DOTNET CORE-AZURE MINI PROJECT

Create a Web API Project to store Product Information. Use Entity Framework to store the product information in the database. The user should be able to perform all the CRUD Operations. Configure GET, POST, PUT and DELETE.

The Product Entity should have the following properties:

- Product ID
- ProductName
- Price
- Brand
- Manufacture Date
- Expiration Date

Use Data Annotations to

- Mark the Primary Key
- Make ProductName Mandatory
- Make Price a Number

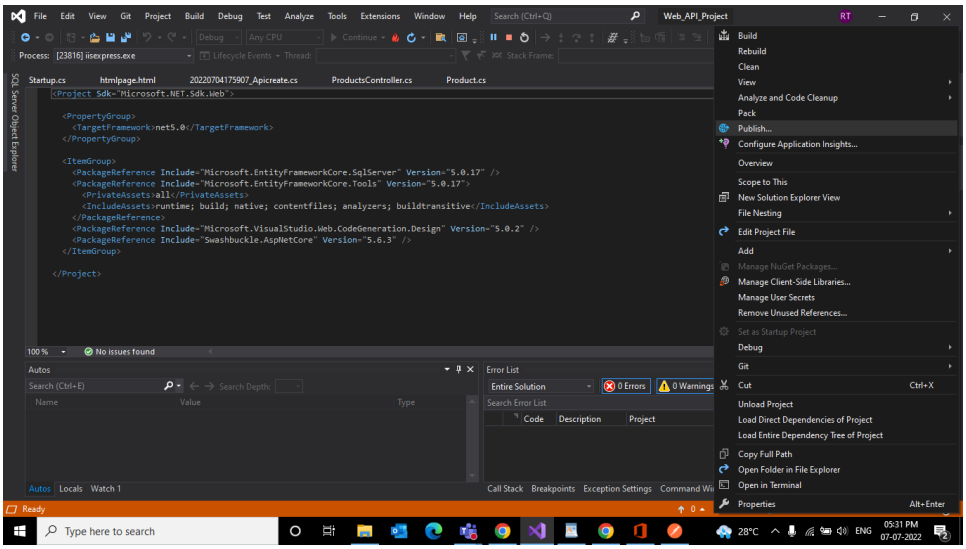
Create a jQuery and AJAX Client to consume the Web API and show the result.

Azure Hosting:

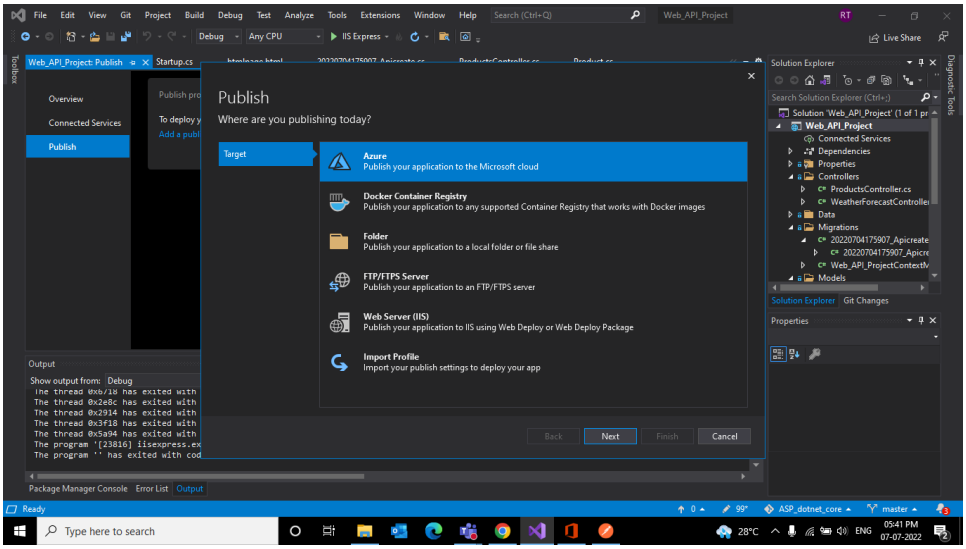
- Host the web Api in azure and consume the same using jQuery Client.
- Configure Scale out by adding rules for custom scaling
- Configure Deployment slots for staging and production
- Configure Application Insights for the project
- Configure Swagger for the Api
- Work with Log Analytics with the sample logs available

1.Host the web Api in azure and consume the same using jQuery Client.

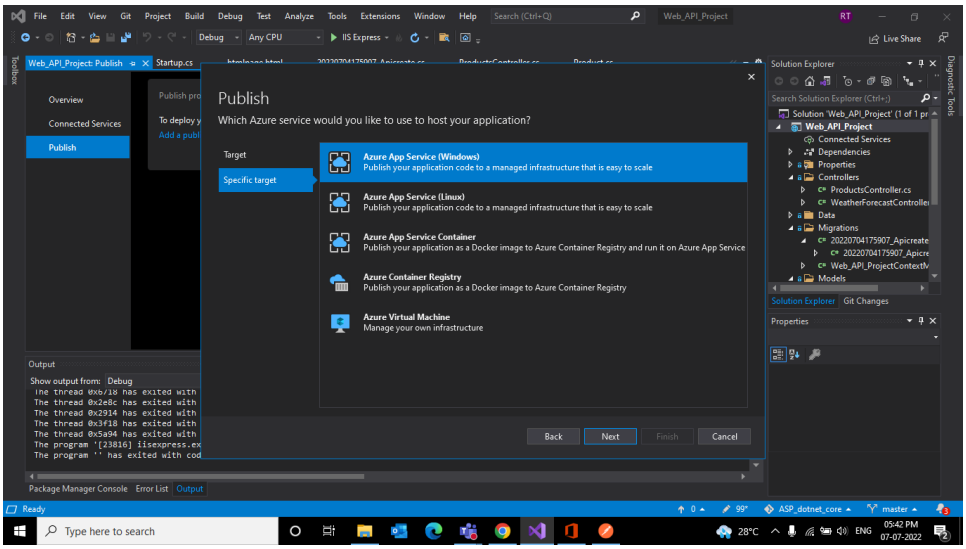
- In Solution Explorer, right-click the project and select Publish.



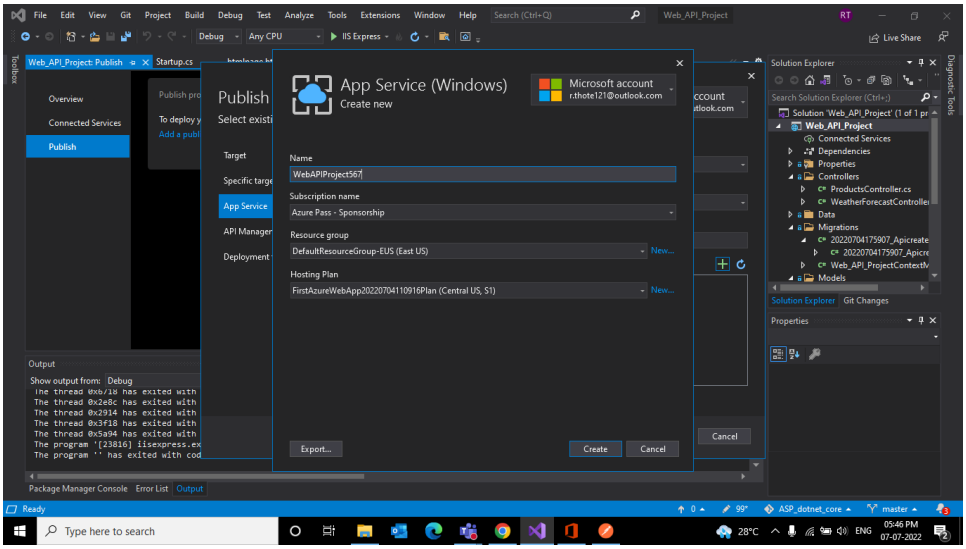
- In the Publish dialog, select Azure and select the Next button.



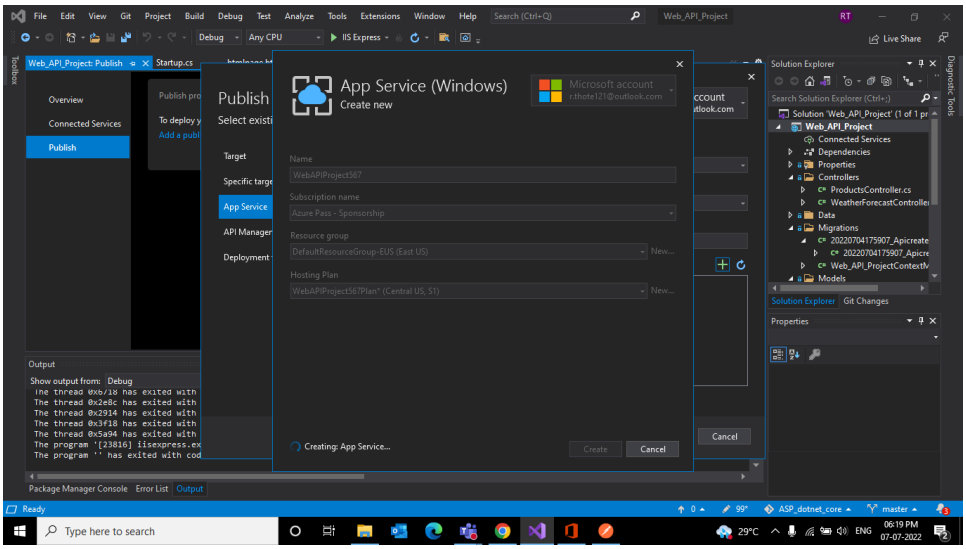
- Select Azure App Service (Windows) and select the Next button .



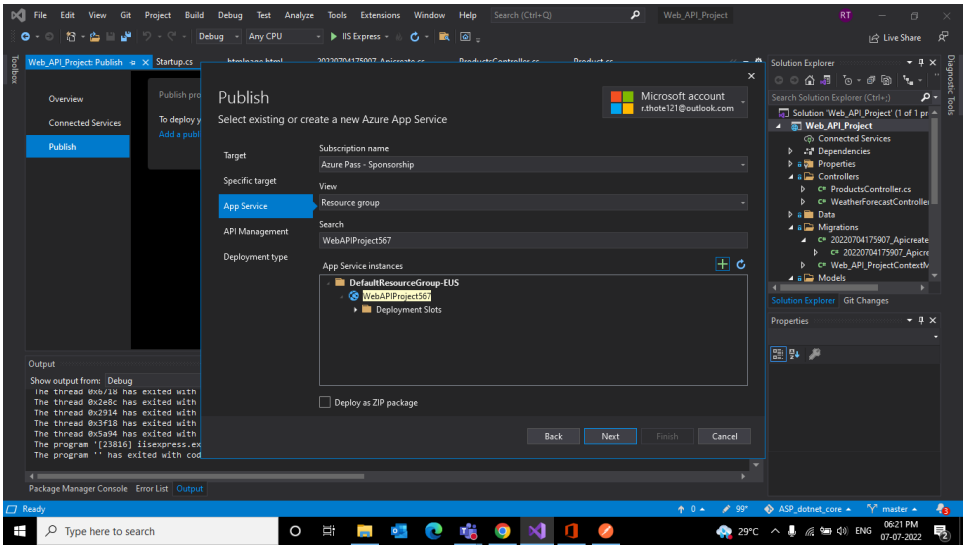
- Select Create a new Azure App Service.



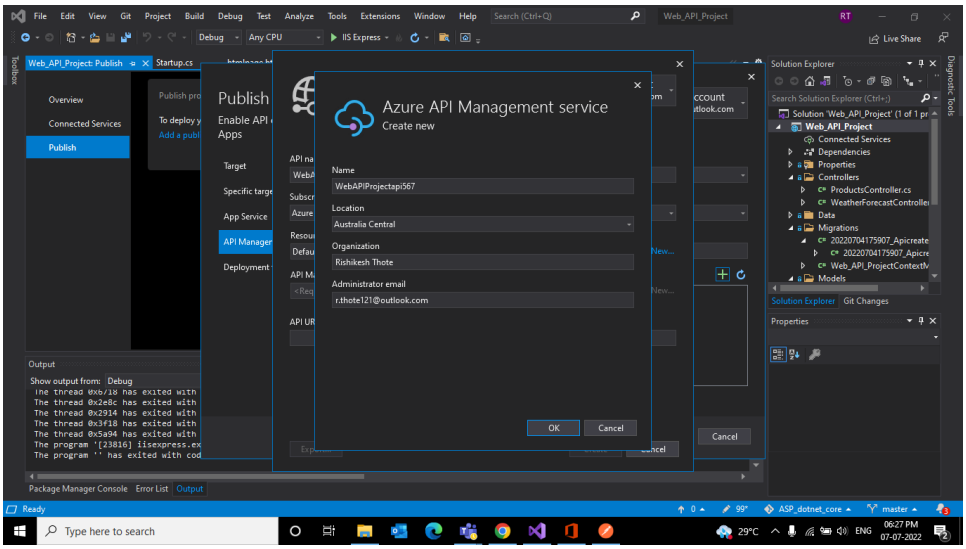
- The Create App Service dialog appears. The App Name, Resource Group, and App Service Plan entry fields are populated. You can keep these names or change them. Select the Create button.



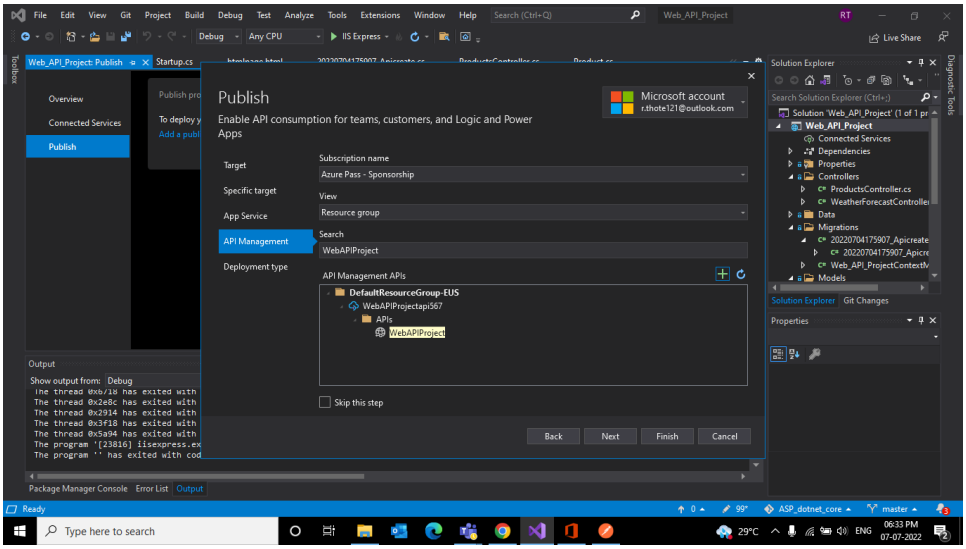
- After creation is completed, the dialog is automatically closed and the Publish dialog gets focus again. The instance that was created is automatically selected.



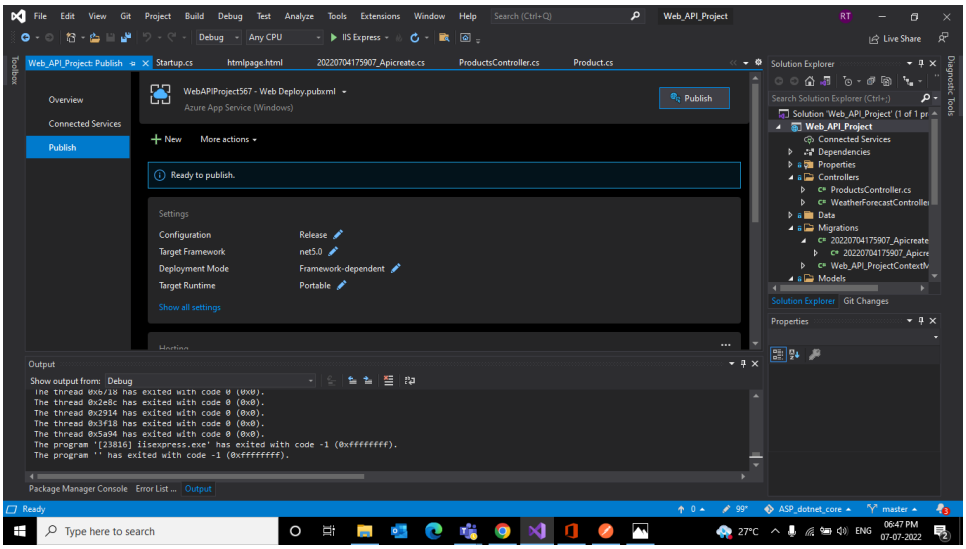
- The Create the Azure API Management service dialog appears. The App Name, Resource Group, and API Management service entry fields are populated. You can keep these names or change them. Select the Create button.



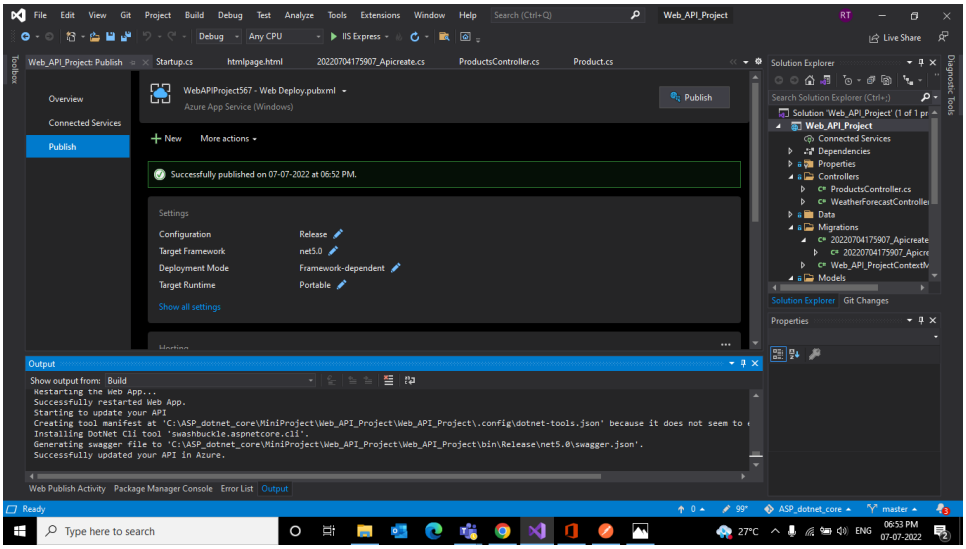
- After creation is completed, the dialog is automatically closed and the Publish dialog gets focus again. The instance that was created is automatically selected.



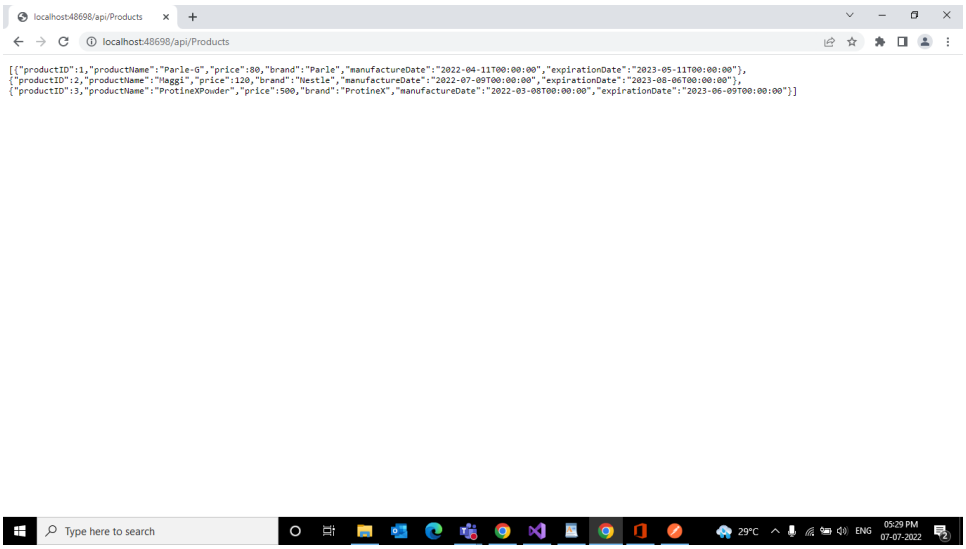
- The dialogue closes and a summary screen appear with information about the Publish. Select the Publish button.



- Select the Publish button after that it will Publishing to Azure App Service(Window) and checking your application will run Successfully..

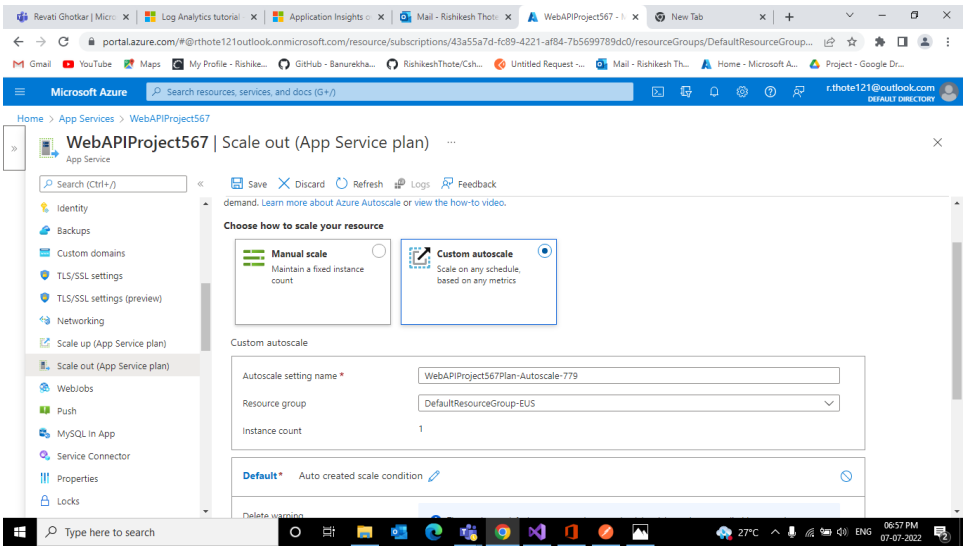


- The web API will publish to both Azure App Service and Azure API Management. A new browser window will appear and show the API running in Azure App Service.

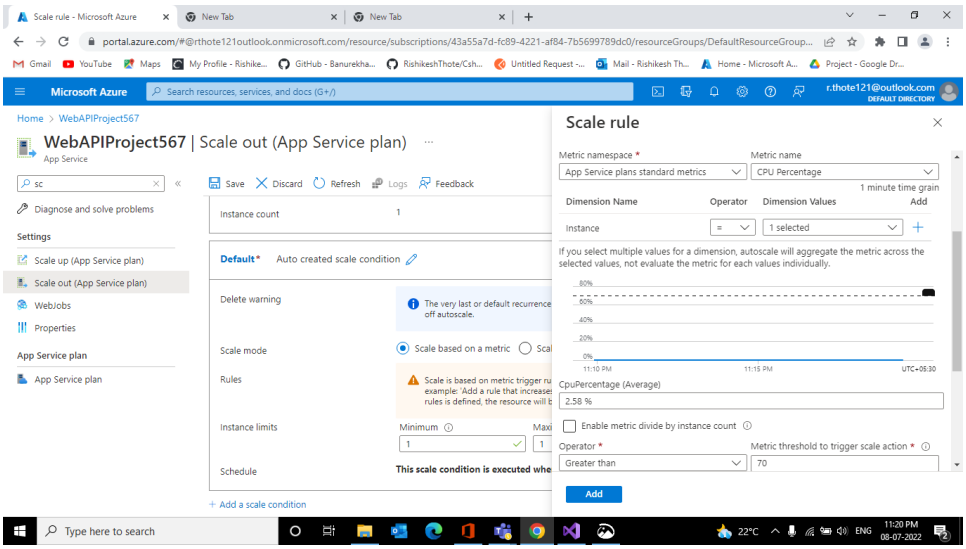


2. Configure Scale out by adding rules for custom scaling

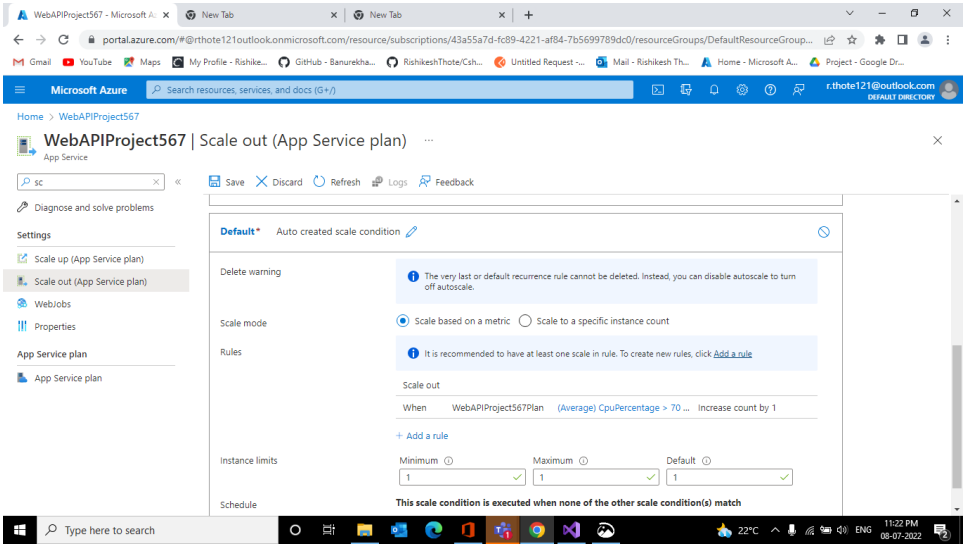
- Switch back to the Azure API Management instance in the Azure portal. Refresh the browser window. Select the API you created in the preceding steps. It's now populated and you can explore around.
- Search and select Auto scale in the search bar and Select Custom Auto scale In the Rules section of the default scale condition, select Add a rule. From the Metric source dropdown, select current resource. From Resource Type, select Application Insights.



- From the Resource dropdown, select your App services plan standard metrics. Select a Metric name to CPU Percentage and Select Enable metric divide by instance count so that the number of sessions per instance is measured. From the Operator dropdown, select Greater than.

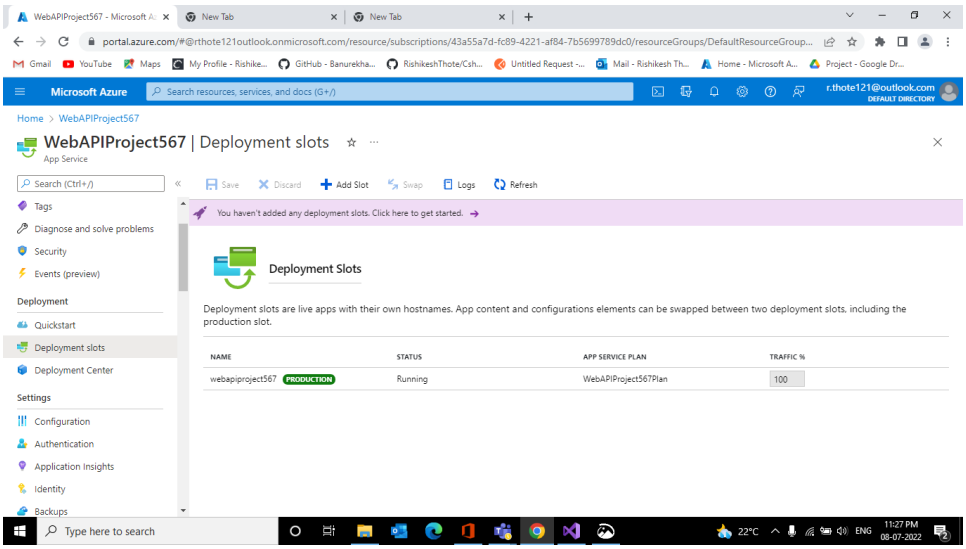


- After adding the scale, it shows Rules.

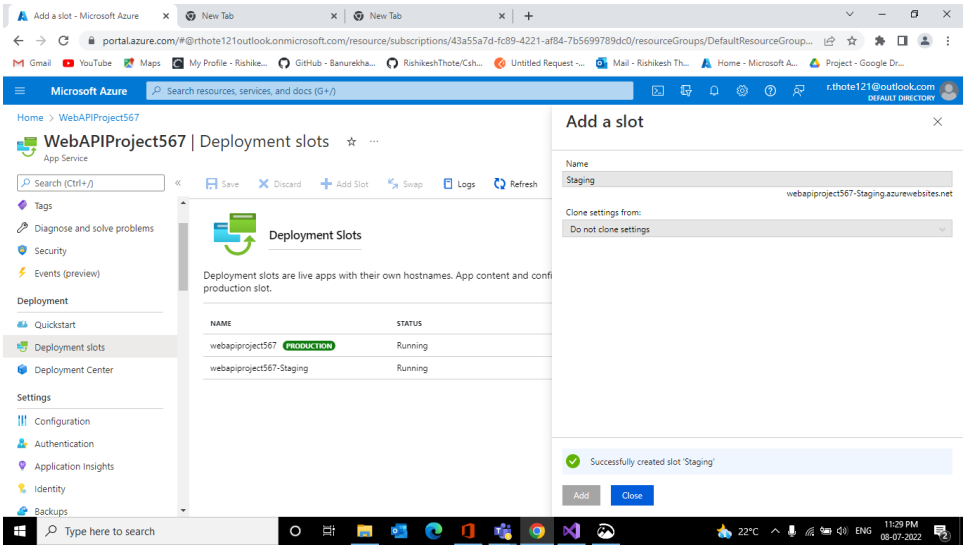


3.Configure Deployment slots for staging and production

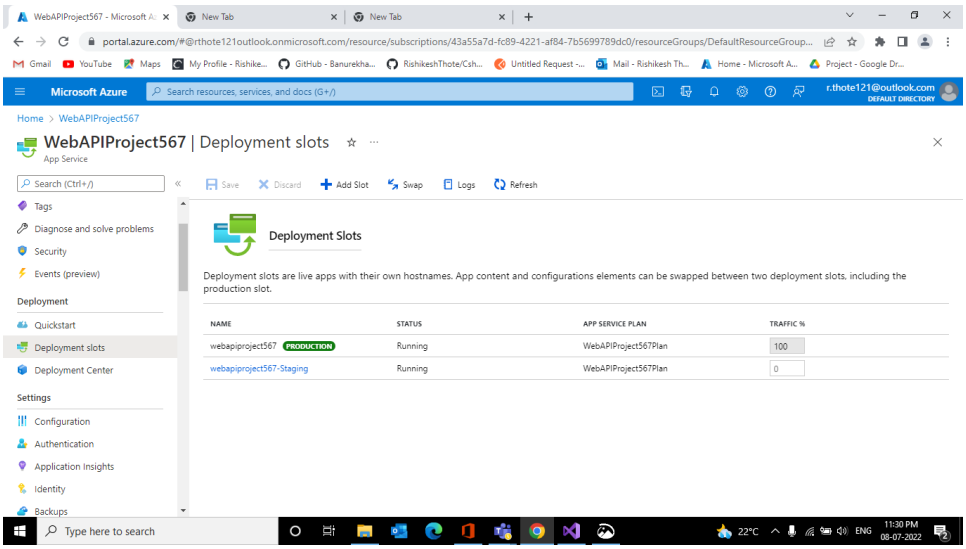
- Azure Functions deployment slots allow your function app to run different instances called "slots". Slots are different environments exposed via a publicly available endpoint. One app instance is always mapped to the production slot, and you can swap instances assigned to a slot on demand. Function apps running under the Apps Service plan may have multiple slots, while under the Consumption plan only one slot is allowed.



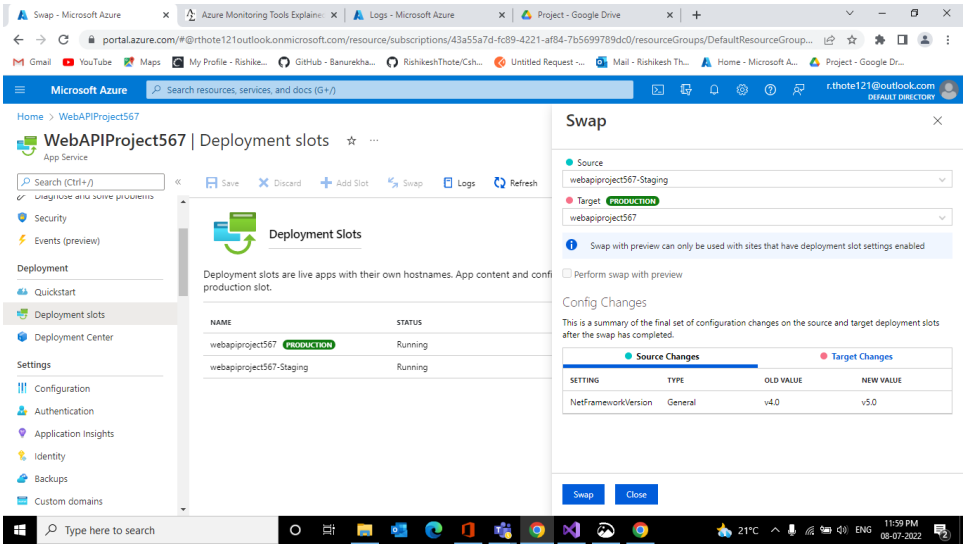
Add the Slot and Name as Staging and then Add the Slot.

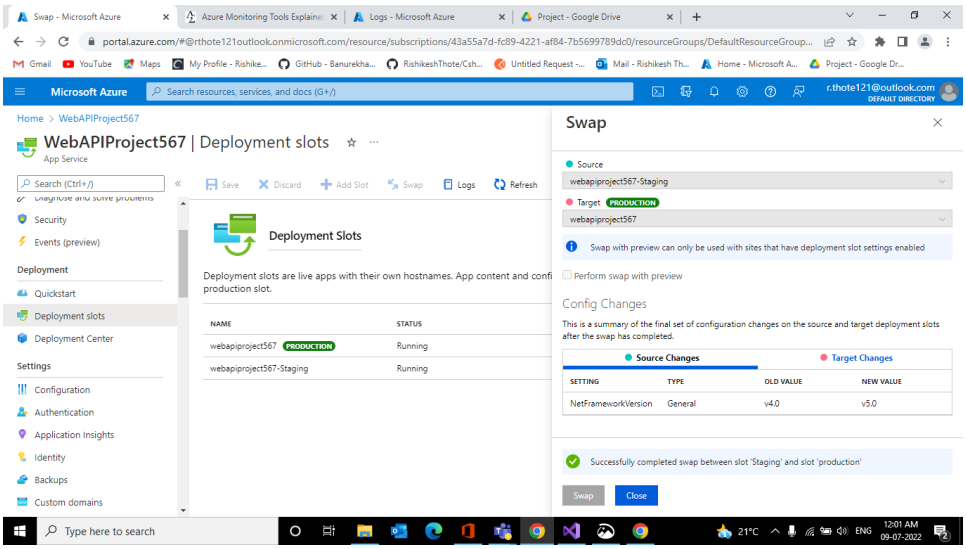


After Add Slot Successful both the Production and Staging is Displayed .



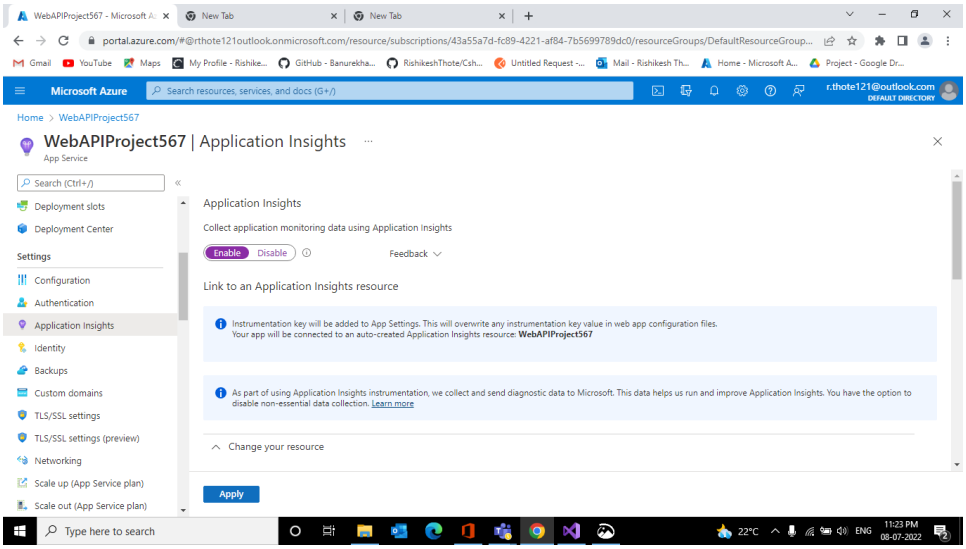
Select Deployment slots, and then select Swap and Verify the configuration settings for your swap and select Swap.

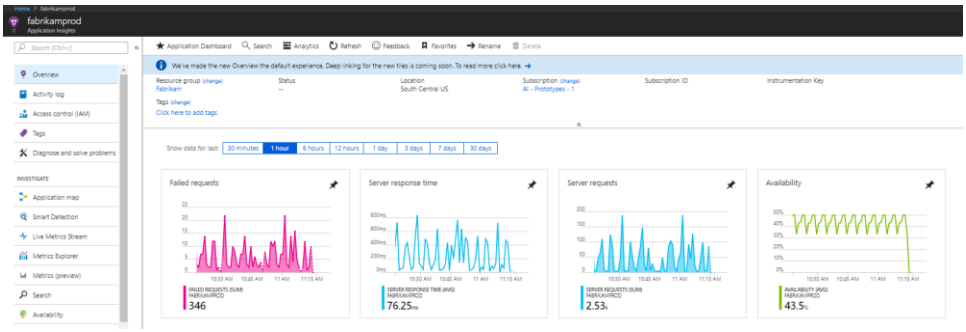


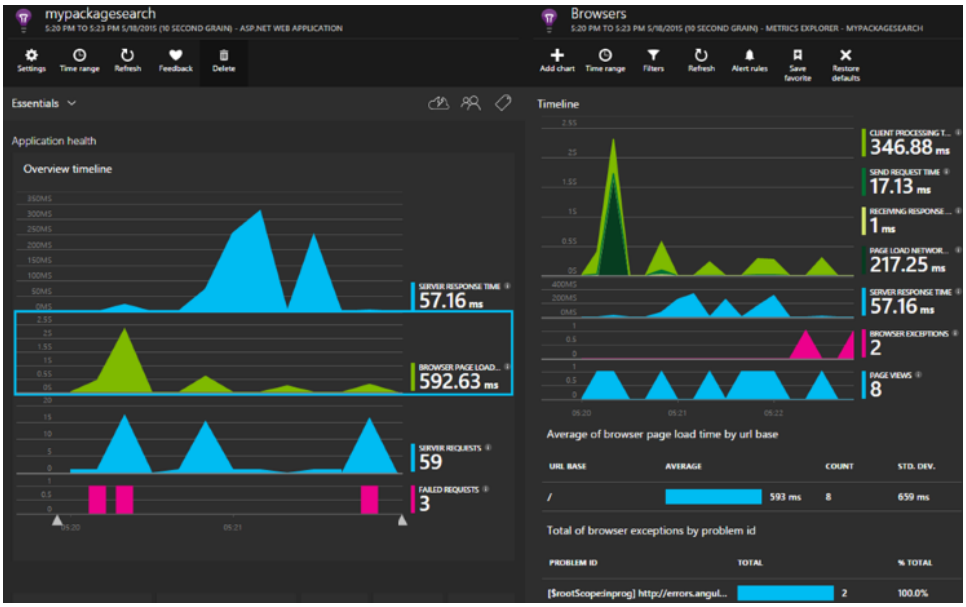


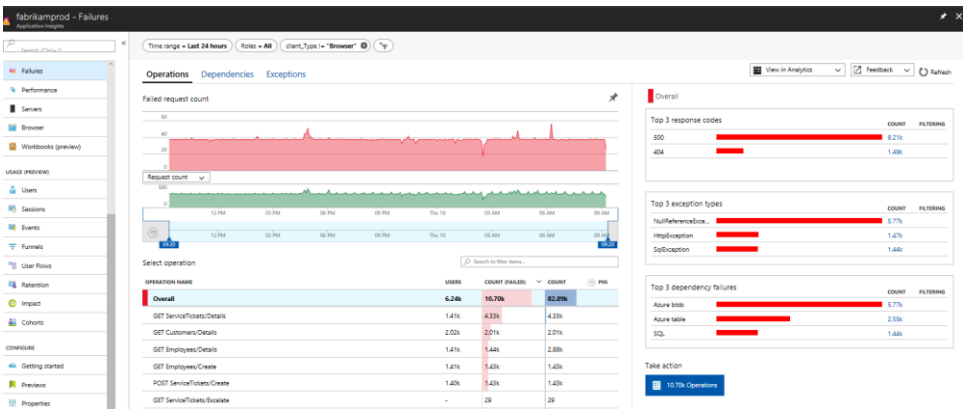
4. Configure Application Insights for the project

- Select the Application Insights









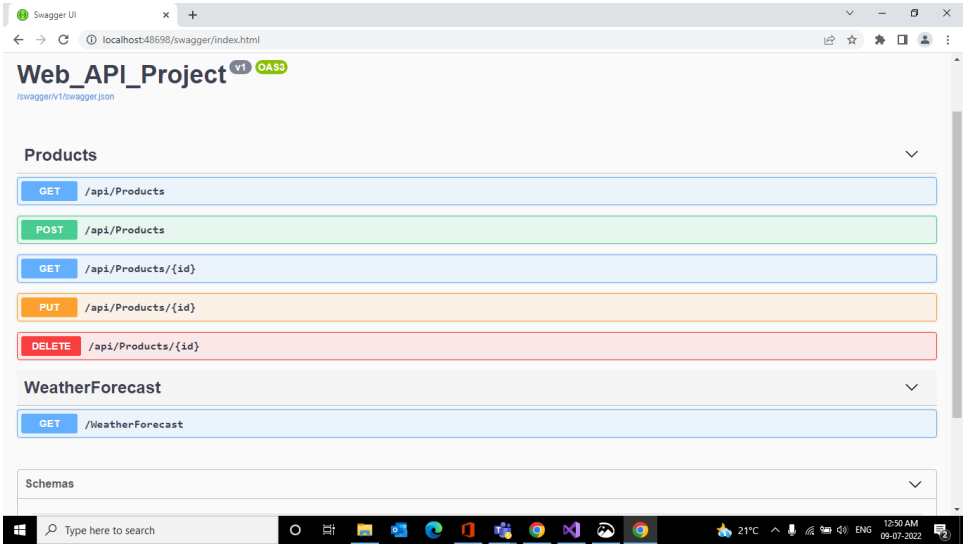
5. Configure Swagger for the API

Swagger UI allows anyone be it your development team or your end consumers to visualize and interact with the API's resources without having any of the implementation logic in place. It's automatically generated from your Open API (formerly known as Swagger) Specification, with the visual documentation making it easy for back-end implementation and client-side consumption.

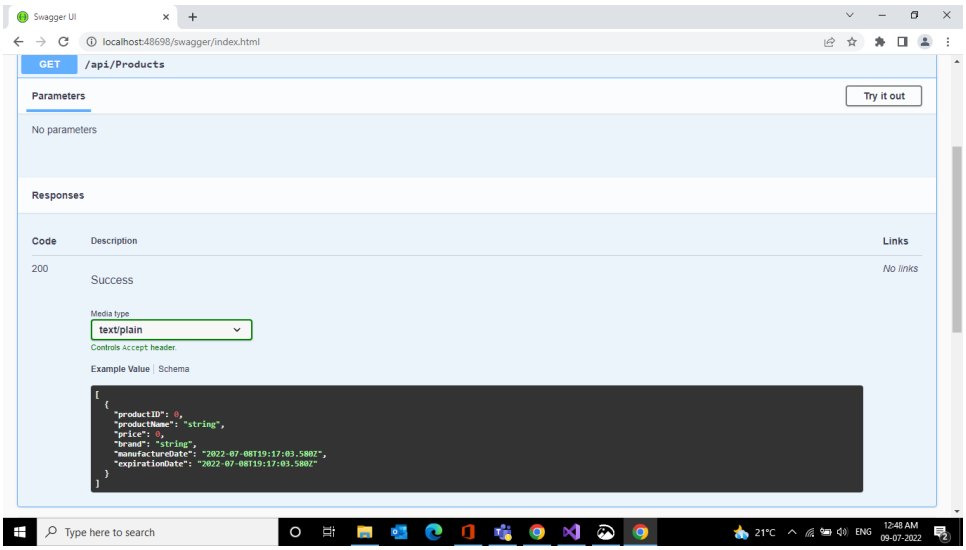
Advantages:

- Dependency Free - The UI works in any development environment, be it locally or in the web
- Human Friendly - Allow end developers to effortlessly interact and try out every single operation your API exposes for easy consumption
- Easy to Navigate - Quickly find and work with resources and endpoints with neatly categorized documentation
- All Browser Support - Cater to every possible scenario with Swagger UI working in all major browsers.

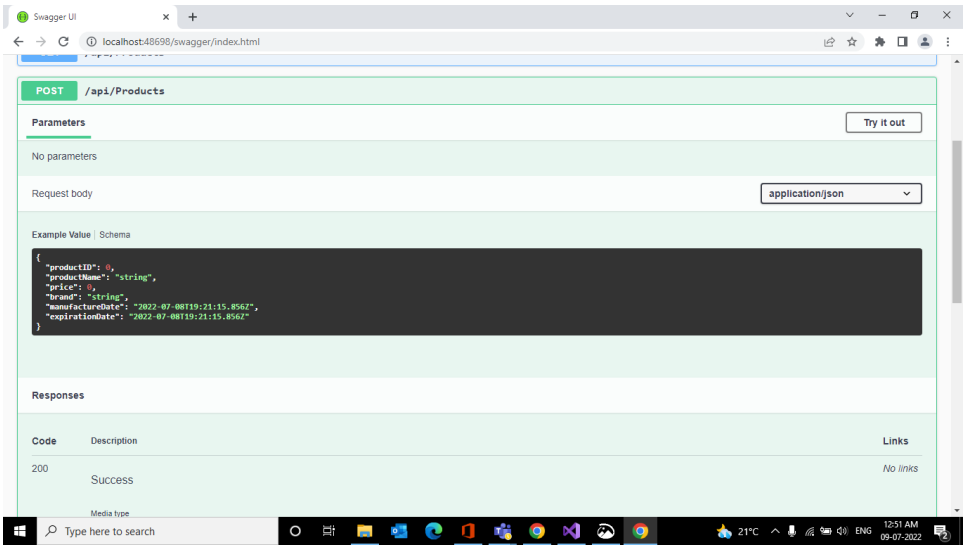
- Fully Customizable - Style and tweak your Swagger UI the way you want with full source code access.
- Complete OAS Support - Visualize APIs defined in Swagger 2.0 or OAS



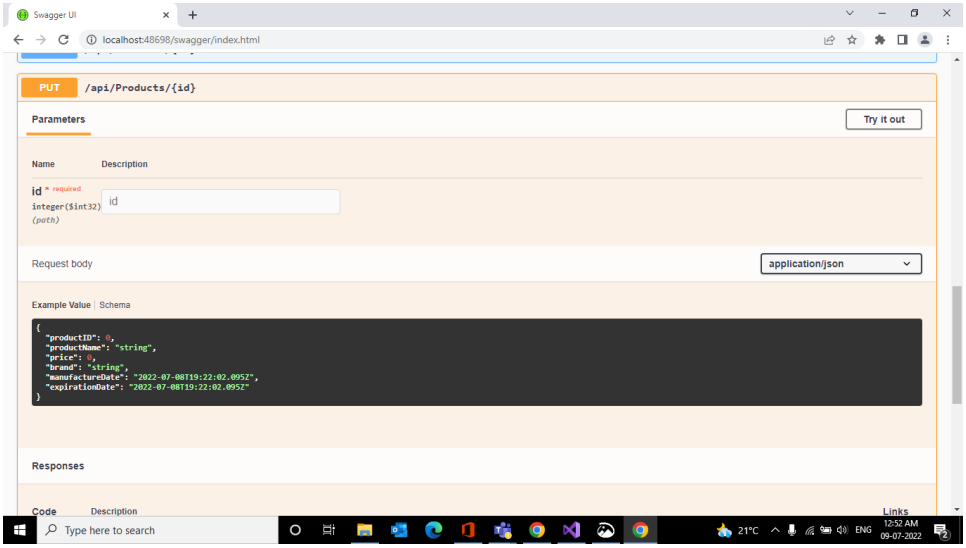
GET



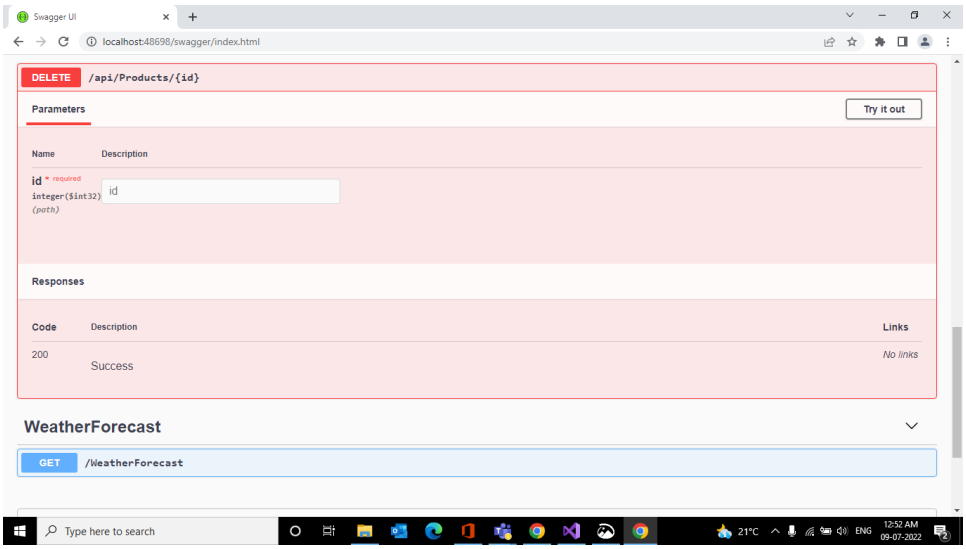
Post


Swagger UI
localhost:48698/swagger/index.html
POST
/api/Products
Parameters
Try it out
No parameters
Request body
application/json
Example Value | Schema
{
"productID": 0,
"productName": "string",
"price": 0,
"brand": "string",
"manufactureDate": "2022-07-08T19:21:15.856Z",
"expirationDate": "2022-07-08T19:21:15.856Z"
}
Responses
Code
Description
Links
200
Success
No links
Media type
Type here to search
21°C
ENG
12:51 AM
09-07-2022

PUT


Swagger UI
localhost:48698/swagger/index.html
PUT
/api/Products/{id}
Parameters
Try it out
Name
Description
id * required
integer($int32)
(path)
id
Request body
application/json
Example Value | Schema
{
"productID": 0,
"productName": "string",
"price": 0,
"brand": "string",
"manufactureDate": "2022-07-08T19:22:02.095Z",
"expirationDate": "2022-07-08T19:22:02.095Z"
}
Responses
Code
Description
Links
Type here to search
21°C
ENG
12:52 AM
09-07-2022

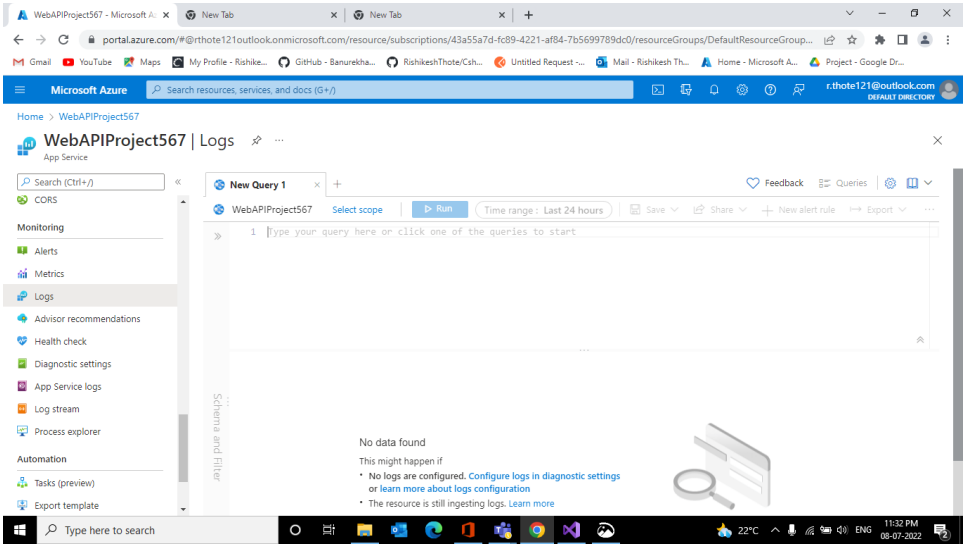
DELETE



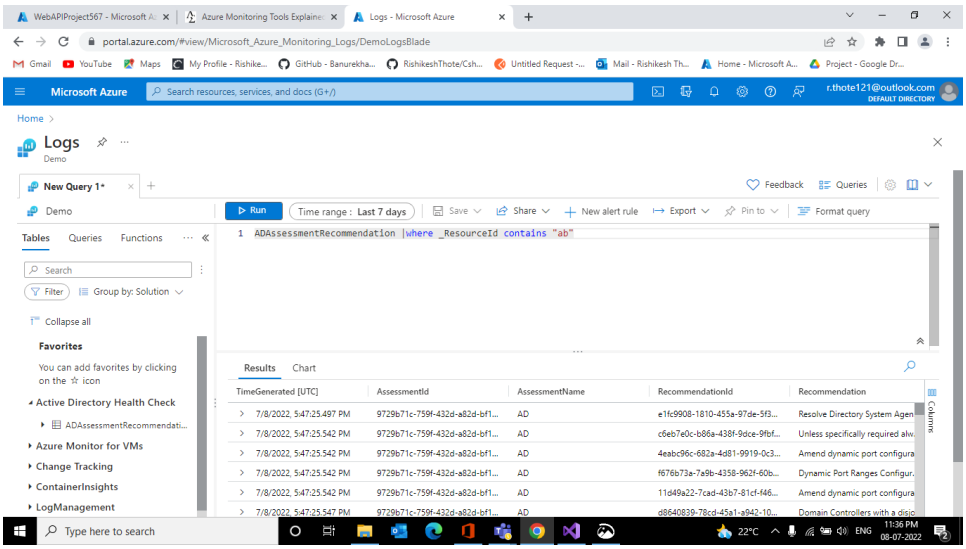
6.Work with Log Analytics with the sample logs available

Log Analytics is a tool in the Azure portal to edit and run log queries from data collected by Azure Monitor logs and interactively analyze their results. You can use Log Analytics queries to retrieve records that match particular criteria, identify trends, analyze patterns, and provide various insights into your data.

- Select the Logs in Azure Portal.



This is the simplest query that we can write. It just returns all the records in a table. Run it by selecting the Run button or by selecting Shift Enter with the cursor positioned anywhere in the query text and Select Run to return the results.


WebAPIProject567 - Microsoft A...
Azure Monitoring Tools Explained
Logs - Microsoft Azure
portal.azure.com/#view/Microsoft_Azure_Monitoring_Logs/DemoLogsBlade
Microsoft Azure
Search resources, services, and docs (G+/)
r.thote121@outlook.com
DEFAULT DIRECTORY
Home
Logs
Demo
New Query 1*
Feedback
Queries
Demo
Run
Time range : Last 7 days
Save
Share
New alert rule
Export
Pin to
Format query
Tables
Queries
Functions
Search
Filter
Group by: Solution
Collapse all
Favorites
You can add favorites by clicking on the ☆ icon
Active Directory Health Check
ADAssessmentRecommendati...
Azure Monitor for VMs
Change Tracking
ContainerInsights
LogManagement
1 ADAssessmentRecommendation |where _ResourceId contains "ab"
Results
Chart
TimeGenerated [UTC]
AssessmentId
AssessmentName
RecommendationId
Recommendation
7/8/2022, 5:47:25.497 PM
9729b71c-759f-432d-a82d-bf1...
AD
e1fc9908-1810-455a-97de-5f3...
Resolve Directory System Agen
7/8/2022, 5:47:25.542 PM
9729b71c-759f-432d-a82d-bf1...
AD
c6eb7e0c-b86a-438f-9dce-9fbf...
Unless specifically required alw
7/8/2022, 5:47:25.542 PM
9729b71c-759f-432d-a82d-bf1...
AD
4eabc96c-682a-4d81-9919-0c3...
Amend dynamic port configura
7/8/2022, 5:47:25.542 PM
9729b71c-759f-432d-a82d-bf1...
AD
f676b73a-7a9b-4358-962f-60b...
Dynamic Port Ranges Configur
7/8/2022, 5:47:25.542 PM
9729b71c-759f-432d-a82d-bf1...
AD
11d49a22-7cad-43b7-81cf-f46...
Amend dynamic port configura
7/8/2022, 5:47:25.547 PM
9729b71c-759f-432d-a82d-bf1...
AD
d8640839-78cd-45a1-a942-10...
Domain Controllers with a dis
Columns
Type here to search
22°C
ENG
11:36 PM
08-07-2022