

MTIT ASSIGNMENT 03

Group ID : MTIT-020

OVERVIEW

- INTRODUCTION
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- DEFINITION AND ELABORATION ON THE MICROSERVICES
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- SCREEN CAPTURES OF NATIVE SWAGGER URL OUTCOMES AND THE SAME WHEN WE ACCESS THEM USING THE API GATEWAY

INDIVIDUAL CONTRIBUTION

Registration Number	Student Name	Contribution
IT20029968	Athukorala Y.J	Customer Management
IT19192024	Jayawardhana E.H.K	Inventory Management
IT20147846	Thennakoon S.U.	Order Management
IT20051020	Shaminda W.G.T	Product Management

INTRODUCTION

- We have decided to use Book Store Management System as our business domain.
- There are four sub domains as microservices.
 - Customer Management
 - Inventory Management
 - Order Management
 - Product Management



01

**DEFINITION AND
ELABORATION ON THE
MICROSERVICES**

WHAT IS MICROSERVICE ?

- A microservice architecture is a software architectural style in which an application is constructed as a collection of loosely connected, independently deployable services that communicate with one another via APIs.

MICROSERVICE CUSTOMER MANAGEMENT

IT20029968

- Customer management microservice is a component which is responsible for manage customer data such as name, address, phone by creating new records, Reading existing records, Updating existing records and Deleting them.

MICROSERVICE INVENTORY MANAGEMENT

IT19192024

- Inventory management microservice is a component which is responsible for manage inventory data by creating new records, Reading existing records, Updating existing records and Deleting them.

MICROSERVICE ORDER MANAGEMENT

IT20147846

- Order management microservice is a component which is responsible for manage order data by creating new records, Reading existing records, Updating existing records and Deleting them.

MICROSERVICE PRODUCT MANAGEMENT

IT20051020

- Product management microservice is a component which is responsible for manage product data by creating new records, Reading existing records, Updating existing records and Deleting them.

WHAT IS API GATEWAY ?

- An API Gateway is a layer that manages API requests between client apps and backend services.
- It serves as an entry point for API requests and manages a number of functions including routing, rate limitation, authentication, Logging and Monitoring and caching.
- Customers can access multiple backend services using a standardized interface provided by API gateways, thereby making system maintenance and scalability easier.
- OCELOT and Azure API Management are two examples of products used in API Gateway.



02

USAGE OF OCELOT API GATEWAY

Routing : Ocelot allows you to define routing rules that guide incoming API requests to the appropriate microservice endpoints based on parameters such as URL or HTTP verb, resulting in a single entry point for API requests and easy routing to multiple microservices depending on the requested functionality.

Handles authentication and authorization : Ocelot API Gateway can handle microservice authentication and authorization. This means you may secure your microservices behind the gateway and restrict access to only authorized users.

Enables load balancing: Load balancing for your microservices can be enabled using Ocelot API Gateway. This implies that traffic may be distributed uniformly throughout your microservices, which can help to prevent any one microservice from becoming overloaded.

Caching : Ocelot enables the configuration of caching for API responds which improves microservice performance by caching frequently requested data and reduces the workload on backend systems, which leads to lower latency and faster response times.

Protocol Transformation : Ocelot supports protocol transformation, which allows for the conversion of incoming request data between one protocol to another, enabling for the unified implementation of several API protocols, like transforming RESTful request types to GraphQL or gRPC requests.

Monitoring and Logging : Ocelot has logging and monitoring facilities that can monitor and analyze the API gateway's and underlying microservices' performance and usage, assisting in issue detection, resolution, usage pattern tracking, and performance insights.



03

**AVOID HAVING
MULTIPLE PORTS WITH
THE GATEWAY THAT
IMPLEMENTED**

-
- In a microservices architecture, an API gateway such as Ocelot provides a consistent entry point for external queries.
 - You may create routing rules for incoming requests in Ocelot, making it easier to govern external access to your microservices.
 - You may simplify your microservices architecture and focus on delivering value to your clients by using an API gateway like Ocelot.



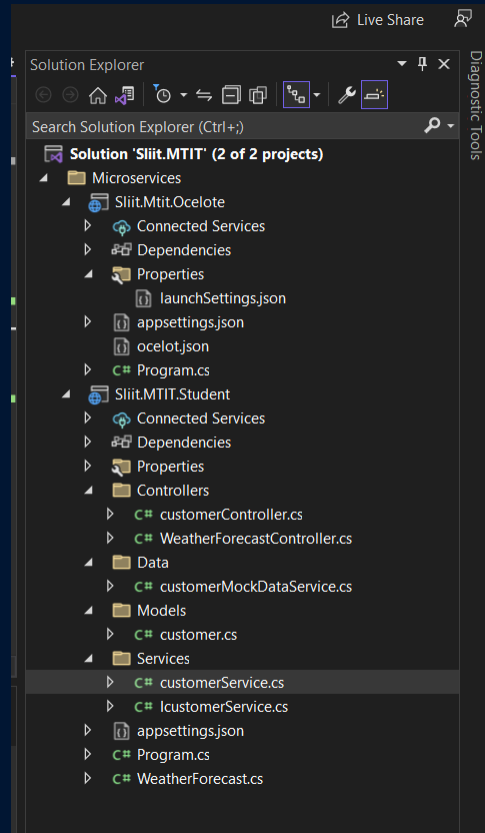
04

SCREEN CAPTURES OF INDIVIDUAL COMPONENTS

FOLDER STRUCTURE

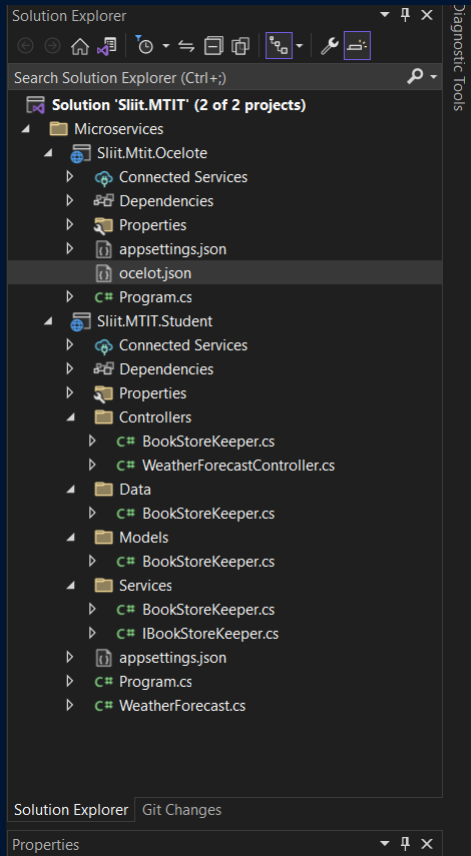
CUSTOMER MANAGEMENT

IT20029968



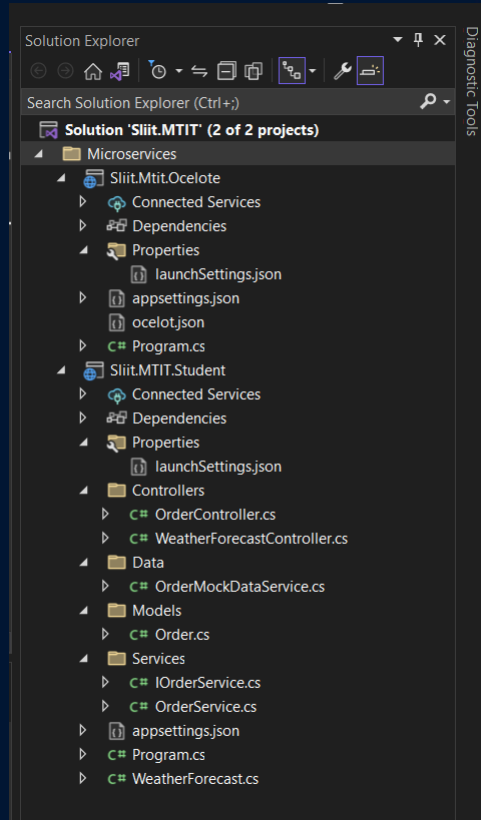
INVENTORY MANAGEMENT

IT19192024



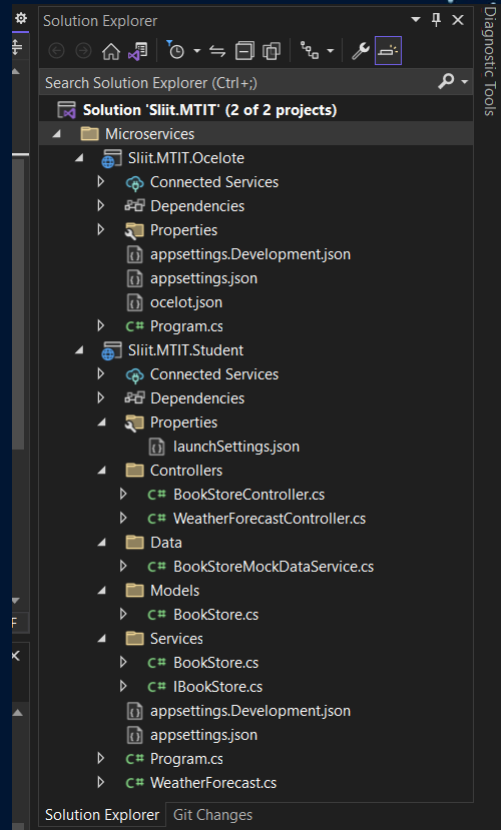
ORDER MANAGEMENT

IT20147846



PRODUCT MANAGEMENT

IT20051020






SWAGGER URL OUTCOMES

CUSTOMER MANAGEMENT

IT20029968

GET METHOD

Swagger
by OAS3

Select a definitionSliit.MTIT.Student v1

Sliit.MTIT.Student ^{1.0} OAS3

<http://localhost:5174/swagger/v1/swagger.json>

customer

GET

/api/customer

Parameters

No parameters

ExecuteClear

Responses

Curl

```
curl -X GET \
  'http://localhost:5174/api/customer' \
  -H 'accept: */*'
```

Request URL

```
http://localhost:5174/api/customer
```

Server response

Code	Details
200	<div>Response body</div> <pre>{ "id": 1, "name": "John", "address": "123 Main St", "mobile": 20 }, { "id": 2, "name": "Mary", "address": "456 Second Ave", "mobile": 22 }, { "id": 3, "name": "Tom", "address": "789 Third St", "mobile": 21 }, { "id": 4, "name": "Kate", "address": "321 Fourth Ave", "mobile": 23 }, { "id": 5, </pre> <div>Download</div>


Response headers

```
content-type: application/json; charset=utf-8
date: Wed, 19 Apr 2023 14:09:25 GMT
server: Kestrel
transfer-encoding: chunked
```

Responses

Code	Description	Links
200	Success	No links

POST METHOD

 **Swagger**
OpenAPI 2.0 / 3.0

Select definition **SLIIT.MTIT.Student v1**

SLIIT.MTIT.Student 1.0 OAS3
<http://localhost:5174/swagger/v1/swagger.json>

customer

GET /api/customer

POST /api/customer

Parameters Cancel Reset

No parameters

Request body application/json

```
{
  "id": 6,
  "name": "yuthira",
  "address": "panadura",
  "mobile": "765023211"
}
```

Execute Clear

Responses

Curl

```
curl -X POST \
  "http://localhost:5174/api/customer" \
  -H "accept: */*" \
  -H "Content-Type: application/json" \
  -d '{
    "id": 6,
    "name": "yuthira",
    "address": "panadura",
    "mobile": "765023211"
  }'
```

Request URL

`http://localhost:5174/api/customer`

Server response

Code	Details
200	<div>Response body</div> <pre>{ "id": 6, "name": "yuthira", "address": "panadura", "mobile": "765023211" }</pre> <div>Download</div>

Response headers


```
content-type: application/json; charset=utf-8
date: Mon, 19 Apr 2023 14:10:05 GMT
server: Fastify
transfer-encoding: chunked
```

Responses

Code	Description	Links
200	Success	No links

 **SLIIT**
FACULTY OF COMPUTING

PUT METHOD

 Swagger

Select a definitionSliit.MTIT.Student v1

Sliit.MTIT.Student ^{1.0} OAS3

<http://localhost:5174/swagger/v1/swagger.json>

customer

GET /api/customer

POST /api/customer

PUT /api/customer

Parameters

CancelReset

No parameters

Request body

application/json

```
{  "id": 6,  "name": "yashica",  "address": "yashica",  "mobile": 745966328}
```

ExecuteClear

Responses

Curl

```
curl -X 'PUT' \  http://localhost:5174/api/customer/ \  -H 'accept: */*' \  -H 'Content-Type: application/json' \  -d '{  "id": 6,  "name": "yashica",  "address": "yashica",  "mobile": 745966328  }'
```

Request URL

http://localhost:5174/api/customer

Server response

CodeDetails

200

Response body

```
{  "id": 6,  "name": "yashica",  "address": "yashica",  "mobile": 745966328  }
```

Download

Response headers

```
Content-Type: application/json; charset=utf-8  Date: Wed, 19 Apr 2023 14:18:41 GMT  Server: Kestrel  Transfer-Encoding: chunked
```

Responses


CodeDescriptionLinks

200

Success

No links

DELETE METHOD

 Swagger
powered by SMARTREAN

Select a definitionSliit.MTIT.Student v1

Sliit.MTIT.Student 1.0 OAS3

<http://localhost:5174/swagger/v1/swagger.json>

customer

GET

/api/customer

POST

/api/customer

PUT

/api/customer

GET

/api/customer/{id}

DELETE

/api/customer/{id}

Parameters

Cancel

Name	Description
id required	
integer(\$int32)	6
(path)	

Execute

Clear

Responses

Curl

```
curl -X 'DELETE' \
  'http://localhost:5174/api/customer/6' \
  -H 'accept: */*'
```

Request URL

```
http://localhost:5174/api/customer/6
```

Server response

Code	Details
200	<div>Response body</div> <pre>customer with ID:6 got deleted successfully.</pre> <div><div></div>Download</div> <div>Response headers</div> <pre>content-type: text/plain; charset=utf-8 date: Wed, 19 Apr 2023 14:11:15 GMT server: Kestrel transfer-encoding: chunked</pre>

Responses

Code	Description	Links
200	Success	No links


 SLIIT
FACULTY OF COMPUTING



INVENTORY MANAGEMENT

IT19192024

GET METHOD

 Swagger
powered by SMARTTEAM

Select a definitionSLIIT.MTIT.Student v1

SLIIT.MTIT.Student1.0OAS3

http://localhost:5174/swagger/v1/swagger.json

BookStoreKeeper

GET/api/BookKeeper

Parameters

No parameters

ExecuteClear

Responses

Curl

curl -X 'GET' \\\n'http://localhost:5174/api/BookKeeper' \\\n-H 'accept: */*'

Request URL

http://localhost:5174/api/BookKeeper

Server response

CodeDetails

200

Response body

```
{\n  "discount": 20\n},\n{\n  "id": 2,\n  "name": "Harry",\n  "itemPrice": "456 Second Ave",\n  "discount": 22\n},\n{\n  "id": 3,\n  "name": "Tom",\n  "itemPrice": "789 Third St",\n  "discount": 11\n},\n{\n  "id": 4,\n  "name": "Kate",\n  "itemPrice": "321 Fourth Ave",\n  "discount": 13\n},\n{\n  "id": 5,\n  "name": "Mike",\n  "itemPrice": "654 Fifth St",\n  "discount": 19\n}\n}
```

Download


Response headers

```
content-type: application/json; charset=utf-8\ndate: Wed, 10 Apr 2023 13:29:33 GMT\nserver: Kestrel\ntransfer-encoding: chunked
```

Responses

Code	Description	Links
200	Success	No links

POST METHOD

 Swagger

Select a definitionSliit.MTIT.Student v1

Sliit.MTIT.Student 1.0 OAS3

<http://localhost:5174/swagger/v1/swagger.json>

BookStoreKeeper

GET

/api/BookKeeper

POST

/api/BookKeeper

Parameters

Cancel

Reset

No parameters

Request body

application/json

```
{  "id": 2,  "name": "Te Kill a Rockingbird",  "itemPrice": "1200",  "discount": 10}
```

Execute

Clear

Responses

Curl

```
curl -X 'POST' \  "http://localhost:5174/api/BookKeeper" \  -H 'accept: */*' \  -H 'Content-Type: application/json' \  -d '{  "id": 2,  "name": "Te Kill a Rockingbird",  "itemPrice": "1200",  "discount": 10  }'
```

Request URL

<http://localhost:5174/api/BookKeeper>

Server response

Code

Details

200

Response body

```
{  "id": 2,  "name": "Te Kill a Rockingbird",  "itemPrice": "1200",  "discount": 10  }
```


Response headers

```
content-type: application/json; charset=utf-8  date: Wed, 19 Apr 2023 13:21:03 GMT  server: Kestrel  transfer-encoding: chunked
```

Responses

Code	Description	Links
200	Success	No links

PUT METHOD

 Swagger

Select a definition SLIIT.MTIT.Student v1

SLIIT.MTIT.Student 1.0 OAS3

<http://localhost:5174/swagger/v1/swagger.json>

BookStoreKeeper

GET /api./BookKeeper

POST /api./BookKeeper

PUT /api./BookKeeper

Parameters

No parameters

Request body

application/json

```
{
  "id": 6,
  "name": "Balmond",
  "itemPrice": "1000",
  "discount": 15
}
```

Execute

Clear

Responses

Curl

```
curl -X PUT \
  "http://localhost:5174/api/BookKeeper" \
  -H "accept: */*" \
  -H "Content-Type: application/json" \
  -d '{
    "id": 6,
    "name": "Balmond",
    "itemPrice": "1000",
    "discount": 15
  }'
```

Request URL

http://localhost:5174/api/BookKeeper

Server response

Code

Details

200

Response body

```
{
  "id": 6,
  "name": "Balmond",
  "itemPrice": "1000",
  "discount": 15
}
```

Response headers

```
content-type: application/json; charset=utf-8
date: Wed, 19 Apr 2023 13:22:59 GMT
server: Kestrel
transfer-encoding: chunked
```

Responses

Code

Description


Links

200

Success

No links

DELETE METHOD

 Swagger
Powered by SMARTREAR

Select a definitionSliit.MTIT.Student v1

Sliit.MTIT.Student ^{1.0} OAS3

<http://localhost:5174/swagger/v1/swagger.json>

BookStoreKeeper

GET

/api/BookKeeper

POST

/api/BookKeeper

PUT

/api/BookKeeper

GET

/api/BookKeeper/{id}

DELETE

/api/BookKeeper/{id}

Parameters

Cancel

Name	Description
id * required	
integer(int32)	6
(path)	

ExecuteClear

Responses

Curl

```
curl -X 'DELETE' \
  'http://localhost:5174/api/BookKeeper/6' \
  -H 'accept: */*'
```

Request URL

```
http://localhost:5174/api/BookKeeper/6
```

Server response

Code	Details
200	<div>Response body</div> <div>BookKeeper with ID: 6 got deleted successfully.</div> <div>Response headers</div> <pre>content-type: text/plain; charset=utf-8 date: Wed, 19 Apr 2023 12:13:55 GMT server: Restlet transfer-encoding: chunked</pre>

Responses

Code	Description	Links
200	Success	No links


 SLIIT
FACULTY OF COMPUTING



ORDER MANAGEMENT

IT20147846

GET METHOD

 Swagger
Open source. SMARTER.

Select a definition Sliit.MTIT.Student v1

Sliit.MTIT.Student ^{1.0} OAS3

<http://localhost:5174/swagger/v1/swagger.json>

Order

GET /api/Order

Parameters

No parameters

Execute Clear

Responses

Curl

```
curl -X 'GET' \
  'http://localhost:5174/api/Order' \
  -H 'accept: */*'

```

Request URL

```
http://localhost:5174/api/Order

```

Server response

Code

Details

200

Response body

```
{
  "id": 1,
  "name": "John",
  "quantity": "123 Main St",
  "price": 20
},
{
  "id": 2,
  "name": "Mary",
  "quantity": "456 Second Ave",
  "price": 22
},
{
  "id": 3,
  "name": "Tom",
  "quantity": "789 Third St",
  "price": 23
},
{
  "id": 4,
  "name": "Kate",
  "quantity": "123 Fourth Ave",
  "price": 23
},
{
  "id": 5,

```

Response headers


```
content-type: application/json; charset=utf-8
date: Wed, 19 Apr 2023 13:39:08 GMT
server: Fastify
transfer-encoding: chunked

```

Responses

Code	Description	Links
200	Success	No links

POST METHOD

 Swagger

Select a definition **SLIIT.MTIT.Student v1**

SLIIT.MTIT.Student ^{4.0} ^{OAS3}

<http://localhost:5174/swagger/v1/swagger.json>

Order

GET /api/Order

POST /api/Order

Parameters

No parameters

Request body

application/json

```
{
  "id": 4,
  "name": "Don Quixote",
  "quantity": "152",
  "price": 145000
}
```

Execute

Clear

Responses

Curl

```
curl -X 'POST' \
  'http://localhost:5174/api/Order' \
  -H 'accept: */*' \
  -H 'Content-Type: application/json' \
  -d '{
    "id": 4,
    "name": "Don Quixote",
    "quantity": "152",
    "price": 145000
  }'
```

Request URL

```
http://localhost:5174/api/Order
```

Server response

Code

Details

200

Response body

```
{
  "id": 4,
  "name": "Don Quixote",
  "quantity": "152",
  "price": 145000
}
```


Response headers

```
Content-Type: application/json; charset=utf-8
Date: Wed, 19 Apr 2023 13:33:40 GMT
Server: Kestrel
Transfer-Encoding: chunked
```

Responses

Code	Description	Links
200	Success	No links

PUT METHOD

 Swagger

Select a definition **Slit.MTIT.Student v1**

Slit.MTIT.Student 1.0 OAS3
http://localhost:5174/swagger/v1/swagger.json

Order

GET /api/Order

POST /api/Order

PUT /api/Order

Parameters

No parameters

Request body

application/json

```
{
  "id": 6,
  "name": "Invisible",
  "quantity": "102",
  "price": 147696
}
```

Execute

Clear

Responses

Curl

```
curl -X PUT \
  http://localhost:5174/api/Order \
  -H 'accept: */*' \
  -H 'Content-Type: application/json' \
  -d '{
    "id": 6,
    "name": "Invisible",
    "quantity": "102",
    "price": 147696
  }'
```

Request URL

http://localhost:5174/api/Order

Server response

Code

Details

200

Response body

```
{
  "id": 6,
  "name": "Invisible",
  "quantity": "102",
  "price": 147696
}
```

Download


Response headers

```
content-type: application/json; charset=utf-8
date: Wed, 10 Apr 2023 13:51:08 GMT
server: Fastify
transfer-encoding: chunked
```

Responses

Code	Description	Links
200	Success	No links

DELETE METHOD

 Swagger
OPEN SOURCE API TOOLCHAIN

Select a definitionSliit.MTIT.Student v1

Sliit.MTIT.Student ^{1.0} OAS3

http://localhost:5174/swagger/v1/swagger.json

Order

GET

/api/Order

POST

/api/Order

PUT

/api/Order

GET

/api/Order/{id}

DELETE

/api/Order/{id}

Parameters

Name	Description
id * required	
integer(int32)	
(path)	

Execute

Clear

Responses

Curl

```
curl -X 'DELETE' \
  'http://localhost:5174/api/Order/6' \
  -H 'accept: */*'
```

Request URL

```
http://localhost:5174/api/Order/6
```

Server response

Code	Details
200	<p>Response body</p> <pre>Order with ID: 6 got deleted successfully.</pre> <p>Response headers</p> <pre>content-type: text/plain; charset=utf-8 date: Wed, 19 Apr 2023 13:32:18 GMT server: FastAPI transfer-encoding: chunked</pre>

Responses

Code	Description	Links
200	Success	No links



PRODUCT MANAGEMENT

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GET METHOD

Sliit.MTIT.Student 1.0 OAS3

http://localhost:5133/swagger/v1/swagger.json

BookStore

GET /api/BookStore

Parameters

No parameters

Cancel

Execute

Clear

Responses

Curl

```
curl -X 'GET' \
  'http://localhost:5133/api/BookStore' \
  -H 'accept: */*'
```

Request URL

http://localhost:5133/api/BookStore

Server response

Code Details

200

Response body

```
{
  "id": 1,
  "name": "Sherlock Holmes",
  "category": "Mystery fiction",
  "price": 2320
},
{
  "id": 2,
  "name": "Miss Last Bow",
  "category": "Detective Fiction",
  "price": 1800
},
{
  "id": 3,
  "name": "The Sign of the Four",
  "category": "Thriller",
  "price": 1200
},
{
  "id": 4,
  "name": "The return of sherlock holmes",
  "category": "romance",
  "price": 10
},
{
  "id": 5,
  "name": "The Hound of the Baskinville",
  "category": "Mystery fiction",
  "price": 1500
}
```

Download

Response headers

```
content-type: application/json; charset=utf-8
date: Wed, 19 Apr 2023 11:06:58 GMT
server: Kestrel
transfer-encoding: chunked
```

Responses

Code Description


200

Success

Links

No links

POST METHOD

 Swagger
1.6.0-RC1.0

Select a definitionSliit.MTIT.Student v1

Sliit.MTIT.Student ^{1.0} OAS3

<http://localhost:5133/swagger/v1/swagger.json>

BookStore

GET /api/BookStore

POST /api/BookStore

Parameters

No parameters

Request body

application/json

```
{
  "id": 6,
  "name": "To Kill a Mockingbird",
  "category": "Harper Lee",
  "price": 1298
}
```

Execute

Clear

Responses

Curl

```
curl -X 'POST' \
  'http://localhost:5133/api/BookStore' \
  -H 'accept: */*' \
  -H 'Content-Type: application/json' \
  -d '{
    "id": 6,
    "name": "To Kill a Mockingbird",
    "category": "Harper Lee",
    "price": 1298
  }'
```

Request URL

http://localhost:5133/api/BookStore

Server response

Code

Details

200

Response body

```
{
  "id": 6,
  "name": "To Kill a Mockingbird",
  "category": "Harper Lee",
  "price": 1298
}
```

Download


Response headers

```
content-type: application/json; charset=utf-8
date: Mon, 19 Apr 2023 13:06:38 GMT
server: Kestrel
transfer-encoding: chunked
```

Responses

Code	Description	Links
200	Success	No links

PUT METHOD

 Swagger
API DOCUMENTATION

Select a definition **Slit.MTIT.Student v1**

Slit.MTIT.Student ^{1.0} GA33
<http://localhost:5133/swagger/v1/swagger.json>

BookStore

GET /api/BookStore

POST /api/BookStore

PUT /api/BookStore

Parameters Cancel Reset

No parameters

Request body application/json

```
{
  "id": 6,
  "name": "Mrs Dalloway",
  "category": "string",
  "price": 1500
}
```

Execute Clear

Responses

```
curl -X PUT -H '
  http://localhost:5133/api/BookStore \
  -H 'accept: */* \
  -H 'Content-Type: application/json' \
  -d {
    "id": 6,
    "name": "Mrs Dalloway",
    "category": "string",
    "price": 1500
  }
```

Request URL:
http://localhost:5133/api/BookStore

Server response

Code	Details
200	<div>Response body</div> <pre>{ "id": 6, "name": "Mrs Dalloway", "category": "string", "price": 1500 }</pre> <div>Download</div>


Response headers

```
content-type: application/json; charset=utf-8
date: Wed, 19 Apr 2023 11:47:53 GMT
server: FastAPI
transfer-encoding: chunked
```

Responses

Code	Description	Links
200	Success	No links

DELETE METHOD

 Swagger
OpenAPI 3.0
Select a definition **Slit.MTITStudent v1**

Slit.MTIT.Student ^{1.0} OAS3

<http://localhost:5133/swagger/v1/swagger.json>

BookStore

GET

/api/BookStore

POST

/api/BookStore

PUT

/api/BookStore

GET

/api/BookStore/{id}

DELETE

/api/BookStore/{id}

Parameters

Cancel

Name	Description
id <small>* required</small>	
integer(int32)	6
(path)	

Execute

Clear

Responses

Curl

```
curl -X 'DELETE' \
  'http://localhost:5133/api/BookStore/6' \
  -H 'accept: */*'

```

Request URL

```
http://localhost:5133/api/BookStore/6

```

Server response

Code

Details

200

Response body

BookStore with ID: 6 get deleted successfully.

Download

Response headers

content-type: text/plain; charset=utf-8
date: Wed, 13 Apr 2023 11:08:39 GMT
server: Kestrel
transfer-encoding: chunked

Responses

Links

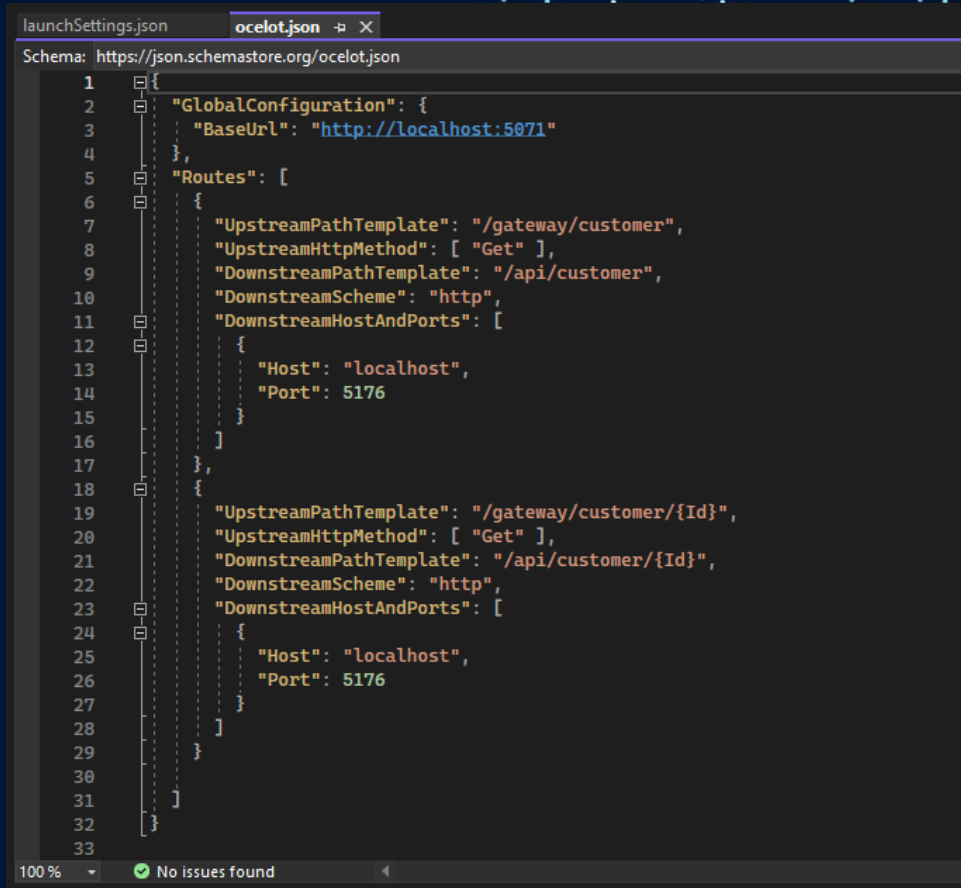
Code	Description	Links
200	Success	No links

UPSTREAM AND DOWNSTREAM

CUSTOMER MANAGEMENT

IT20029968

ocelot.json



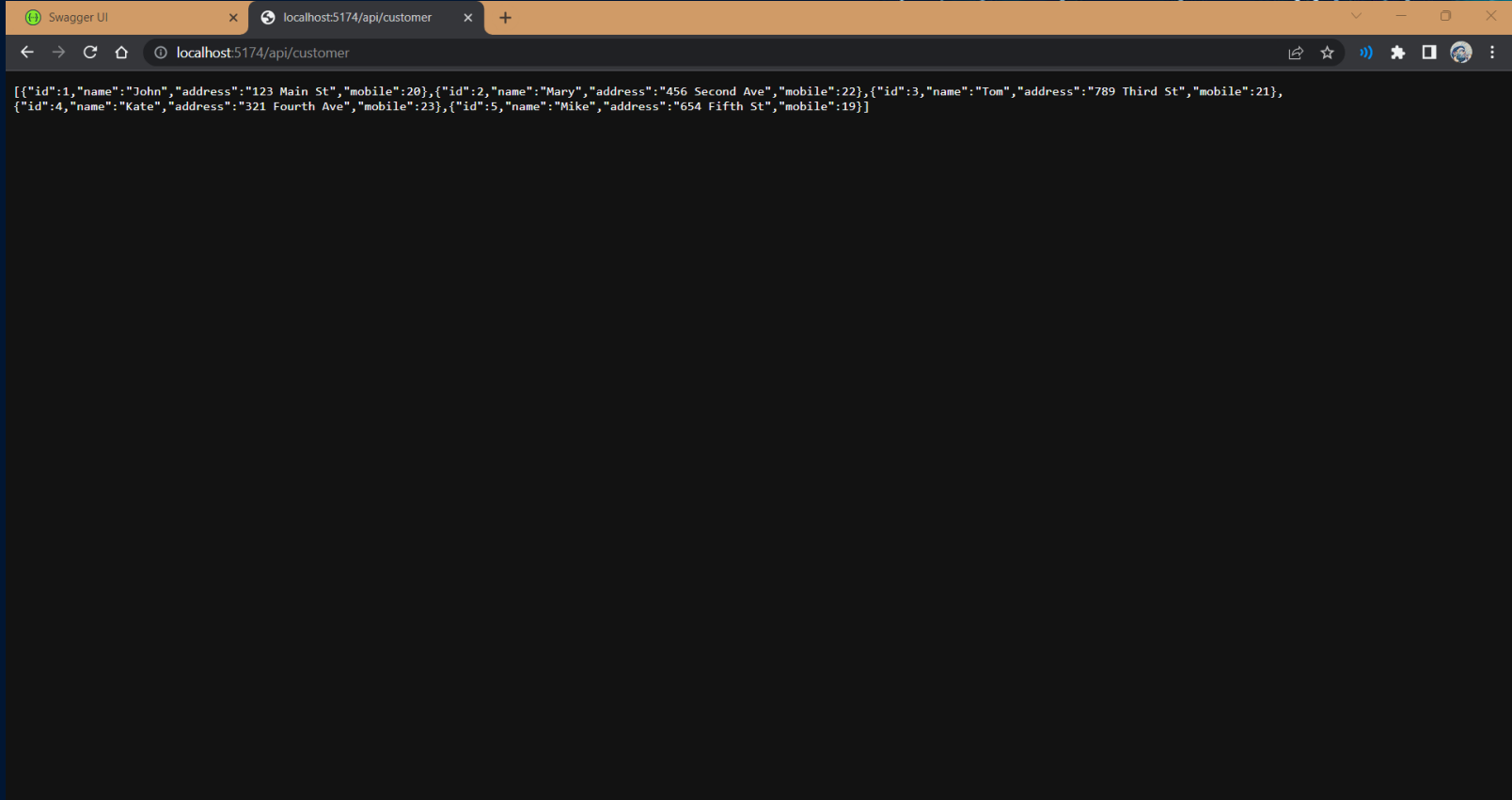
```
1  {
2    "GlobalConfiguration": {
3      "BaseUrl": "http://localhost:5071"
4    },
5    "Routes": [
6      {
7        "UpstreamPathTemplate": "/gateway/customer",
8        "UpstreamHttpMethod": [ "Get" ],
9        "DownstreamPathTemplate": "/api/customer",
10       "DownstreamScheme": "http",
11       "DownstreamHostAndPorts": [
12         {
13           "Host": "localhost",
14           "Port": 5176
15         }
16       ]
17     },
18     {
19       "UpstreamPathTemplate": "/gateway/customer/{Id}",
20       "UpstreamHttpMethod": [ "Get" ],
21       "DownstreamPathTemplate": "/api/customer/{Id}",
22       "DownstreamScheme": "http",
23       "DownstreamHostAndPorts": [
24         {
25           "Host": "localhost",
26           "Port": 5176
27         }
28       ]
29     }
30   ]
31 }
32
33
```


launchSettings.json

```
launchSettings.json
Schema: https://json.schemastore.org/launchsettings.json
1 {
2   "$schema": "https://json.schemastore.org/launchsettings.json",
3   "iisSettings": {
4     "windowsAuthentication": false,
5     "anonymousAuthentication": true,
6     "iisExpress": {
7       "applicationUrl": "http://localhost:54219",
8       "sslPort": 0
9     }
10  },
11  "profiles": {
12    "Sliit.MTIT.Customer": {
13      "commandName": "Project",
14      "dotnetRunMessages": true,
15      "launchBrowser": true,
16      "launchUrl": "swagger",
17      "applicationUrl": "http://localhost:5174",
18      "environmentVariables": {
19        "ASPNETCORE_ENVIRONMENT": "Development"
20      }
21    },
22    "IIS Express": {
23      "commandName": "IISExpress",
24      "launchBrowser": true,
25      "launchUrl": "swagger",
26      "environmentVariables": {
27        "ASPNETCORE_ENVIRONMENT": "Development"
28      }
29    }
30  }
31 }
32

launchSettings.json
Schema: https://json.schemastore.org/launchsettings.json
1 {
2   "iisSettings": {
3     "windowsAuthentication": false,
4     "anonymousAuthentication": true,
5     "iisExpress": {
6       "applicationUrl": "http://localhost:12855",
7       "sslPort": 0
8     }
9   },
10  "profiles": {
11    "Sliit.Mtiit.Ocelote": {
12      "commandName": "Project",
13      "dotnetRunMessages": true,
14      "launchBrowser": true,
15      "applicationUrl": "http://localhost:5176",
16      "environmentVariables": {
17        "ASPNETCORE_ENVIRONMENT": "Development"
18      }
19    },
20    "IIS Express": {
21      "commandName": "IISExpress",
22      "launchBrowser": true,
23      "environmentVariables": {
24        "ASPNETCORE_ENVIRONMENT": "Development"
25      }
26    }
27  }
28 }
29
```

Output



The screenshot shows a web browser window with two tabs. The first tab is titled 'Swagger UI' and the second tab is titled 'localhost:5174/api/customer'. The address bar shows the URL 'localhost:5174/api/customer'. The main content area of the browser displays the following JSON output:

```
[{"id":1,"name":"John","address":"123 Main St","mobile":20}, {"id":2,"name":"Mary","address":"456 Second Ave","mobile":22}, {"id":3,"name":"Tom","address":"789 Third St","mobile":21}, {"id":4,"name":"Kate","address":"321 Fourth Ave","mobile":23}, {"id":5,"name":"Mike","address":"654 Fifth St","mobile":19}]
```

INVENTORY MANAGEMENT

IT19192024

ocelot.json

```
1  {
2    "GlobalConfiguration": {
3      "BaseUrl": "http://localhost:5071"
4    },
5    "Routes": [
6      {
7        "UpstreamPathTemplate": "/gateway/BookKeeper",
8        "UpstreamHttpMethod": [ "Get" ],
9        "DownstreamPathTemplate": "/api/BookKeeper",
10       "DownstreamScheme": "http",
11       "DownstreamHostAndPorts": [
12         {
13           "Host": "localhost",
14           "Port": 5176
15         }
16       ]
17     },
18     {
19       "UpstreamPathTemplate": "/gateway/BookKeeper/{Id}",
20       "UpstreamHttpMethod": [ "Get" ],
21       "DownstreamPathTemplate": "/api/BookKeeper/{Id}",
22       "DownstreamScheme": "http",
23       "DownstreamHostAndPorts": [
24         {
25           "Host": "localhost",
26           "Port": 5176
27         }
28       ]
29     }
30   ]
31 }
32
33
```

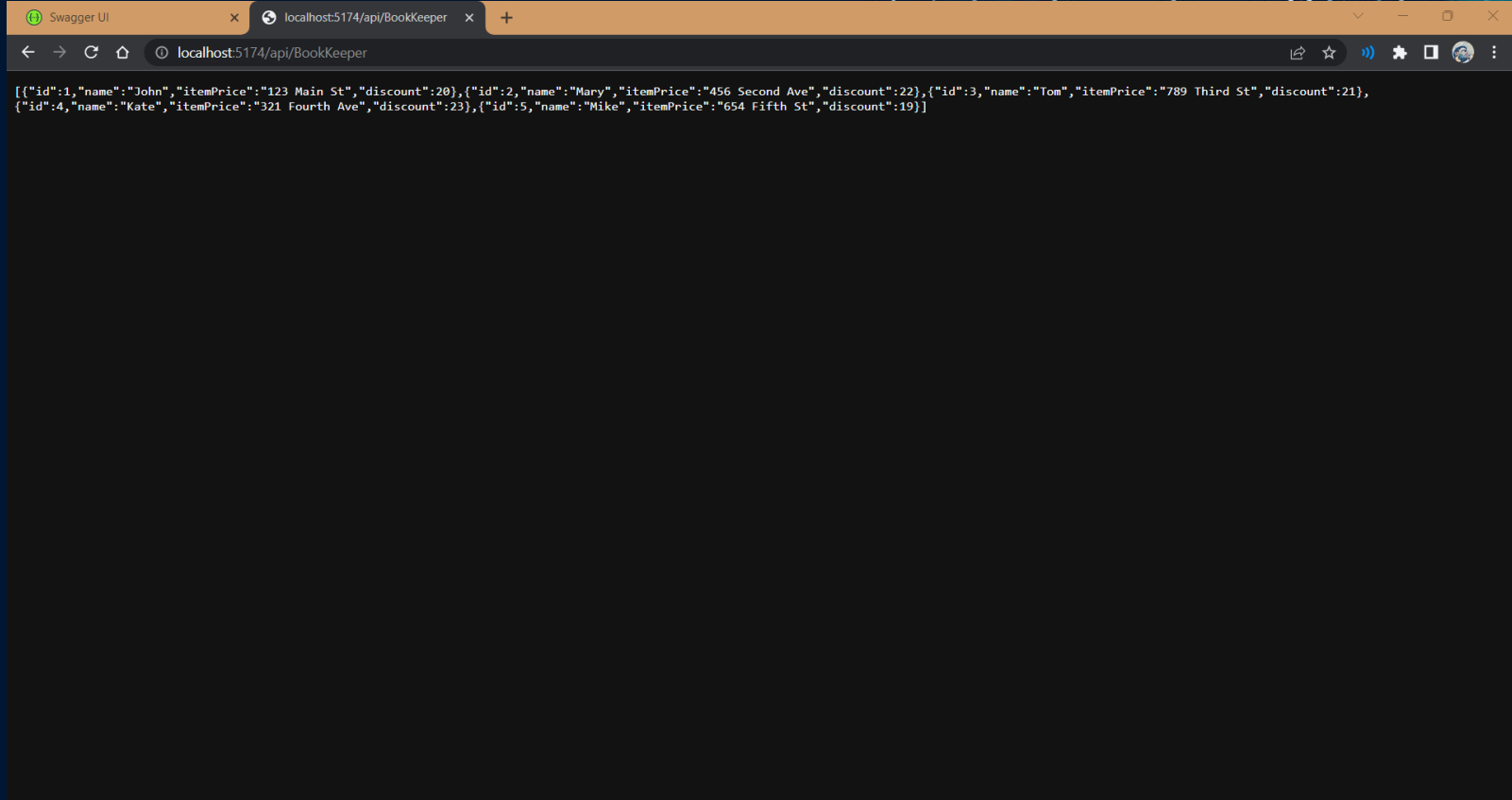
100% No issues found Ready

launchSettings.json

```
1 {
2   "iisSettings": {
3     "windowsAuthentication": false,
4     "anonymousAuthentication": true,
5     "iisExpress": {
6       "applicationUrl": "http://localhost:12855",
7       "sslPort": 0
8     }
9   },
10  "profiles": {
11    "Sliit.Mtit.Ocelote": {
12      "commandName": "Project",
13      "dotnetRunMessages": true,
14      "launchBrowser": true,
15      "applicationUrl": "http://localhost:5176",
16      "environmentVariables": {
17        "ASPNETCORE_ENVIRONMENT": "Development"
18      }
19    },
20    "IIS Express": {
21      "commandName": "IISExpress",
22      "launchBrowser": true,
23      "environmentVariables": {
24        "ASPNETCORE_ENVIRONMENT": "Development"
25      }
26    }
27  }
28 }
29
```

```
1 {
2   "$schema": "https://json.schemastore.org/launchSettings.json",
3   "iisSettings": {
4     "windowsAuthentication": false,
5     "anonymousAuthentication": true,
6     "iisExpress": {
7       "applicationUrl": "http://localhost:54219",
8       "sslPort": 0
9     }
10  },
11  "profiles": {
12    "Sliit.MTIT.BookKeeper": {
13      "commandName": "Project",
14      "dotnetRunMessages": true,
15      "launchBrowser": true,
16      "launchUrl": "swagger",
17      "applicationUrl": "http://localhost:5174",
18      "environmentVariables": {
19        "ASPNETCORE_ENVIRONMENT": "Development"
20      }
21    },
22    "IIS Express": {
23      "commandName": "IISExpress",
24      "launchBrowser": true,
25      "launchUrl": "swagger",
26      "environmentVariables": {
27        "ASPNETCORE_ENVIRONMENT": "Development"
28      }
29    }
30  }
31 }
32
```

Output

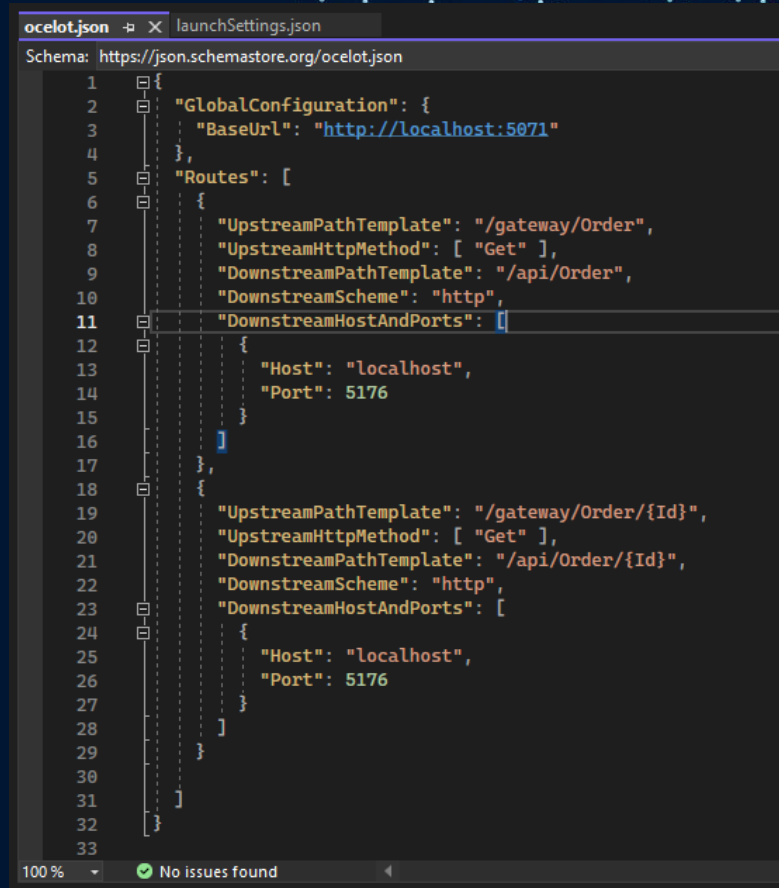


```
[{"id":1,"name":"John","itemPrice":"123 Main St","discount":20}, {"id":2,"name":"Mary","itemPrice":"456 Second Ave","discount":22}, {"id":3,"name":"Tom","itemPrice":"789 Third St","discount":21}, {"id":4,"name":"Kate","itemPrice":"321 Fourth Ave","discount":23}, {"id":5,"name":"Mike","itemPrice":"654 Fifth St","discount":19}]
```

ORDER MANAGEMENT

IT20147846

ocelot.json



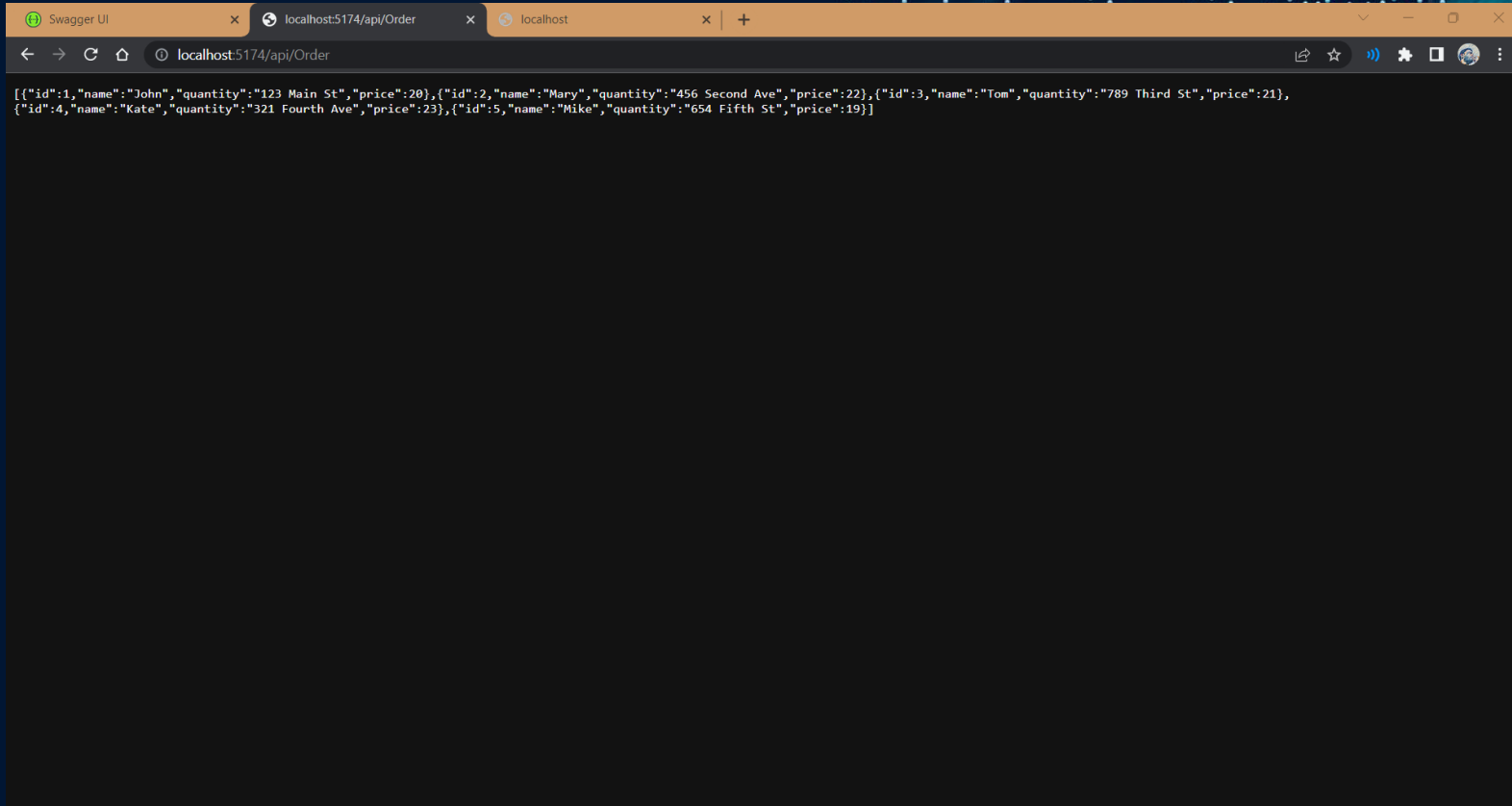
```
ocelot.json  X launchSettings.json
Schema: https://json.schemastore.org/ocelot.json
1  {
2    "GlobalConfiguration": {
3      "BaseUrl": "http://localhost:5071"
4    },
5    "Routes": [
6      {
7        "UpstreamPathTemplate": "/gateway/Order",
8        "UpstreamHttpMethod": [ "Get" ],
9        "DownstreamPathTemplate": "/api/Order",
10       "DownstreamScheme": "http",
11       "DownstreamHostAndPorts": [
12         {
13           "Host": "localhost",
14           "Port": 5176
15         }
16       ],
17     },
18     {
19       "UpstreamPathTemplate": "/gateway/Order/{Id}",
20       "UpstreamHttpMethod": [ "Get" ],
21       "DownstreamPathTemplate": "/api/Order/{Id}",
22       "DownstreamScheme": "http",
23       "DownstreamHostAndPorts": [
24         {
25           "Host": "localhost",
26           "Port": 5176
27         }
28       ]
29     }
30   ]
31 }
32
33
100 %  No issues found
```


launchSettings.json

```
1 {
2   "iisSettings": {
3     "windowsAuthentication": false,
4     "anonymousAuthentication": true,
5     "iisExpress": {
6       "applicationUrl": "http://localhost:12855",
7       "sslPort": 0
8     }
9   },
10  "profiles": {
11    "Sliit.Mtit.Ocelote": {
12      "commandName": "Project",
13      "dotnetRunMessages": true,
14      "launchBrowser": true,
15      "applicationUrl": "http://localhost:5176",
16      "environmentVariables": {
17        "ASPNETCORE_ENVIRONMENT": "Development"
18      }
19    },
20    "IIS Express": {
21      "commandName": "IISExpress",
22      "launchBrowser": true,
23      "environmentVariables": {
24        "ASPNETCORE_ENVIRONMENT": "Development"
25      }
26    }
27  }
28 }
29
```

```
1 {
2   "$schema": "https://json.schemastore.org/launchsettings.json",
3   "iisSettings": {
4     "windowsAuthentication": false,
5     "anonymousAuthentication": true,
6     "iisExpress": {
7       "applicationUrl": "http://localhost:54219",
8       "sslPort": 0
9     }
10  },
11  "profiles": {
12    "Sliit.MTIT.Order": {
13      "commandName": "Project",
14      "dotnetRunMessages": true,
15      "launchBrowser": true,
16      "launchUrl": "swagger",
17      "applicationUrl": "http://localhost:5174",
18      "environmentVariables": {
19        "ASPNETCORE_ENVIRONMENT": "Development"
20      }
21    },
22    "IIS Express": {
23      "commandName": "IISExpress",
24      "launchBrowser": true,
25      "launchUrl": "swagger",
26      "environmentVariables": {
27        "ASPNETCORE_ENVIRONMENT": "Development"
28      }
29    }
30  }
31 }
32
```

Output

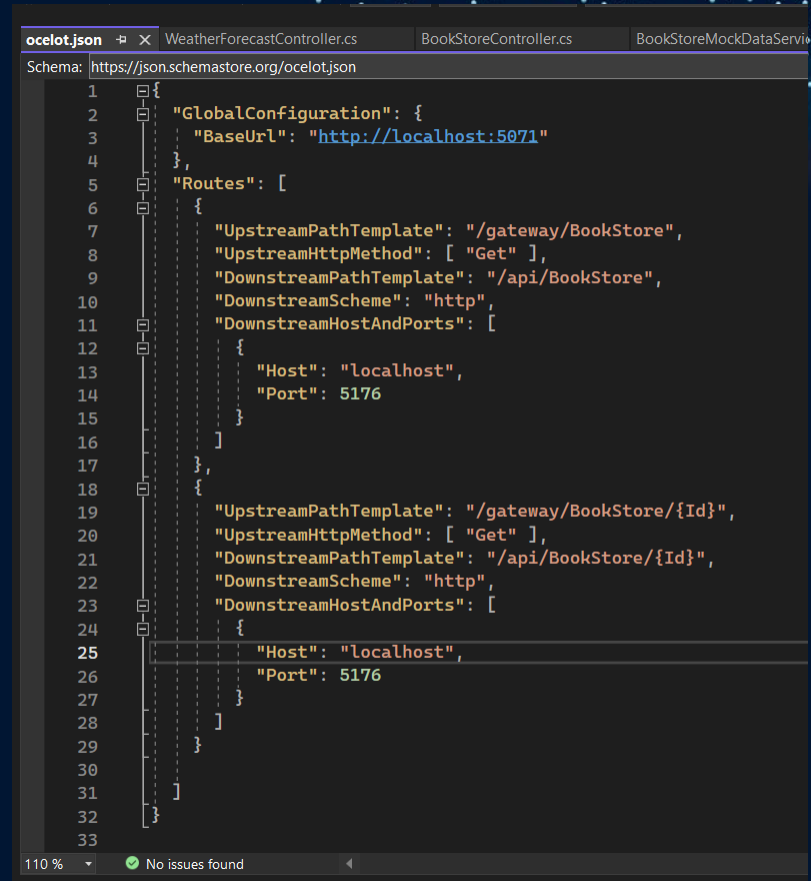


```
[{"id":1,"name":"John","quantity":"123 Main St","price":20}, {"id":2,"name":"Mary","quantity":"456 Second Ave","price":22}, {"id":3,"name":"Tom","quantity":"789 Third St","price":21}, {"id":4,"name":"Kate","quantity":"321 Fourth Ave","price":23}, {"id":5,"name":"Mike","quantity":"654 Fifth St","price":19}]
```

PRODUCT MANAGEMENT

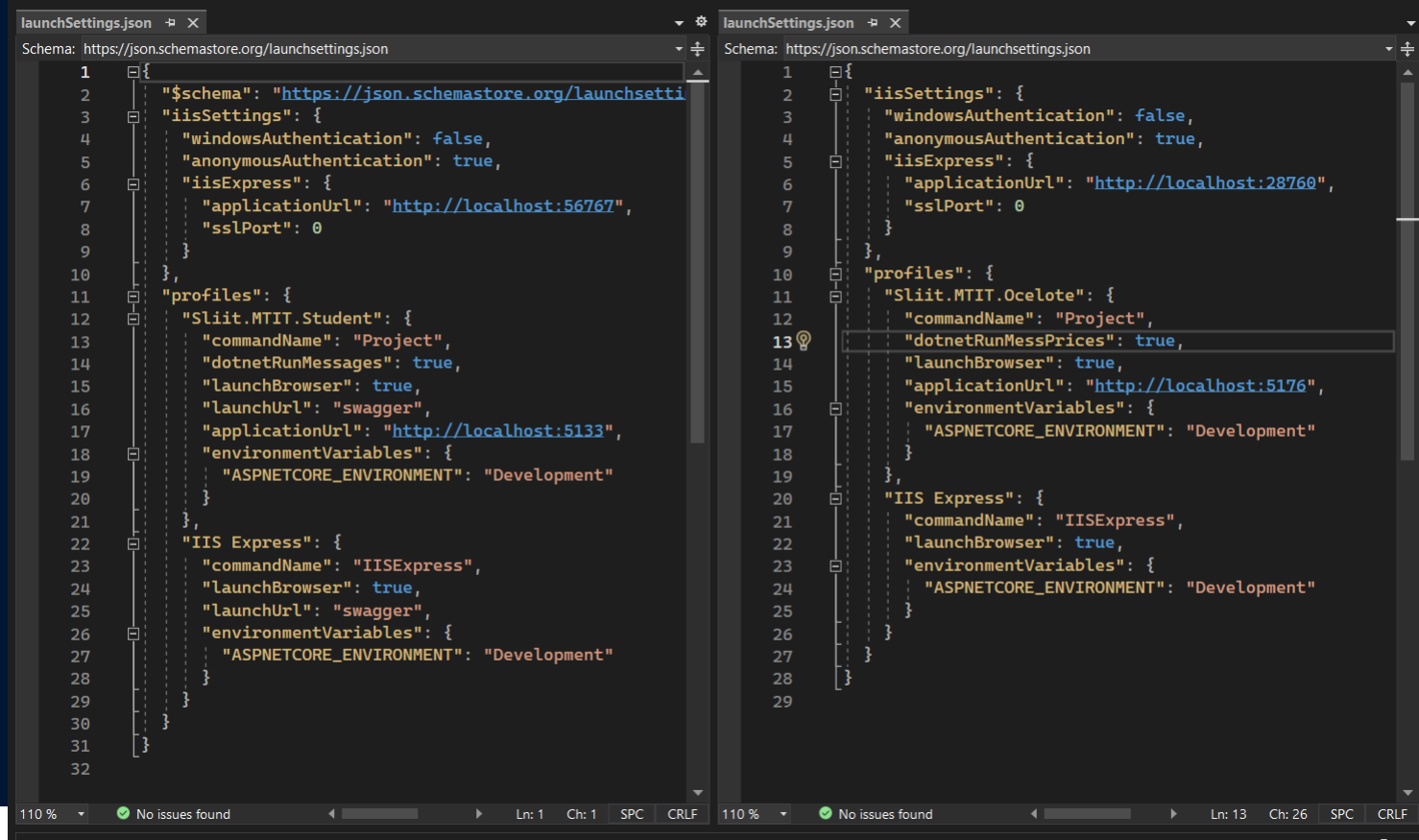
IT20051020

ocelot.json



```
ocelot.json WeatherForecastController.cs BookStoreController.cs BookStoreMockDataService.cs
Schema: https://json.schemastore.org/ocelot.json
1  {
2    "GlobalConfiguration": {
3      "BaseUrl": "http://localhost:5071"
4    },
5    "Routes": [
6      {
7        "UpstreamPathTemplate": "/gateway/BookStore",
8        "UpstreamHttpMethod": [ "Get" ],
9        "DownstreamPathTemplate": "/api/BookStore",
10       "DownstreamScheme": "http",
11       "DownstreamHostAndPorts": [
12         {
13           "Host": "localhost",
14           "Port": 5176
15         }
16       ]
17     },
18     {
19       "UpstreamPathTemplate": "/gateway/BookStore/{Id}",
20       "UpstreamHttpMethod": [ "Get" ],
21       "DownstreamPathTemplate": "/api/BookStore/{Id}",
22       "DownstreamScheme": "http",
23       "DownstreamHostAndPorts": [
24         {
25           "Host": "localhost",
26           "Port": 5176
27         }
28       ]
29     }
30   ]
31 }
32
33
110 % No issues found
```

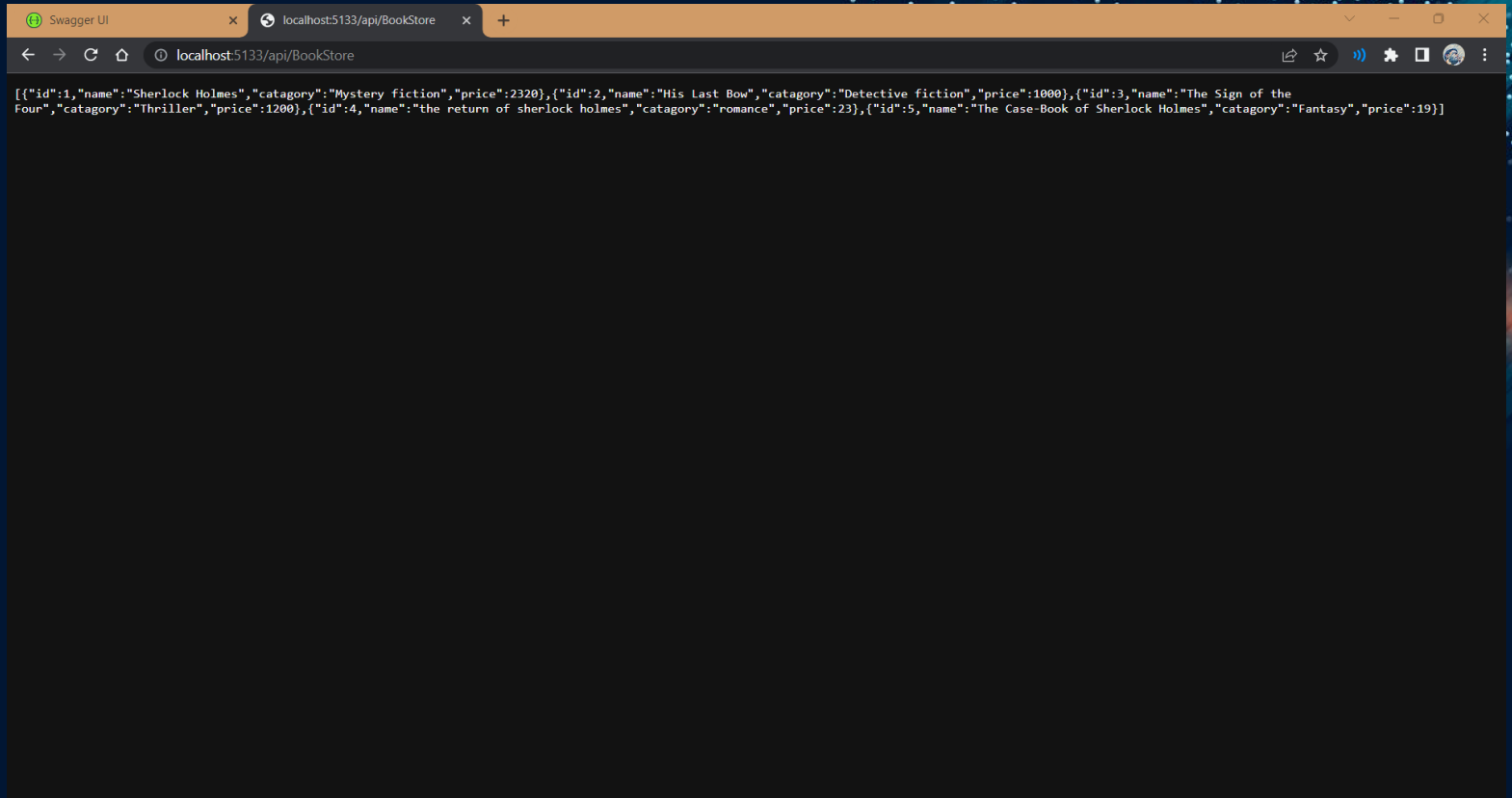
launchSettings.json



```
launchSettings.json
Schema: https://json.schemastore.org/launchsettings.json
1 {
2   "$schema": "https://json.schemastore.org/launchsettings.json",
3   "iisSettings": {
4     "windowsAuthentication": false,
5     "anonymousAuthentication": true,
6     "iisExpress": {
7       "applicationUrl": "http://localhost:56767",
8       "sslPort": 0
9     }
10  },
11  "profiles": {
12    "Sliit.MTIT.Student": {
13      "commandName": "Project",
14      "dotnetRunMessages": true,
15      "launchBrowser": true,
16      "launchUrl": "swagger",
17      "applicationUrl": "http://localhost:5133",
18      "environmentVariables": {
19        "ASPNETCORE_ENVIRONMENT": "Development"
20      }
21    },
22    "IIS Express": {
23      "commandName": "IISExpress",
24      "launchBrowser": true,
25      "launchUrl": "swagger",
26      "environmentVariables": {
27        "ASPNETCORE_ENVIRONMENT": "Development"
28      }
29    }
30  }
31 }
32
```

```
launchSettings.json
Schema: https://json.schemastore.org/launchsettings.json
1 {
2   "iisSettings": {
3     "windowsAuthentication": false,
4     "anonymousAuthentication": true,
5     "iisExpress": {
6       "applicationUrl": "http://localhost:28760",
7       "sslPort": 0
8     }
9   },
10  "profiles": {
11    "Sliit.MTIT.Ocelote": {
12      "commandName": "Project",
13      "dotnetRunMessages": true,
14      "launchBrowser": true,
15      "applicationUrl": "http://localhost:5176",
16      "environmentVariables": {
17        "ASPNETCORE_ENVIRONMENT": "Development"
18      }
19    },
20    "IIS Express": {
21      "commandName": "IISExpress",
22      "launchBrowser": true,
23      "environmentVariables": {
24        "ASPNETCORE_ENVIRONMENT": "Development"
25      }
26    }
27  }
28 }
29
```

Output



```
[{"id":1,"name":"Sherlock Holmes","category":"Mystery fiction","price":2320}, {"id":2,"name":"His Last Bow","category":"Detective fiction","price":1000}, {"id":3,"name":"The Sign of the Four","category":"Thriller","price":1200}, {"id":4,"name":"the return of sherlock holmes","category":"romance","price":23}, {"id":5,"name":"The Case-Book of Sherlock Holmes","category":"Fantasy","price":19}]
```

THANK YOU !