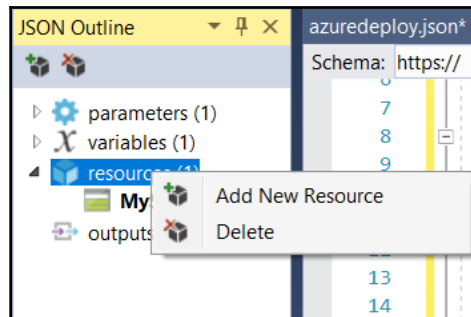
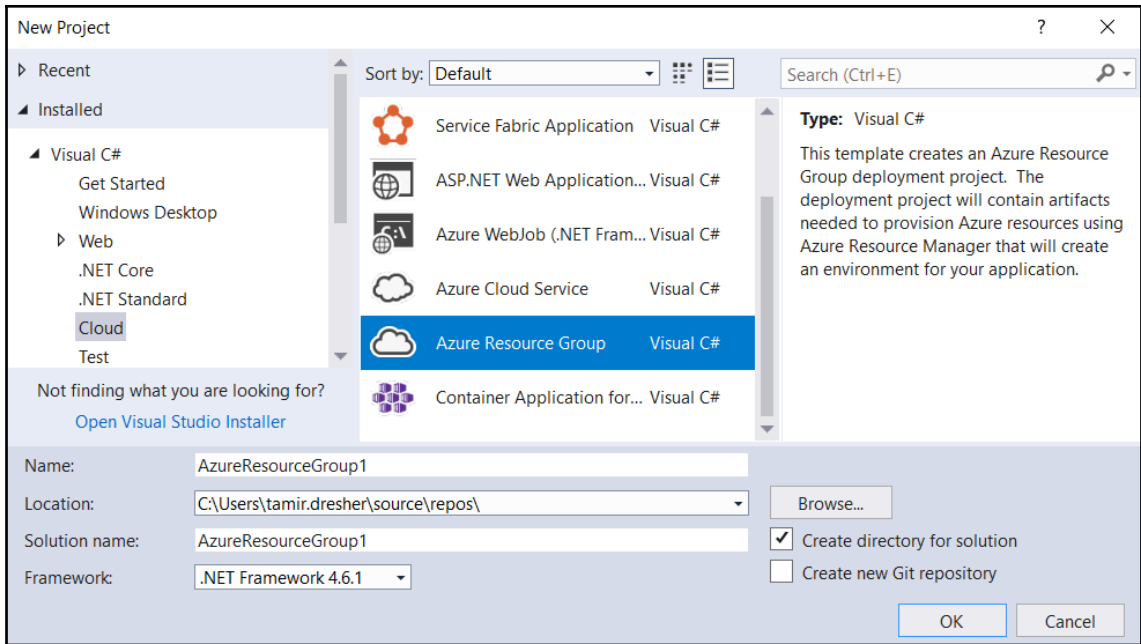
The screenshot shows the "Web App" creation form in the Azure portal. The breadcrumb navigation at the top reads "Home > New > Web App". The form title is "Web App" with a "Create" button below it. The form contains the following fields:

- \* App name:** A text input field with the placeholder "Enter a name for your App" and ".azurewebsites.net" to its right.
- \* Subscription:** A dropdown menu currently showing "Pay-as-you-go".
- \* Resource Group:** Radio buttons for "Create new" (unselected) and "Use existing" (selected). Below the radio buttons is a dropdown menu with a red exclamation mark icon. The dropdown list contains the following items: "GiveNTake", "RGExample", "VstsResourceGroup-giventakeapi1", "give2894e", and "gt1".

A dark grey tooltip with the text "You must select a resource group" is positioned over the Resource Group dropdown menu.







Home > Resource groups > GiveNTake - Automation script

## GiveNTake - Automation script

Resource group - PREVIEW

Search (Ctrl+/) | Download | Add to library | Deploy

14 resource types cannot be exported yet and are not included in the template. See error details. →

Automate deploying resources with Azure Resource Manager templates in a single, coordinated operation. Define resources and configurable input parameters and deploy with script or code. Learn more about template deployment.

Template Parameters CLI PowerShell .NET Ruby

- Parameters (41)
- Variables (0)
- Resources (40)
  - [parameters]alertrules\_Failure...
  - [parameters]components\_Give...
  - [parameters]servers\_giventake...
  - [parameters]serverfarms\_Give...
  - [parameters]sites\_giventake\_n...
  - [parameters]sites\_GiveNTakeA...
  - [concat(parameters['servers\_gi...
  - [concat(parameters['servers\_gi...
  - [concat(parameters['servers\_gi...
  - [concat(parameters['servers\_gi...
  - [concat(parameters['servers\_gi...
  - [concat(parameters['servers\_gi...
  - [concat(parameters['servers\_gi...
  - [concat(parameters['servers\_gi...
  - [concat(parameters['servers\_gi...

```

1 {
2   "$schema":
3     "https://schema.management.azure.com/schemas/2015-01-01/deploymentTemplate.json#",
4   "contentVersion": "1.0.0.0",
5   "parameters": {
6     "sites_giventake_name": {
7       "defaultValue": "giventake",
8       "type": "String"
9     },
10    "sites_GiveNTakeAPI_name": {
11      "defaultValue": "GiveNTakeAPI",
12      "type": "String"
13    },
14    "serverfarms_GiveNTake_name": {
15      "defaultValue": "GiveNTake",
16      "type": "String"
17    },
18    "servers_giventake_db_srv_name": {
19      "defaultValue": "giventake-db-srv",
20      "type": "String"
21    }
22  }
23 }

```

Microsoft Azure | Contact Sales: 1-809-349-115 | Search | My account | Portal | endtoendweb@outlook.com

Why Azure | Solutions | Products | Documentation | Pricing | Training | Marketplace | Partners | Support | Blog | More | Free account

## Your Estimate

App Service	Free Tier; 1 F1 (0 Core(s), 1 GB RAM, 1 GB Storage) x 73...	\$0.00
Storage	Block Blob Storage, General Purpose V2, LRS Redundan...	\$21.84
Azure SQL Database	Single Database, DTU Purchase Model, Basic Tier, B: 5 D...	\$4.90
Application Insights	5 GB Logs collected, 0 Multi-step Web Tests	\$0.00

**Support**

SUPPORT: Included \$0.00

**Programs and Offers**

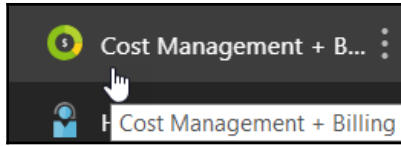
LICENSING PROGRAM: Microsoft Online Services Program (MOSP)

SHOW DEV/TEST PRICING

**Estimated monthly cost** \$26.74

Export | Save | Save as | Share

US Dollar (\$)



Home > Cost Management + Billing > Pay-as-you-go

**Pay-as-you-go**  
Subscription - PREVIEW

Search (Ctrl+/) Manage → Transfer Cancel subscription Rename → Change directory

Overview

- Access control (IAM)
- Diagnose and solve problems
- Security
- Events

Cost Management

- Cost analysis

Billing

- Invoices
- External services
- Payment methods
- Partner information

Settings

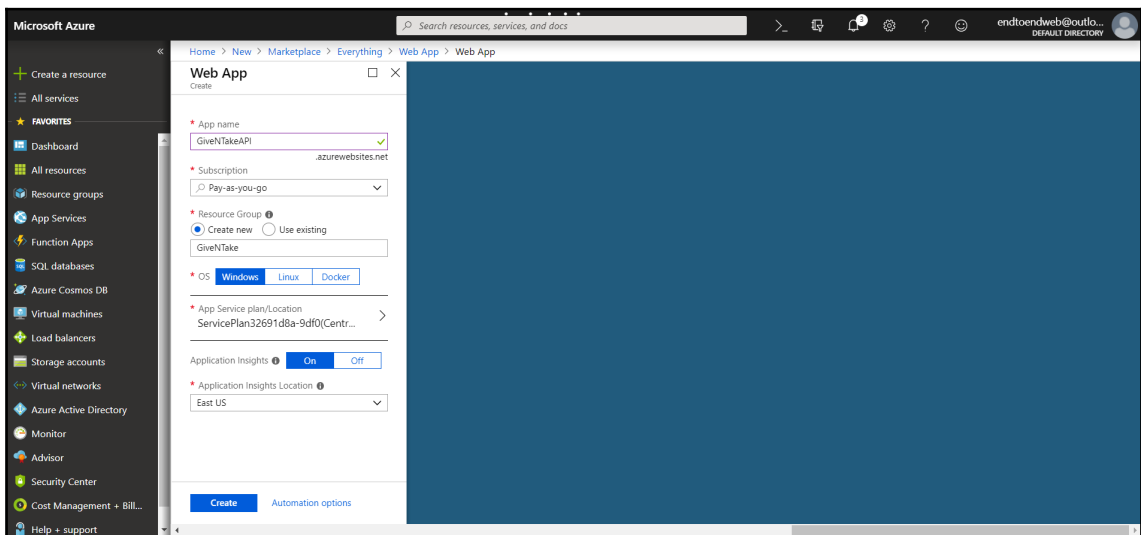
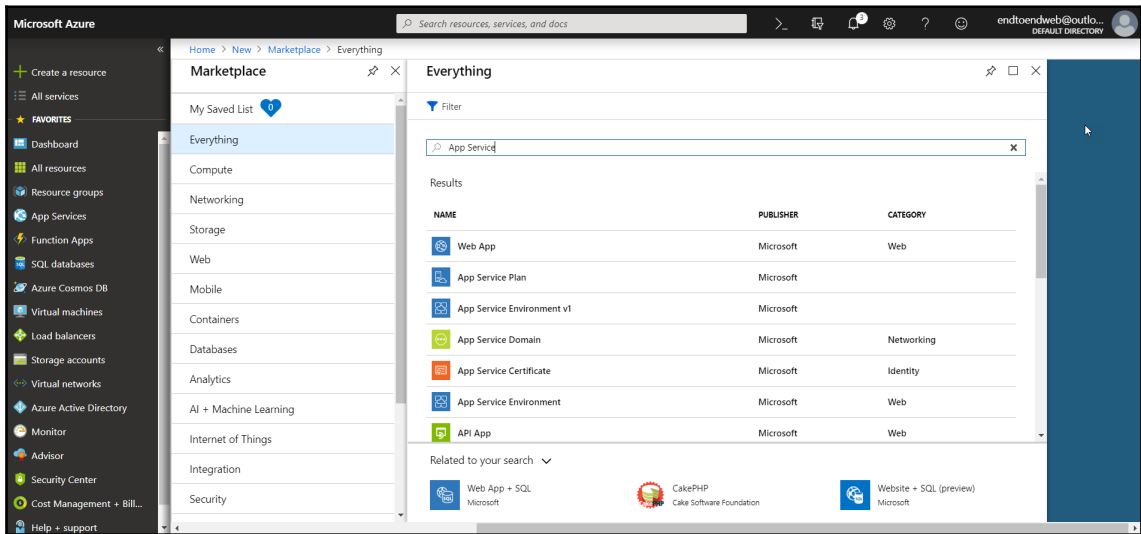
- Programmatic deployment
- Resource groups
- Resources
- Usage + quotas

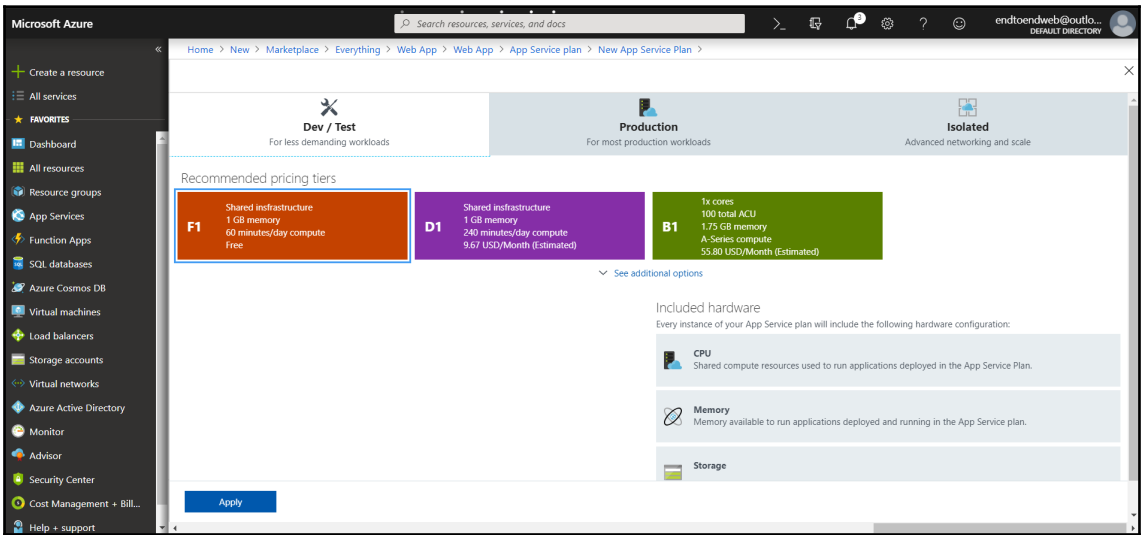
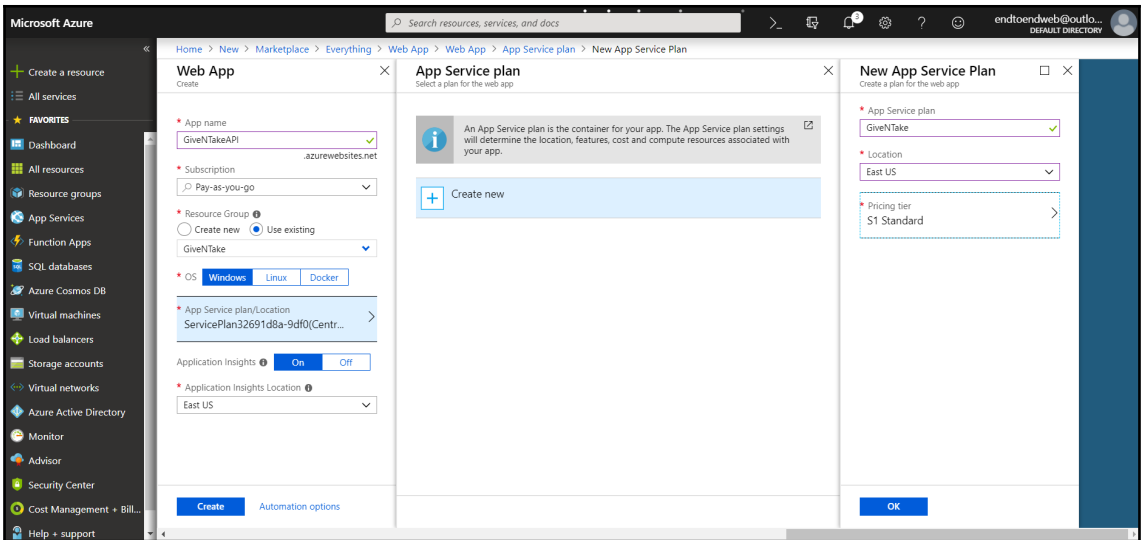
Free services for 12 months ⓘ  
Usage period: 9/8/2018 - 10/7/2018

METER	USAGE/LIMIT	STATUS
Standard S0 Database Days - SQL Database	11% 3.62 / 31 Days	Unlikely to exceed
Storage (GB) - Cosmos DB	0% 0 / 5 GB	Not in use
100 Request Units (Hours) - Cosmos DB	0% 0 / 2,976 Hours	Not in use
Standard IO - Files (GB) - Locally Redundant	0% 0 / 5 GB	Not in use
Premium Managed Disks/P6 (Units) - Locally Redundant	0% 0 / 2 Units	Not in use
Standard Managed Disk/Snapshots (GB) - Locally Redundant	0% 0 / 1 GB	Not in use
Standard Managed Disk Operations (in 10,000s)	0% 0 / 200 10K Operations	Not in use
Standard IO - Hot Block Blob (GB) - Locally Redundant	0% 0 / 5 GB	Not in use
B1s - BS Series	0% 0 / 750 1 Hour	Not in use
B1s - BS Series Windows	0% 0 / 750 1 Hour	Not in use

Usage and status data is delayed one to two days.  
Costs for usage over your free services limit will be applied to your payment method. [Learn more](#)

# Chapter 15: Deploying to Microsoft Azure





Microsoft Azure

Search resources, services, and docs

endtoendweb@outlo...  
DEFAULT DIRECTORY

Home > GiveNTakeAPI

### GiveNTakeAPI

App Service

Search (Ctrl+F)

Click here to access our Quickstart guide for deploying code to your app →

Resource group (change)  
GiveNTake

Status  
Running

Location  
East US

Subscription (change)  
Pay-as-you-go

Subscription ID  
bd51f004-5a89-4282-bc5c-ec1518068dfb

Tags (change)  
Click here to add tags

URL  
<https://giventakeapi.azurewebsites.net>

App Service plan/pricing tier  
GiveNTake (Free: 0.Small)

FTP (deployment username)  
No FTP/deployment user set

FTP hostname  
ftp://waws-prod-blu-099.ftp.azurewebsites.windows.net

FTPS hostname  
ftps://waws-prod-blu-099.ftp.azurewebsites.windows.net

**Diagnose and solve problems**  
Our self-service diagnostic and troubleshooting experience helps you identify and resolve issues with your web app.

**Application Insights**  
Application Insights helps you detect and diagnose quality issues in your apps, and helps you understand what your users actually do with it.

**App Service Advisor**  
App Service Advisor provides insights for improving app experience on the App Service platform. Recommendations are sorted by freshness, priority and impact to your app.

Http 5xx 100

Data In 100B

Home > GiveNTakeAPI - Data connections

### GiveNTakeAPI - Data connections

App Service

Search (Ctrl+*/*)

Mobile

- Easy tables
- Easy APIs
- Data connections**

API

- API definition
- CORS

Monitoring

- ✓ Alerts (Classic)
- Diagnostics logs
- Log stream
- Process explorer

+ Add

NAME	TYPE
No Data Connections	





Home > GiveNTakeAPI - Data connections > Add data connection > Database > SQL Database > Configure

### SQL Database Configure

**Name**  
Enter database name

**Target server**  
giventake-db-srv (East US)

**Pricing tier**  
Standard S0. 10 DTUs, 250 GB

**Collation**  
SQL\_Latin1\_General\_CP1\_CI\_AS

**Feedback**

Free	Basic	Standard	Premium
A basic level database with shared storage.	For less demanding workloads	For workloads with typical performance requirements	For IO-intensive workloads.
Starting at 4.99 USD / month	Starting at 15.00 USD / month	Starting at 45.00 USD / month	Starting at 465.00 USD / month

**vCore-based purchasing options**  
Click here to customize your performance using vCores

Within the Free tier, you will have 5 DTUs and 32 MB of shared storage. This free DB trial will end in null days, after which it will be upgraded to Basic. If you'd like to move into a paid option and experience higher performance, then select one of our other offerings above.

[Click here to learn more about our SQL database offerings](#)

**Cost Summary**

Cost per DTU (in USD)	0.00
DTUs selected	x 5
<b>EST. COST PER MONTH</b>	<b>0.00 USD</b>

**Select** **Apply**

Home > App Services > GiveNTakeAPI - Data connections > Add data connection > Connection string

### Add data connection

Type: SQL Database

SQL Database: giventake-db

Connection string: MS\_TableConnectionString

**OK**

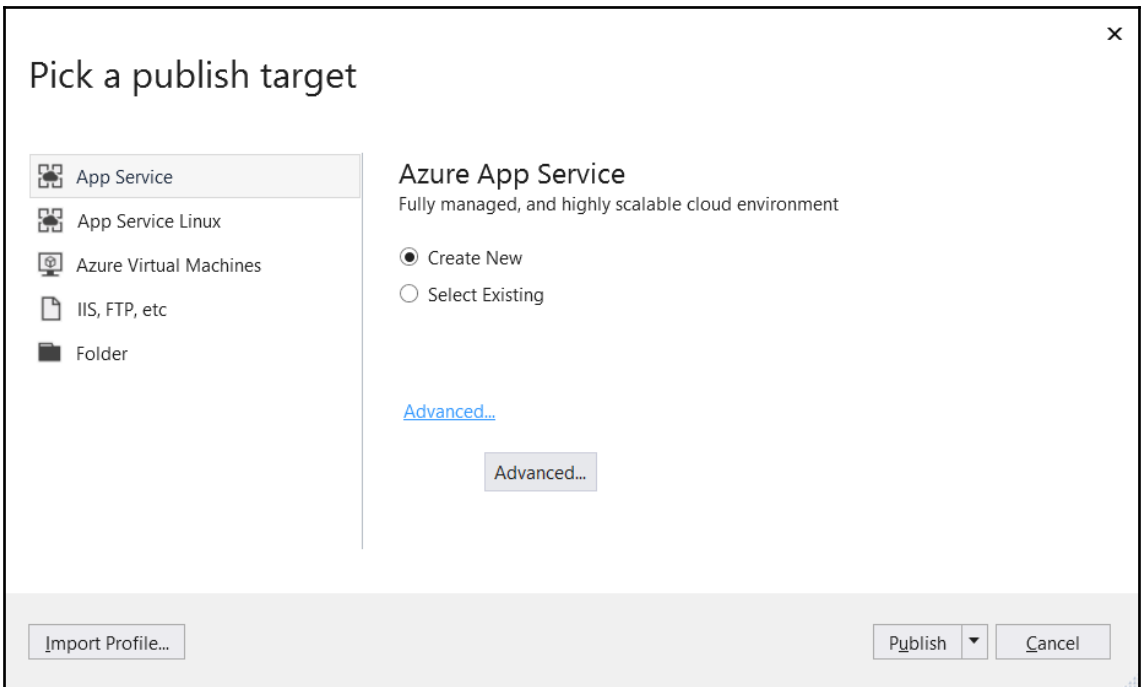
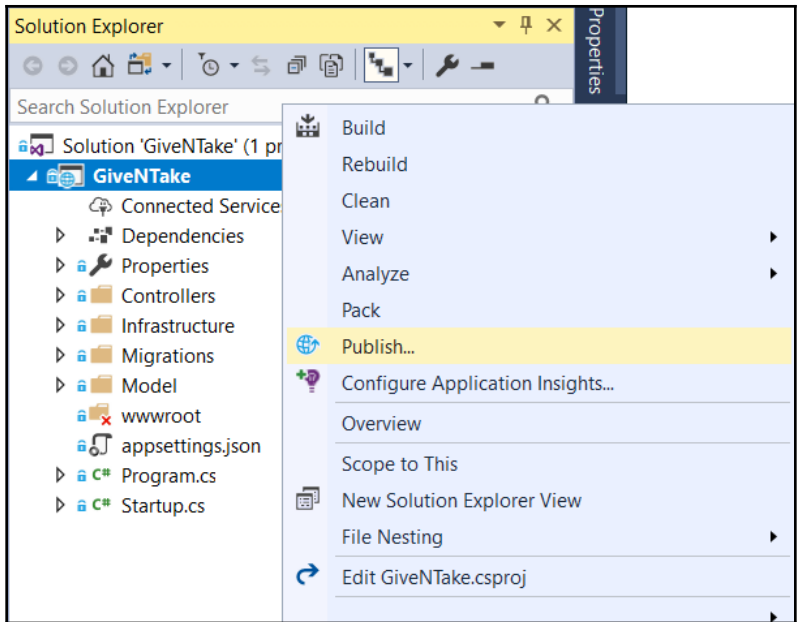
### Connection string

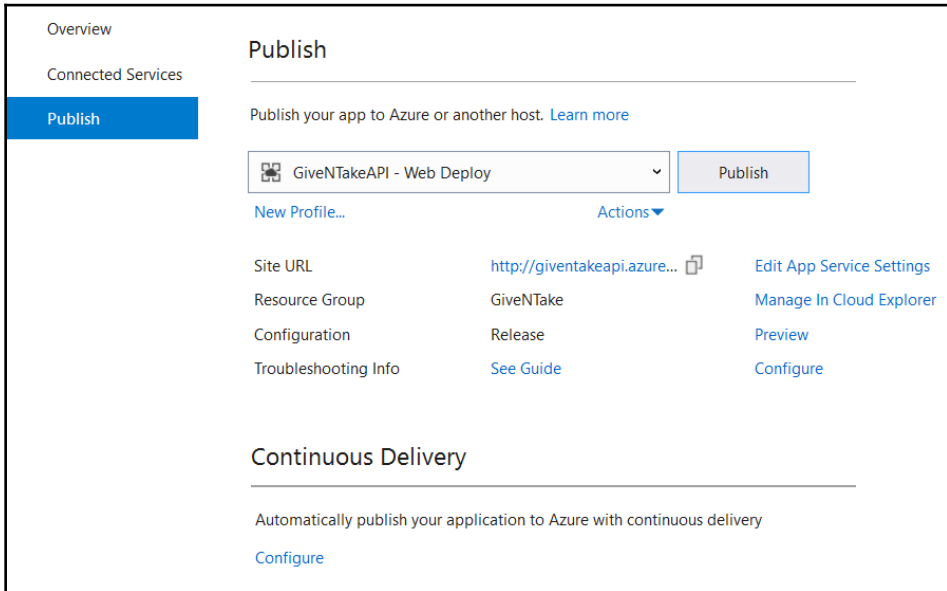
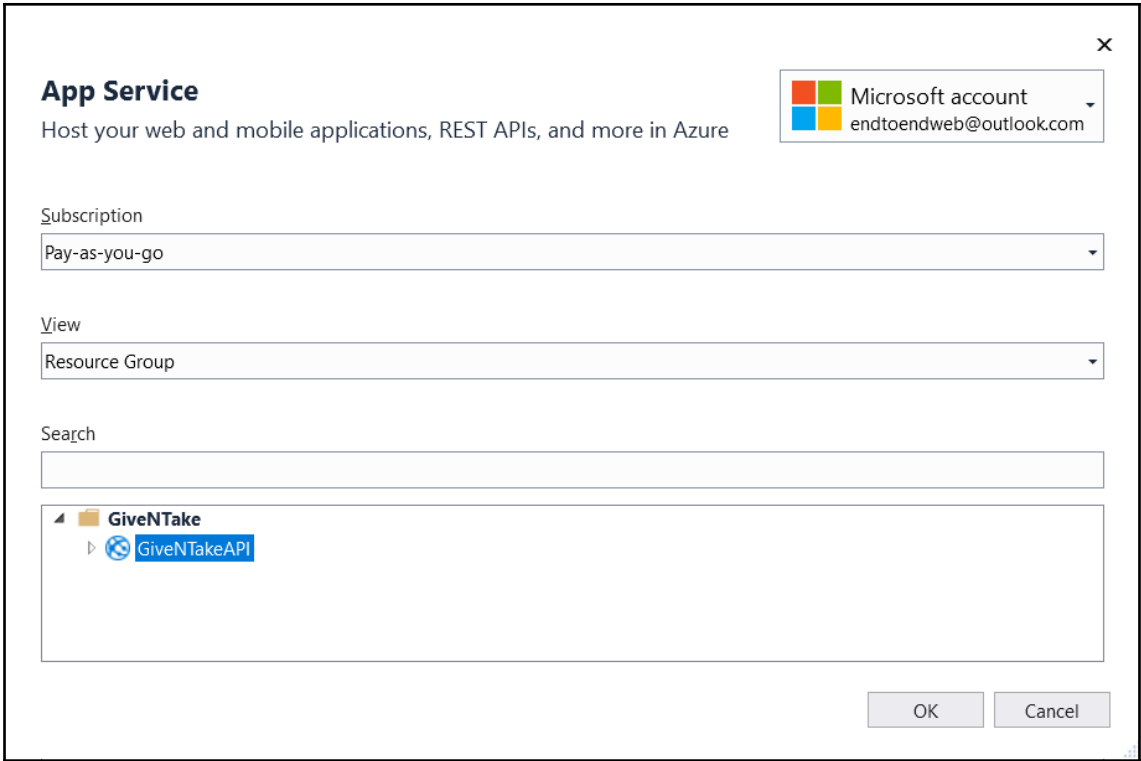
**Name**: GiveNTakeDB

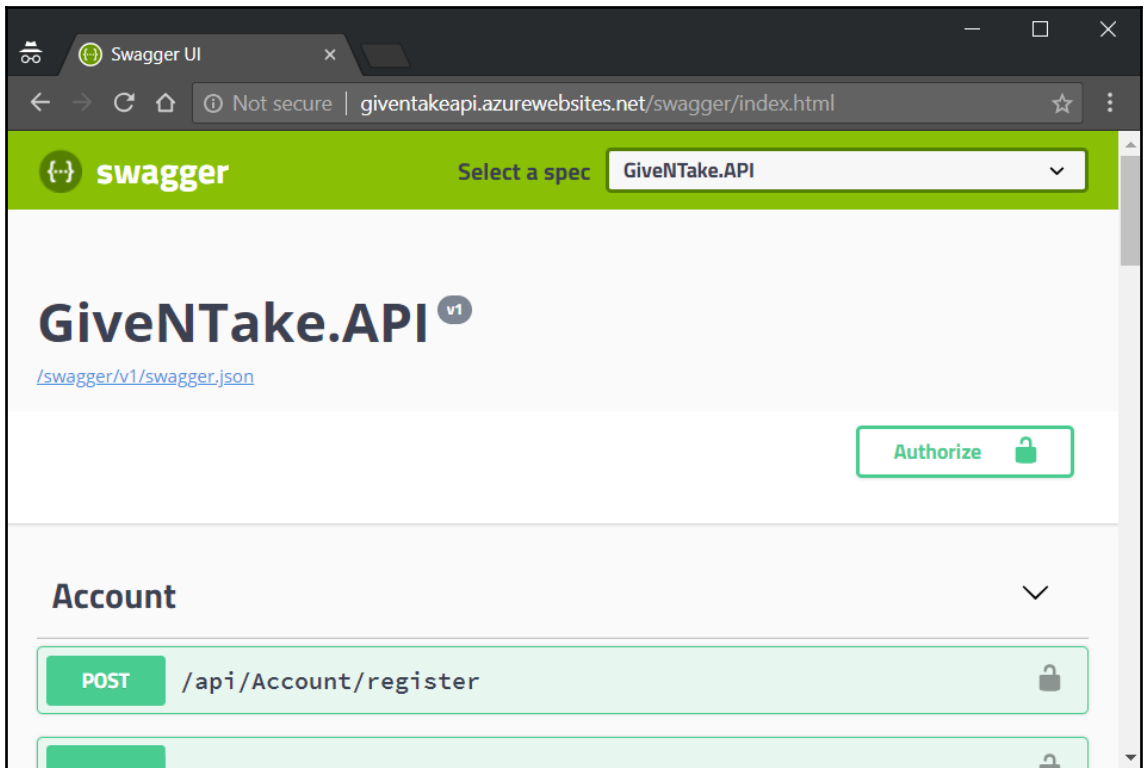
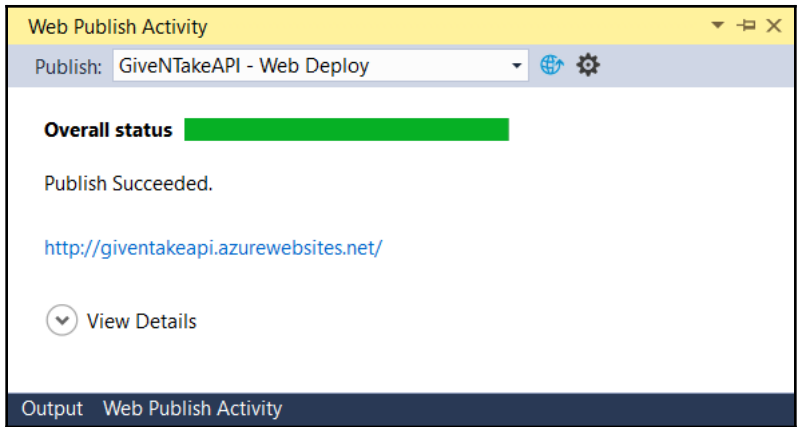
SQL Admin Username: AdminUserName

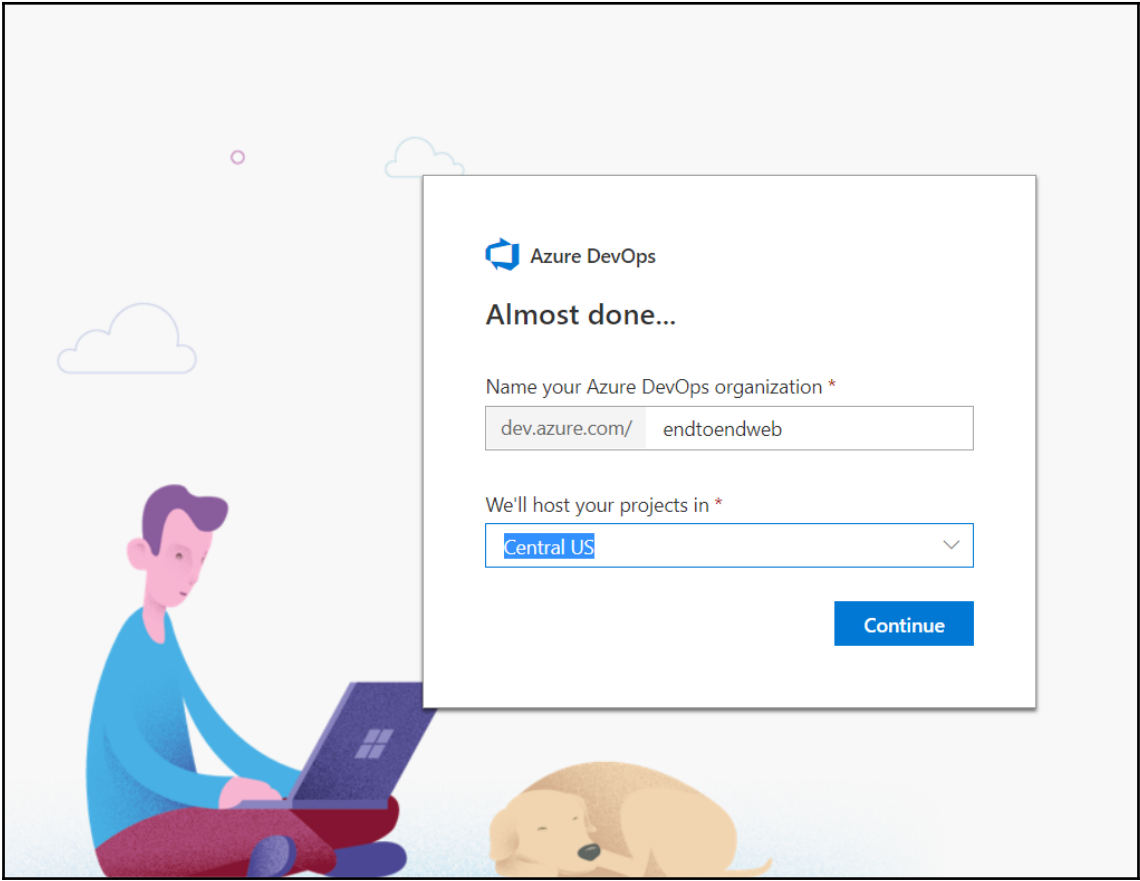
SQL Admin Password: .....

**OK**









Azure DevOps

My organizations

- endoendweb

Related pages

- What's new in DevOps
- Documentation
- Get help

+ New organization

⚙️ Organization settings

## Create a project to get started

Project name \*

 ✓

Visibility

Public

Anyone on the internet can view the project. Certain features like TFVC are not supported.

Private

Only people you give access to will be able to view this project.

[+ Create project](#)

Azure DevOps

endoendweb / GiveNTakeAPI / Overview / Summary

GiveNTakeAPI

Private [Invite](#) ☆

Overview

Summary

Dashboards

Wiki

Boards

Repos

Pipelines

Test Plans

Artifacts

- Builds
- Releases\*
- Library
- Task groups
- Deployment groups

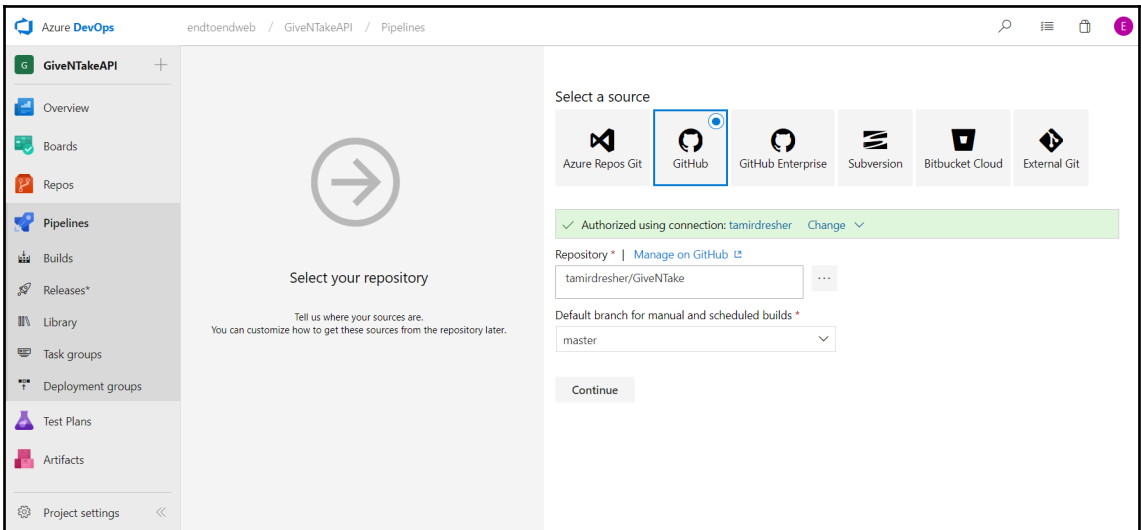
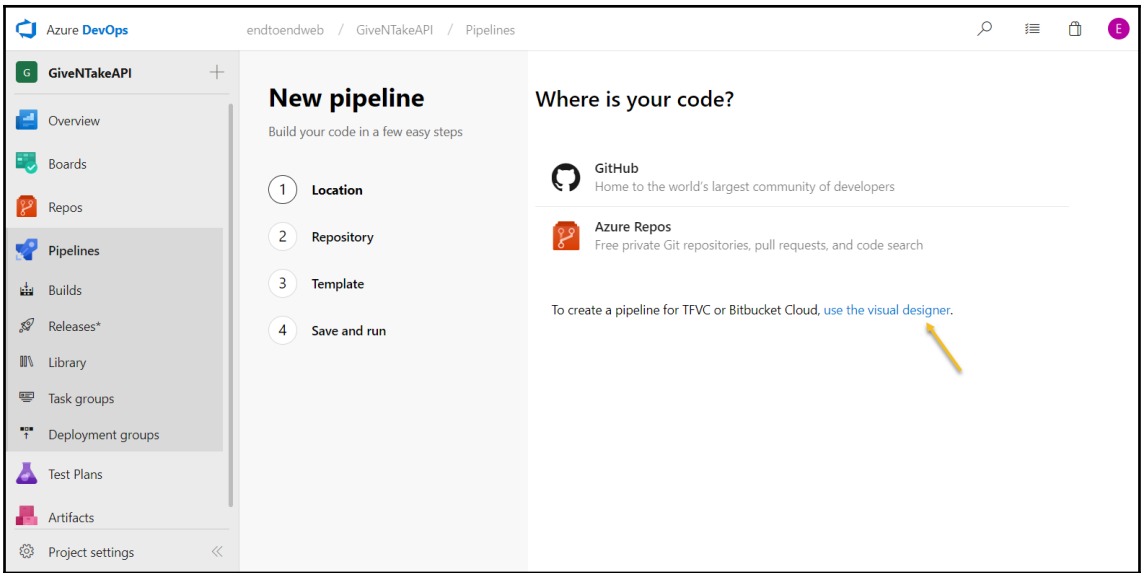
## Welcome to the project!

What service would you like to start with?

### Project stats

No stats are available at this moment  
Setup a service to see project activity.

[https://dev.azure.com/endoendweb/GiveNTakeAPI/\\_build](https://dev.azure.com/endoendweb/GiveNTakeAPI/_build)




Azure DevOps endtoendweb / GiveNTakeAPI / Pipelines

**GiveNTakeAPI**

- Overview
- Boards
- Repos
- Pipelines**
- Builds
- Releases\*
- Library
- Task groups
- Deployment groups
- Test Plans
- Artifacts

Project settings



Choose a template

Choose a template that builds your kind of app. Don't worry if it's not an exact match; you can add and customize the tasks later.

Select a template

Or start with an [Empty job](#)

Search

Others

- Ant**  
Build and test a Java project with Apache Ant.
- ASP.NET Core**  
Build and test an ASP.NET Core web application. [Apply](#)
- ASP.NET Core (.NET Framework)**  
Build an ASP.NET Core web application that targets the full .NET Framework.
- ASP.NET with containers**  
Build and push an ASP.NET application with container support.
- Azure Cloud Services**  
Build, package, test, and deploy an Azure Cloud Service.
- Azure Kubernetes Service**  
Build a container image, push it to the specified container registry. After image push is complete, package the Helm chart and publish it as an artifact.
- Azure Service Fabric application**  
Build and package an Azure Service Fabric application.
- Azure Service Fabric application with Docker support**

Azure DevOps endtoendweb / GiveNTakeAPI / Pipelines

**GiveNTakeAPI**

- Overview
- Boards
- Repos
- Pipelines**
- Builds
- Releases\*
- Library
- Task groups
- Deployment groups
- Test Plans
- Artifacts

Project settings

GiveNTakeAPI-ASP.NET Core-CI

Tasks Variables Triggers Options Retention History | Save & queue Discard Summary Queue

**Pipeline** Build pipeline

Get sources  
tamirdresher/GiveNTake master

Agent job 1  
Run on agent

- Restore .NET Core
- Build .NET Core
- Test .NET Core
- Publish .NET Core
- Publish Artifact Publish Build Artifacts

Name \*  
GiveNTakeAPI-ASP.NET Core-CI

Agent pool \* | Pool information | Manage  
Hosted VS2017

Parameters | Unlink all

Project(s) to restore and build  
\*\*/\*.csproj

Project(s) to test  
\*\*/[T]ests/\*.csproj

View YAML



Azure DevOps interface showing the configuration of a pipeline task named "Publish" under the "Agent job 1" in the "GiveNTakeAPI-ASP.NET Core-CI" pipeline.

**Navigation:** Overview, Boards, Repos, Pipelines, Builds, Releases\*, Library, Task groups, Deployment groups, Test Plans, Artifacts, Project settings.

**Pipeline:** GiveNTakeAPI-ASP.NET Core-CI

**Tasks:** Get sources, Agent job 1 (Run on agent), Restore (NET Core), Build (NET Core), Test (NET Core), Publish (NET Core), Publish Artifact (Publish Build Artifacts).

**Task Configuration (Publish):**

- Version: 2.\*
- Display name: Publish
- Command: publish
- Publish Web Projects
- Path to project(s): \*\*/\*.csproj
- Arguments: --configuration \$(BuildConfiguration) --output \$(build.artifactstagingdirectory)
- Zip Published Projects
- Add project name to publish path
- Advanced: [Expanded]
- Control Options: [Expanded]

## Queue build for GiveNTakeAPI-ASP.NET Core-CI

Agent pool

Hosted VS2017

Branch

master

Commit

Variables Demands

BuildConfiguration	Release
BuildPlatform	any cpu
system.debug	false

+ Add

Queue Cancel

Azure DevOps endtoendweb / GiveNTakeAPI / Pipelines

**GiveNTakeAPI**

Overview Boards Repos Pipelines Builds Releases\* Library Task groups Deployment groups Test Plans Artifacts Project settings

**GiveNTakeAPI-ASP.NET Core-CI** 20180913.2

tamirdresher/GiveNTake · azure-pipelines · 38f2390: Set up CI with Azure Pipelines · Manual build

Add a tag

Logs Summary Tests Release Edit Queue ...

**phase1 Job** Started: 9/13/2018, 9:58:38 PM

Pool: Hosted Ubuntu 1604 · Agent: Hosted Agent 1:29,747

✓ Prepare job · succeeded	0.000
✓ Initialize Agent · succeeded	2.083
✓ Initialize job · succeeded	0.617
✓ Get sources · succeeded	5.437
✓ dotnet build Release · succeeded	1:21.003
✓ Post-job: Get sources · succeeded	0.683

Azure DevOps endtoendweb / GiveNTakeAPI / Pipelines / Releases\*

GiveNTakeAPI +

- Overview
- Boards
- Repos
- Pipelines
- Builds
- Releases\*
- Library
- Task groups
- Deployment groups
- Test Plans
- Artifacts

Project settings <<

## No release pipelines found

Automate your release process in a few easy steps with a new pipeline

[New pipeline](#)

Azure DevOps endtoendweb / GiveNTakeAPI / Pipelines

GiveNTakeAPI +

All pipelines > New release pipeline

Pipeline Tasks Variables Retention Options History

Artifacts | + Add

Stages | + Add

+ Add an artifact

Schedule not set

Stage 1  
Select a template

Select a template

Or start with an [Empty job](#)

Featured

- Azure App Service deployment**  
Deploy your application to Azure App Service. Choose from Web App on Windows, Linux, containers, Function Apps, or WebJobs. [Apply](#)
- Deploy a Java app to Azure App Service**  
Deploy a Java application to an Azure Web App.
- Deploy a Node.js app to Azure App Service**  
Deploy a Node.js application to an Azure Web App.
- Deploy a PHP app to Azure App Service and Azure Database for MySQL**  
Deploy a PHP application to an Azure Web App and database to Azure Database for MySQL.
- Deploy a Python app to Azure App Service and Azure database for MySQL**  
Deploy a Python Django, Bottle, or Flask application to an Azure Web App and database to Azure Database for MySQL.
- Deploy to a Kubernetes cluster**  
Deploy, configure, update your containerized applications to a Kubernetes cluster.
- IIS website and SQL database deployment**  
Deployment Group: Deploy ASP.NET or ASP.NET Core web applications to an IIS Website and SQL database on physical

---

Artifacts | + Add


+ Add an artifact


 Schedule not set


✕


## Add an artifact

Source type

  
✓ Build

  
Azure Repos ...

  
GitHub

  
Team Found...

[4 more artifact types](#) ▾

Project \* ⓘ

GiveNTakeAPI▾

Source (build pipeline) \* ⓘ

GiveNTakeAPI-ASP.NET Core-CI▾

Default version \* ⓘ

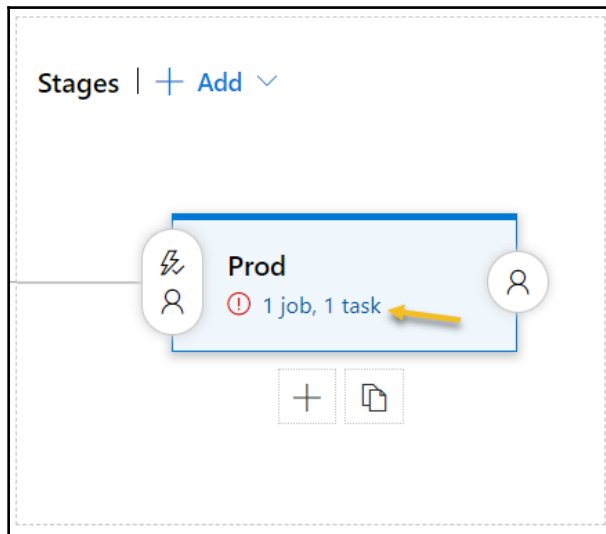
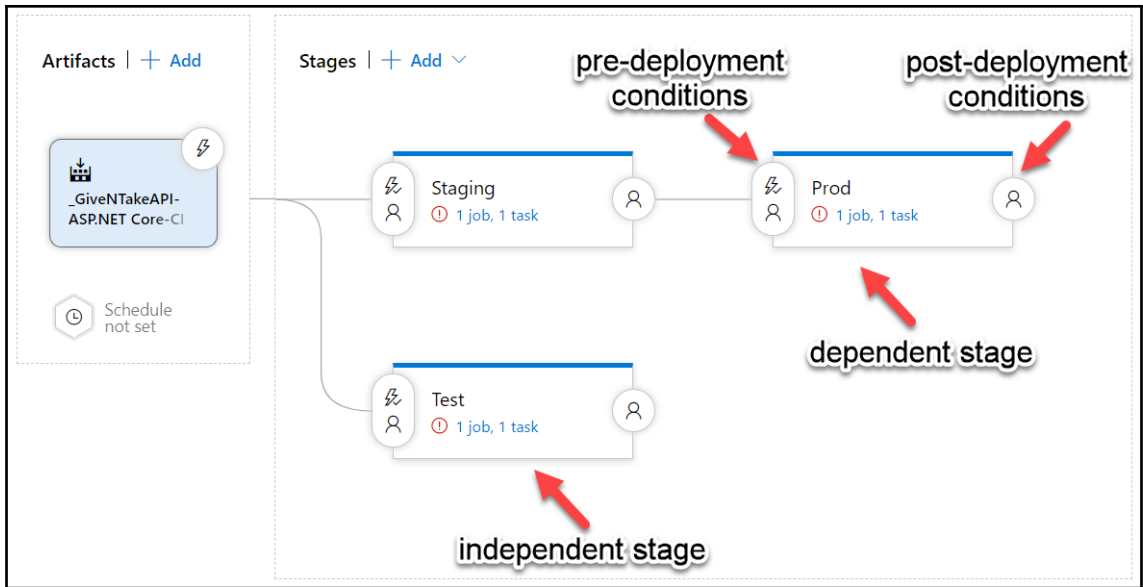
Latest▾

Source alias ⓘ

\_GiveNTakeAPI-ASP.NET Core-CI▾

ⓘ The artifacts published by each version will be available for deployment in release pipelines. The latest successful build of **GiveNTakeAPI-ASP.NET Core-CI** published the following artifacts:  
***drop.***

Add



The screenshot shows the 'New release pipeline' configuration page in Azure DevOps. The left sidebar contains navigation options: Overview, Boards, Repos, Pipelines, Builds, Releases\*, Library, Task groups, Deployment groups, Test Plans, and Artifacts. The main area is titled 'Prod' and shows a 'Run on agent' task named 'Deploy Azure App Service' with a sub-task 'Azure App Service Deploy'. The right-hand configuration panel includes fields for 'Version' (3.\*), 'Display name' (Deploy Azure App Service), 'Azure subscription' (with a 'Manage' link), 'App type' (Web App), 'App Service name' (GiveNTakeAPI), and 'Package or folder' (\$\$(System.DefaultWorkingDirectory)/\*\*/\*.\*.zip). There is also a 'Deploy to slot' checkbox and a 'Virtual application' field.

The screenshot shows the 'Releases\*' page in Azure DevOps. The left sidebar is the same as in the previous image. The main area is titled 'Release pipelines' and shows a search bar, 'No favorites yet', and a 'Recent' section with one item: 'GiveNTake API Release' (No deployments yet). The main content area displays a message: 'No releases found. You can create a new release manually or setup triggers to create it automatically.' Below this message is a 'Create a release' button, which is highlighted with a red arrow.

✔ Release **Release-1** has been created

### Release

**Manually triggered**

by E endtoendweb  
9/14/2018 3:35 PM

---

Artifacts

[\\_GiveNTakeAPI-ASP.NE...  
20180914.2](#)

master

### Stages

**Prod**

✓ **Succeeded**

on 9/14/2018 3:36 PM

🏠 ... > Everyday-Market-NG-CI

Tasks Variables Triggers Options Retention History | Save & queue Discard Summary Queue ...

Pipeline

Build pipeline

---

Get sources

repository master

---

Agent job 1

Run on agent

➕

1 click to add a new task

Add tasks | Refresh

2 search for 'npm'

**npm**

Install and publish npm packages, or run an npm command. Supports npms.com and authenticated registries like Package Management.

Add

**npm Authenticate (for task runners)**

Don't use this task if you're also using the npm task. Provides npm credentials to an .npmrc file in your repository for the scope of the build. This enables npm task runners like Gulp and Grunt to authenticate with private registries.

3 add the npm task



---

npm ⓘ [Link settings](#) [View YAML](#) [Remove](#)

Version  ▾

Display name \*

Command \* ⓘ  ▾

Working folder with package.json ⓘ

Custom registries and authentication ▾

Advanced ▾

Control Options ▾

npm ⓘ [Link settings](#) [View YAML](#) [Remove](#)

Version  ▾

Display name \*

Command \* ⓘ  ▾

Working folder with package.json ⓘ

Command and arguments \* ⓘ

Custom registries and authentication ▾

Control Options ▾

Command Line ⓘ [Link settings](#) [View YAML](#) [Remove](#)

Version

Display name \*

Script \* ⓘ

```
cd $(System.DefaultWorkingDirectory)\everyday-market\everyday-market-ng
ng build --prod --output-path="$(Build.ArtifactStagingDirectory)\dist"
```

Advanced ▾

Control Options ▾

Environment Variables ▾

Everyday-Market-NG-CI

Tasks Variables Triggers Options Retention History | Save & queue ▾ Discard Summary Queue ...

Pipeline Build pipeline ...

Get sources repository master

Agent job 1 Run on agent +

- npm install npm
- install Angular CLI npm
- Command Line Script Command Line
- Publish Artifact: dist Publish Build Artifacts**

Publish Build Artifacts ⓘ [Link settings](#) [View YAML](#) [Remove](#)

Version

Display name \*

Path to publish \* ⓘ

Artifact name \* ⓘ

Artifact publish location \* ⓘ

Control Options ▾

Everyday-Market-NG-CI

Tasks Variables **Triggers** Options Retention History | Save & queue Discard Summary Queue

Continuous integration

**repository**  
Enabled

Scheduled + Add  
No builds scheduled

Build completion + Add  
Build when another build completes

**repository**

Enable continuous integration

Polling interval (seconds)  
60

Branch filters

Type: Include Branch specification: master + Add

### Add an artifact

Source type

Build  Azure Repos ...  GitHub  Team Found...

[4 more artifact types](#)

Project \*

Source (build pipeline) \*

Default version \*

Source alias

*The artifacts published by each version will be available for deployment in release pipelines. The latest successful build of **Everyday-Market-NG-CI** published the following artifacts: **dist**.*

**Add**

All pipelines > New release pipeline Save + Release View releases ...

Pipeline **Tasks** Variables Retention Options History

**Prod**  
Deployment process

**Run on agent**  
Run on agent

**Deploy Azure App Service**  
Azure App Service Deploy

App type \*  
Web App

App Service name \*  
giventake

Deploy to slot

Virtual application

Package or folder \*  
\$(System.DefaultWorkingDirectory)/Everyday-Market-NG-CI-dist/dist

File Transforms & Variable Substitution Options

Additional Deployment Options

Post Deployment Action

Application and Configuration Settings

Output

App Service URL



---

## Continuous deployment trigger

Build: Everyday-Market-NG-CI-dist

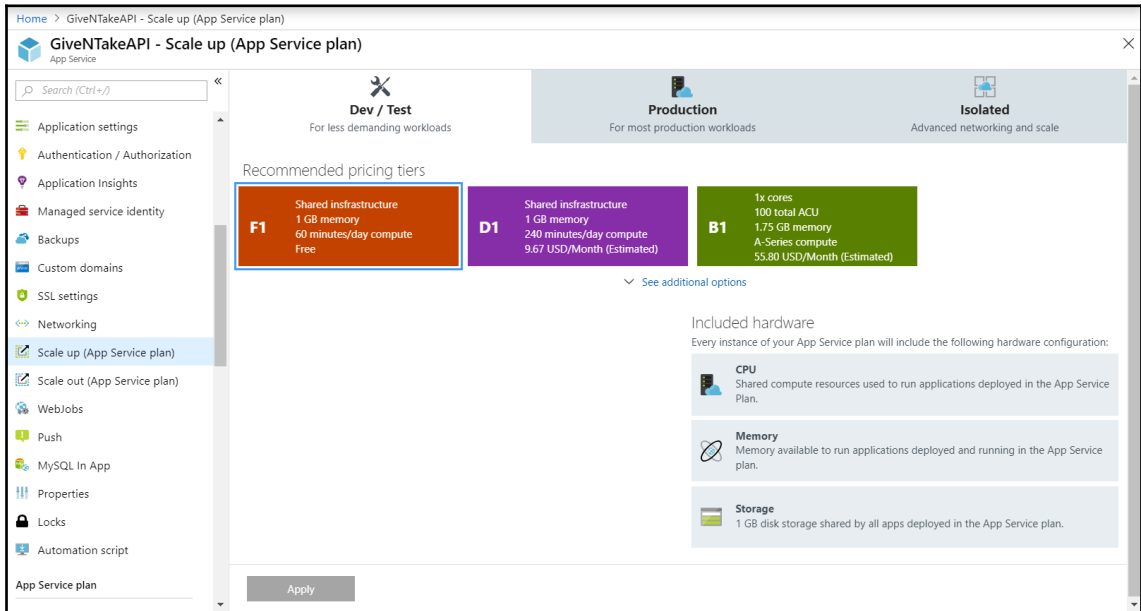
Enabled

Creates a release every time a new build is available.

### Build branch filters ⓘ

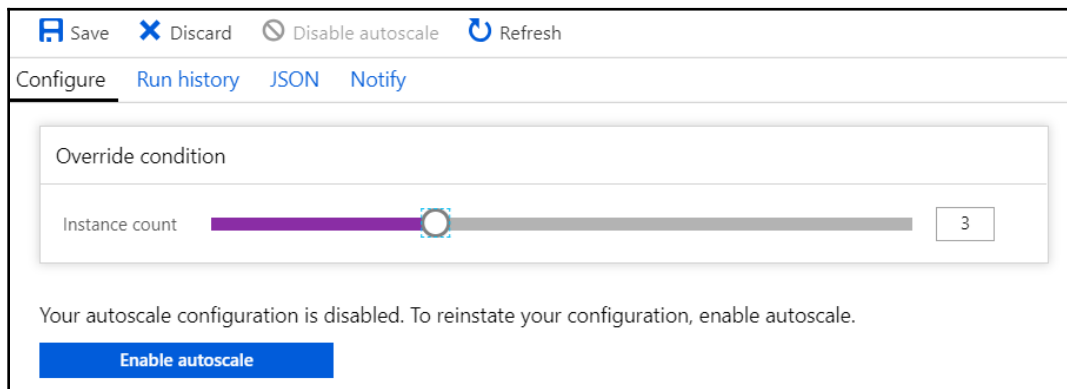
Type	Build branch	Build tags	
Include ▾	master		🗑️
+ Add   ▾			

# Chapter 16: Taking Advantage of Cloud Services



## Errors

- Autoscale is currently not available for this resource; The resource pricing tier might have been changed, and autoscale is not supported in the new pricing tier.






---

\* Autoscale setting name  ✓

Resource group  ▾


---

**Default** Auto created scale condition  

Delete warning  The very last or default recurrence rule cannot be deleted. Instead, you can disable autoscale to turn off autoscale.




Scale mode  Scale based on a metric  Scale to a specific instance count

Scale out and scale in your instances based on metric. For example: 'Add a rule that increases instance count by 1 when CPU percentage is above 70%'

Rules  It is recommended to have at least one scale in rule

[+ Add a rule](#)

Instance limits

Minimum 	Maximum 	Default 
<input type="text" value="1"/>	<input type="text" value="5"/> ✓	<input type="text" value="1"/>

Schedule **This scale condition is executed when none of the other scale condition(s) match**

### Scale rule ✕

---



#### Criteria

- \* Time aggregation ⓘ
- \* Metric name  
  
1 minute time grain
- \* Time grain statistic ⓘ
- \* Operator
- \* Threshold
- \* Duration (in minutes) ⓘ

#### Action

- \* Operation
- \* Instance count
- \* Cool down (minutes) ⓘ



**Default** Auto created scale condition  

Scale mode  Scale based on a metric  Scale to a specific instance count

---

Scale out

When ServicePlan1753cb... (Average) CpuPercentage > 70 Increase instance count by 1

---

Scale in



When ServicePlan1753cb... (Average) CpuPercentage < 20 Decrease instance count by 1

---


[+ Add a rule](#)

Instance limits Minimum  Maximum  Default


Schedule **This scale condition is executed when none of the other scale condition(s) match**


**Black Friday**  


Scale mode  Scale based on a metric  Scale to a specific instance count

Instance count  

Schedule  Specify start/end dates  Repeat specific days

Timezone  

Start date  

End date  

**Web App** □ ×  
Create

\* App name  
GiveNTakeAPI ✓  
.azurewebsites.net

\* Subscription  
Pay-as-you-go

\* Resource Group ⓘ  
 Create new  Use existing  
GiveNTake

\* OS **Windows** Linux Docker

\* App Service plan/Location >  
ServicePlan32691d8a-9df0(Centr...

Application Insights ⓘ **On** Off

\* Application Insights Location ⓘ  
East US

💡 Application Insights



## Application Insights

Link your application to Application Insights

Select existing resource

Search...

 giventake GiveNTake1-rg East US

Create new resource

\* New resource name GiveAndTakeAPI \* Location East US

Instrument your application

\* Runtime/Framework ASP.NET Core

Code level diagnostics

Identify code that slowed down your web app and debug runtime exceptions with local variables

On  Off

Home > GiveNTakeAPI - Properties

### GiveNTakeAPI - Properties

Application Insights


Search (Ctrl+ /)


- User Flows
- Retention
- Impact
- Cohorts
- Configure
  - Properties**
  - Alerts
  - Smart Detection settings
  - Usage and estimated costs
  - Continuous export
  - Performance Testing
  - API Access
  - Work Items
- Settings
  - Locks
  - Automation script


NAME  
GiveNTakeAPI


TYPE  
ASP.NET


LOCATION  
East US

INSTRUMENTATION KEY  
 

RESOURCE GROUP NAME  
   
[Change resource group](#)

SUBSCRIPTION NAME  
   
[Change subscription](#)

SUBSCRIPTION ID  
 



Home > GiveNTakeAPI - Application settings

## GiveNTakeAPI - Application settings

App Service

Search (Ctrl+/) Save Discard

**Settings**

- Application settings
- Authentication / Authorization
- Application Insights
- Managed service identity
- Backups
- Custom domains
- SSL settings
- Networking
- Scale up (App Service plan)
- Scale out (App Service plan)
- WebJobs
- Push

**Application settings**


APP SETTING NAME	VALUE	SLOT SETTING	DELETE
APPINSIGHTS_INSTRUMENTATIONKEY	237b8ff5-eb88-42af-85b1-3347a2d958bb	<input type="checkbox"/>	✕
MSDEPLOY_RENAME_LOCKED_FILES	1	<input type="checkbox"/>	✕
WEBSITE_HTTPLOGGING_RETENTION_DAYS	5	<input type="checkbox"/>	✕

+ Add new setting

**Connection strings**

CONNECTION STRING NAME	VALUE	TYPE	SLOT SETTING	DELETE
GiveNTakeDB	Hidden value. Click to show.	SQLAzure	<input type="checkbox"/>	✕

+ Add new connection string

 Application Insights

Home > App Services > GiveNTakeAPI - Application Insights > GiveNTakeAPI

## GiveNTakeAPI

Application Insights

Search (Ctrl+/) Application Dashboard Getting started Search Analytics Refresh Feedback Favorites Rename Delete

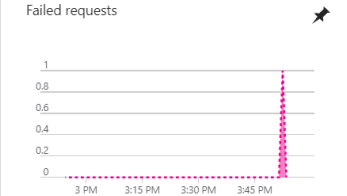
**Access control (IAM)**

- Tags
- Diagnose and solve problems

**INVESTIGATE**

- Application map
- Smart Detection
- Live Metrics Stream
- Metrics
- Search
- Availability
- Failures
- Performance
- Servers
- Browser

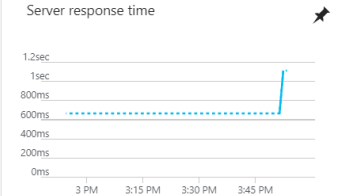
**Failed requests**



1

FAILED REQUESTS (SUM) GIVENTAKEAPI

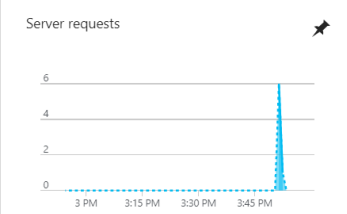
**Server response time**



730.3 ms

SERVER RESPONSE TIME (AVG) GIVENTAKEAPI

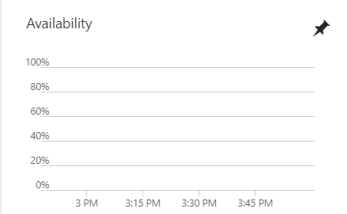
**Server requests**



7

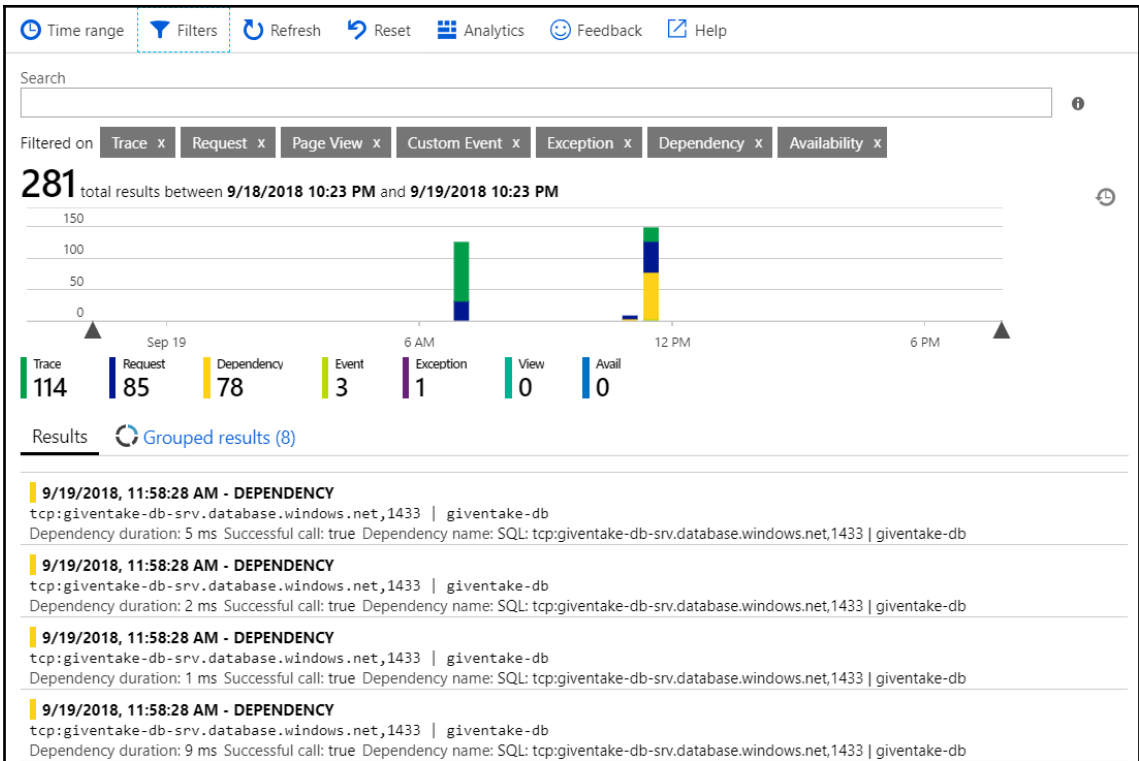
SERVER REQUESTS (SUM) GIVENTAKEAPI

**Availability**



--

AVAILABILITY (AVG) GIVENTAKEAPI



**Filter** ✕

**✕ Clear filters**

---

**Event Types** ℹ

<input checked="" type="checkbox"/>	Trace	114
<input checked="" type="checkbox"/>	Request	85
<input checked="" type="checkbox"/>	Page View	0
<input checked="" type="checkbox"/>	Custom Event	3
<input checked="" type="checkbox"/>	Exception	1
<input checked="" type="checkbox"/>	Dependency	78
<input checked="" type="checkbox"/>	Availability	0

**Properties**

*Filter Properties...*

- ▶ `_MS.ProcessedByMetricExtractors`
- ▶ `{OriginalFormat}`
- ▼ `ActionName`
  - `<undefined>` 277
  - `GiveNTake.Controllers.ProductsController.Sear...` 4

Search results [Learn more](#) Feedback

### End-to-end transaction

Operation ID: 8d577bb0-474a0a982fcd7b9

Request (incoming)
  Dependency (outgoing)
  Exception
  Profiler trace
  Debug snapshot

EVENT	RES.	DURATION	0100 MS	200 MS	300 MS	400 MS
giventakeapi GET Products/SearchByCategory [ca 200		453.9 ms	█			
giventake-db-srv giventake-db		7 ms		█		
giventake-db-srv giventake-db		2 ms			█	

**Dependency Properties** Show all

Event time: 9/19/2018, 11:28:53 AM

Dependency type: SQL

Dependency call status: True

Dependency duration: 7 ms

Remote dependency name: SQL: tcp:giventake-db-srv.database.windows.net,1433 | giventake-db

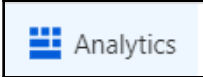
**Custom Data**

AspNetCoreEnvironment: Production

**Command**

```
SELECT [p].[ProductId], [p].[CategoryId], [p].[CityId], [p].[Description]
FROM [Products] AS [p]
LEFT JOIN [Cities] AS [p.City] ON [p].[CityId] = [p.City].[CityId]
INNER JOIN [AspNetUsers] AS [p.Owner] ON [p].[OwnerId] = [p.Owner].[Id]
INNER JOIN [Categories] AS [p.Category] ON [p].[CategoryId] = [p.Category].[Id]
LEFT JOIN [Categories] AS [p.Category.ParentCategory] ON [p.Category].[ParentCategoryId] = [p.ParentCategory].[CategoryId]
```

3 All 0 Traces 0 Events View all telemetry



Home > GiveNTakeAPI - Application Insights > GiveNTakeAPI - Search > Logs

### Logs

GiveNTakeAPI

New Query 1\* Help Settings Query explorer

Time range: Set in query
 Save Copy link Export Set alert Pin

Schema Filter (preview)

Showing top 10 values for each facet

- itemType (5)
  - trace (114)
  - request (85)
  - dependency (78)
  - customEvent (3)
  - exception (1)

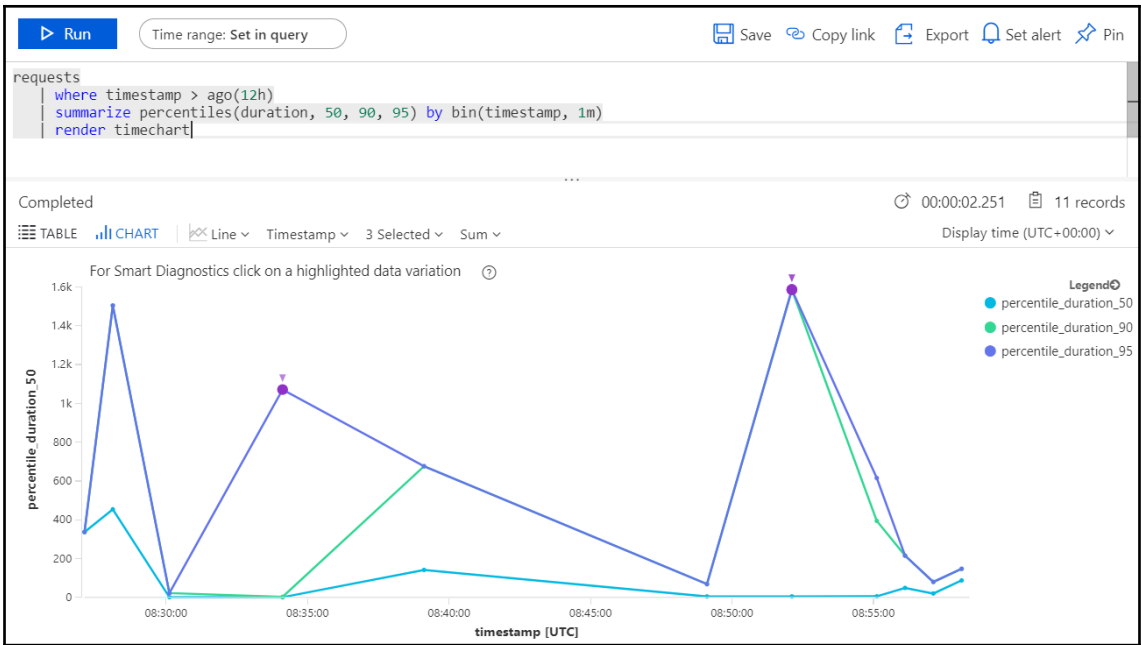
```
union (traces
  where timestamp >= datetime(2018-09-18T19:22:59.999Z) and timestamp < datetime(2018-09-19T19:23:00.001Z)), (requests
  where timestamp >= datetime(2018-09-18T19:22:59.999Z) and timestamp < datetime(2018-09-19T19:23:00.001Z)), (pageViews
  where timestamp >= datetime(2018-09-18T19:22:59.999Z) and timestamp < datetime(2018-09-19T19:23:00.001Z)), (dependencies
  where timestamp >= datetime(2018-09-18T19:22:59.999Z) and timestamp < datetime(2018-09-19T19:23:00.001Z)), (customEvents
  where timestamp >= datetime(2018-09-18T19:22:59.999Z) and timestamp < datetime(2018-09-19T19:23:00.001Z)), (availabilityResults
  where timestamp >= datetime(2018-09-18T19:22:59.999Z) and timestamp < datetime(2018-09-19T19:23:00.001Z)), (exceptions
  where timestamp >= datetime(2018-09-18T19:22:59.999Z) and timestamp < datetime(2018-09-19T19:23:00.001Z))
  extend itemType = iif(itemType == 'availabilityResult',itemType,iif(itemType == 'customEvent',itemType,iif(itemType == 'dependency',itemType,iif(itemType == 'pageView',itemType,iif(itemType == 'request',itemType,iif(itemType == 'trace',itemType,iif(itemType == 'exception',itemType,''))))))))
```

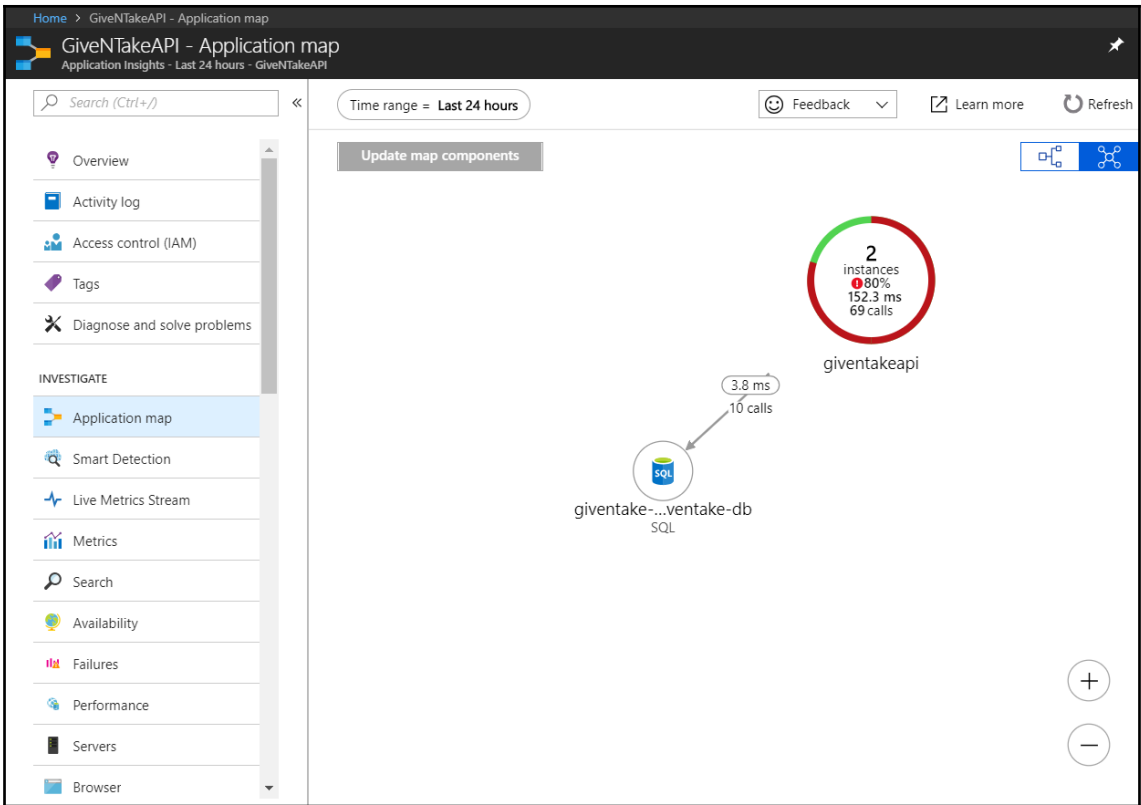
Completed 00:00:01.979 101 records  
Display time (UTC+00:00)

timestamp [UTC]	message	severityLevel	itemType	customDimensions
> 2018-09-19T08:58:28.156			dependency	{ "_MS.ProcessedByMetricExtractors":...
> 2018-09-19T08:58:28.149			dependency	{ "_MS.ProcessedByMetricExtractors":...
> 2018-09-19T08:58:28.136			dependency	{ "_MS.ProcessedByMetricExtractors":...
> 2018-09-19T08:58:28.117			dependency	{ "_MS.ProcessedByMetricExtractors":...
> 2018-09-19T08:58:28.088			dependency	{ "_MS.ProcessedByMetricExtractors":...
> 2018-09-19T08:58:28.016			request	{ "_MS.ProcessedByMetricExtractors":...

Apply & Run Clear Page 1 of 3 50 items per page 1 - 50 of 101 items








Home > GiveNTakeAPI - Deployment slots

## GiveNTakeAPI - Deployment slots

App Service

Search (Ctrl+/) << + Add Slot  Swap

NAME	STATUS	APP SERVICE PLAN
giventakeapi-staging	Running	GiveNTake

Overview  
Activity log  
Access control (IAM)  
Tags  
Diagnose and solve problems








Deployment


- Quickstart
- Deployment credentials
- Deployment slots
- Deployment options
- Deployment Center (Preview)

Home > GiveNTakeAPI - Deployment slots > Staging


## Staging


Web App


Search (Ctrl+/) <<  Browse  Stop  Swap  Restart  Delete  Get publish profile  Reset publish profile

 Click here to access our Quickstart guide for deploying code to your app →

Resource group (change) <a href="#">GiveNTake</a>	URL <a href="https://giventakeapi-staging.azurewebsites.net">https://giventakeapi-staging.azurewebsites.net</a>
Status Running	App Service plan/pricing tier <a href="#">GiveNTake (Standard: 1 Small)</a>
Location East US	FTP/deployment username No FTP/deployment user set
Subscription (change) <a href="#">Pay-as-you-go</a>	FTP hostname ftp://waws-prod-blu-099.ftp.azurewebsites.windows.net
Subscription ID bd51f004-5a88-4282-bc5c-ec1518068dfb	FTPS hostname ftps://waws-prod-blu-099.ftp.azurewebsites.windows.net
Tags (change) <a href="#">Click here to add tags</a>	

 **Diagnose and solve problems**  
Our self-service diagnostic and troubleshooting experience helps you identify and resolve issues with your web app.

 **Application Insights**  
Application Insights helps you detect and diagnose quality issues in your apps, and helps you understand what your users actually do with it.

 **App Service Advisor**  
App Service Advisor provides insights for improving app experience on the App Service platform. Recommendations are sorted by freshness, priority and impact to your app.

# App Service

Host your web and mobile applications, REST APIs, and more in Azure

Microsoft account  
endtoendweb@outlook.com

Subscription  
Pay-as-you-go

View  
Resource Group

Search

- GiveNTake
  - GiveNTakeAPI
    - Deployment Slots
      - Staging

OK Cancel

All pipelines > GiveNTake API Release Save + Release View releases ...

Pipeline **Tasks** Variables Retention Options History

**Staging**  
Deployment process

**Run on agent**  
Run on agent

**Deploy Azure App Service**  
Azure App Service Deploy

**Azure App Service Deploy** Remove

Version

Display name \*

Azure subscription \* [Manage](#)  
Pay-as-you-go ( )

Scoped to subscription 'Pay-as-you-go'

App type \* [Web App](#)

App Service name \* [GiveNTakeAPI](#)

Deploy to slot

Resource group \*

Slot \*



### Swap □ ×

Choose which slots to swap

Swap type

Swap ▼

Source

Staging ▼

Destination

production ▼

---

Preview Changes >

5 warnings, 2 other messages

---




OK

**Application settings**

APP SETTING NAME	VALUE	SLOT SETTING	DELETE
APPINSIGHTS_INSTRUMENTATIONKEY	237b8ff5-eb88-42af-85b1-3347d2d958bb	<input checked="" type="checkbox"/>	✕
MSDEPLOY_RENAME_LOCKED_FILES	1	<input type="checkbox"/>	✕
WEBSITE_HTTPLOGGING_RETENTION_DAYS	5	<input type="checkbox"/>	✕

Testing in production

---

 Save  Discard  Add Slot

---

Static Routing ⓘ

	TRAFFIC %
DarkUI	10%
LightUI	10%
<input type="text" value="Choose deployment slot"/> <input type="text" value="Traffic %"/>	
production	80%