

# 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 Operation. 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

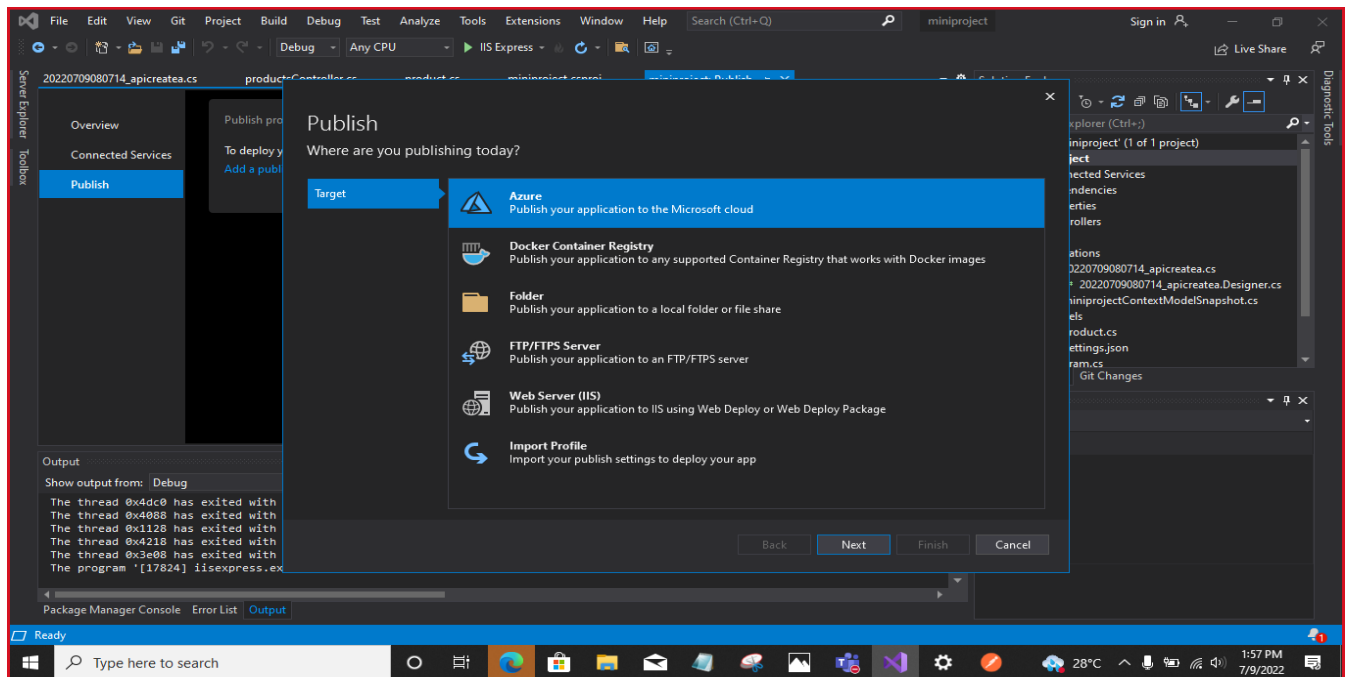
Create a jQuery and AJAX Client to consume the Web API and show the result.

## Azure Hosting:

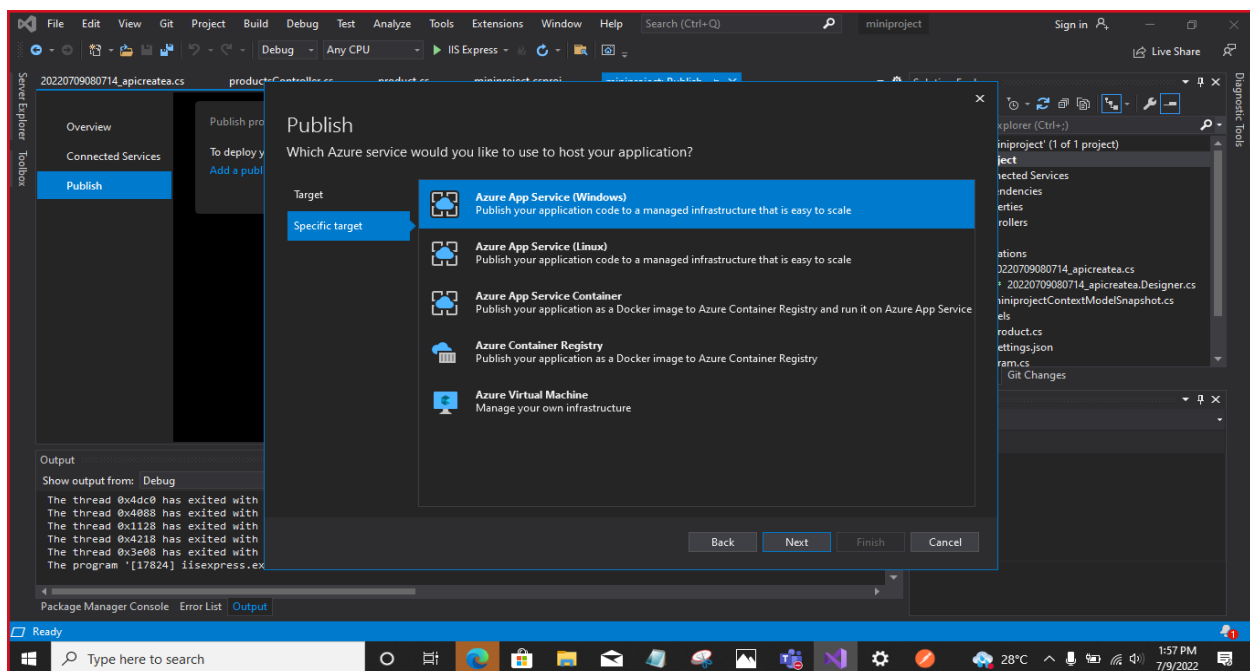
- Host the web api in azure and consume the same using jQuery Client.
- Configure Scale out by adding rules for custom scaling
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- Configure Application Insights for the project
- Configure swagger for the api
- Work with Log Analytics with the sample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

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

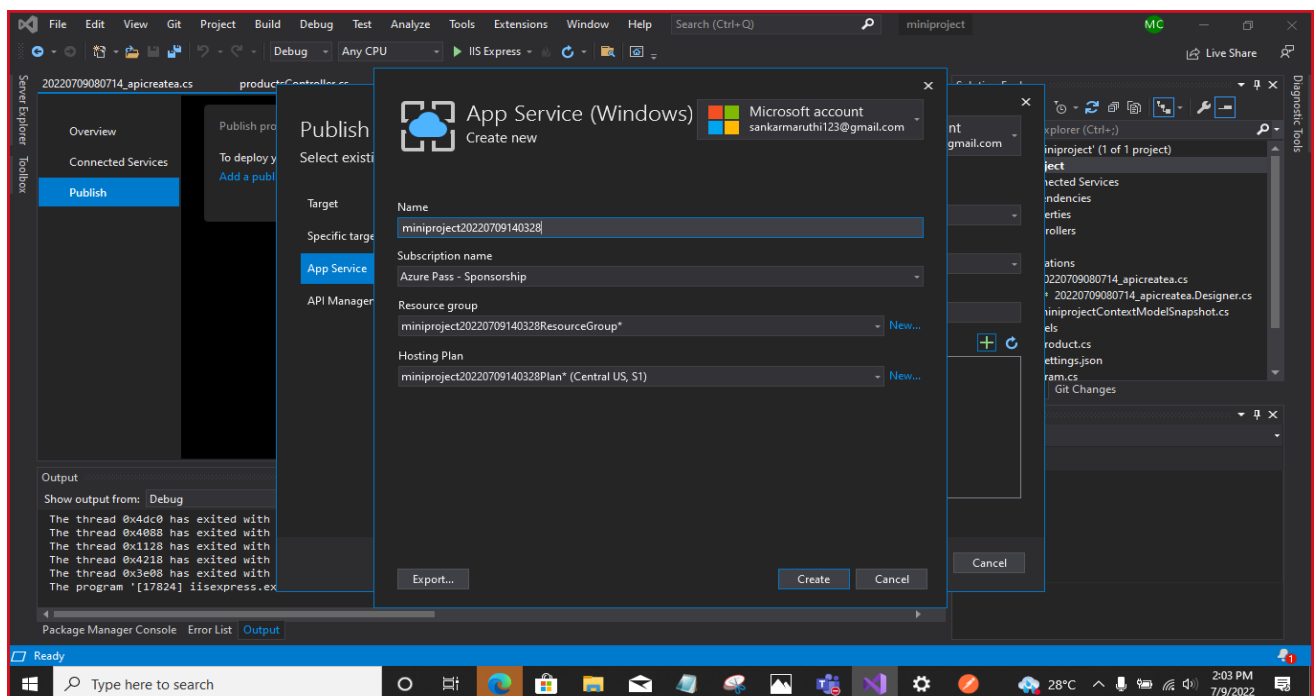
◆ In the public, select azure and select the Next button.



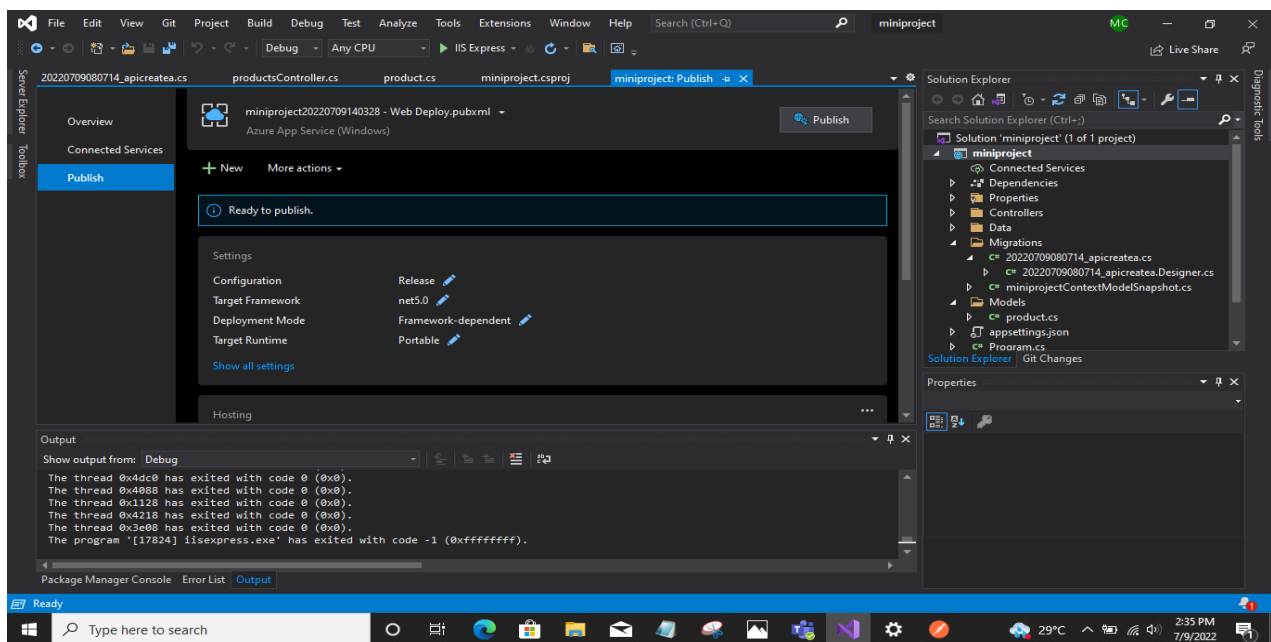
- ◆ Select Azure App Service (Windows) and Select the Next Button.



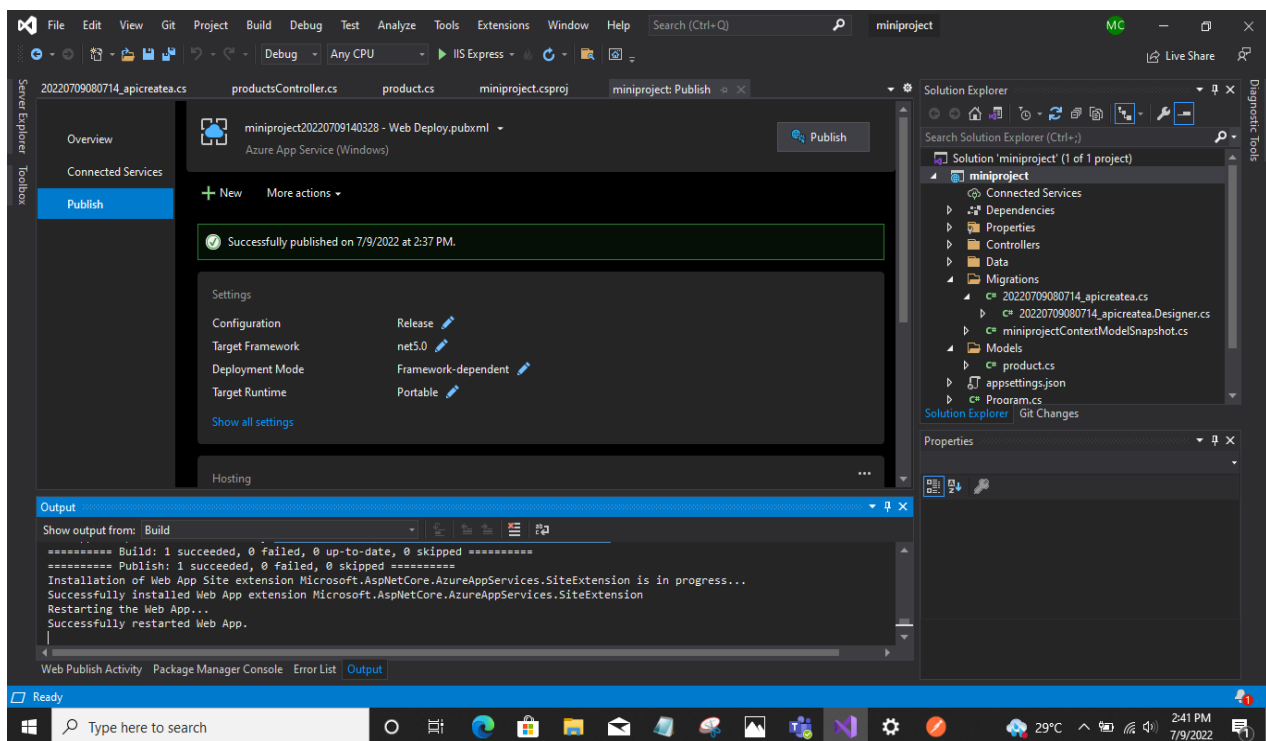
- ◆ Select App Service (Windows) and Select the Create Button.



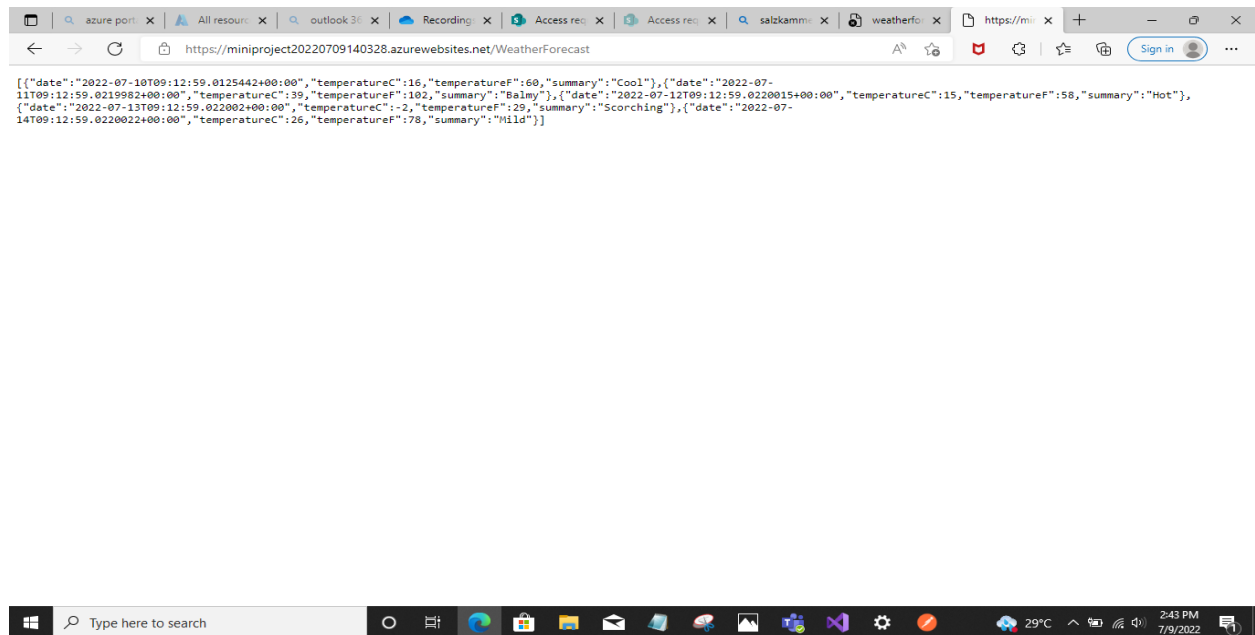
- ◆ Here We are Going To Ready To Publish and Select Publish Button.



- ◆ After selecting Public Button, It Has successfully Published.

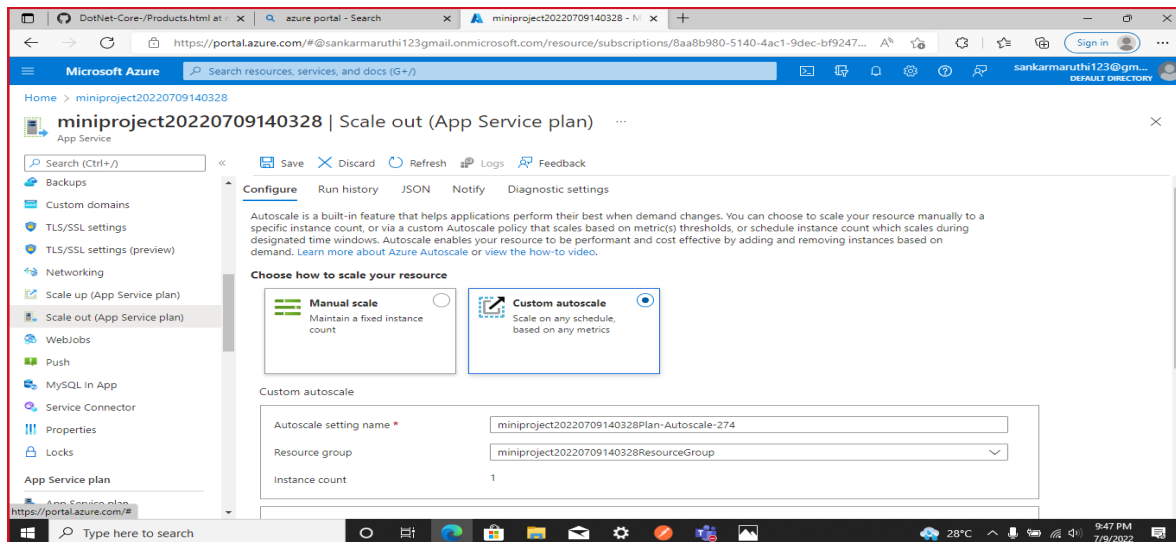


- ◆ After publishing, it can be created on a web page as WeatherForecast, then all the Required Data is Visible.

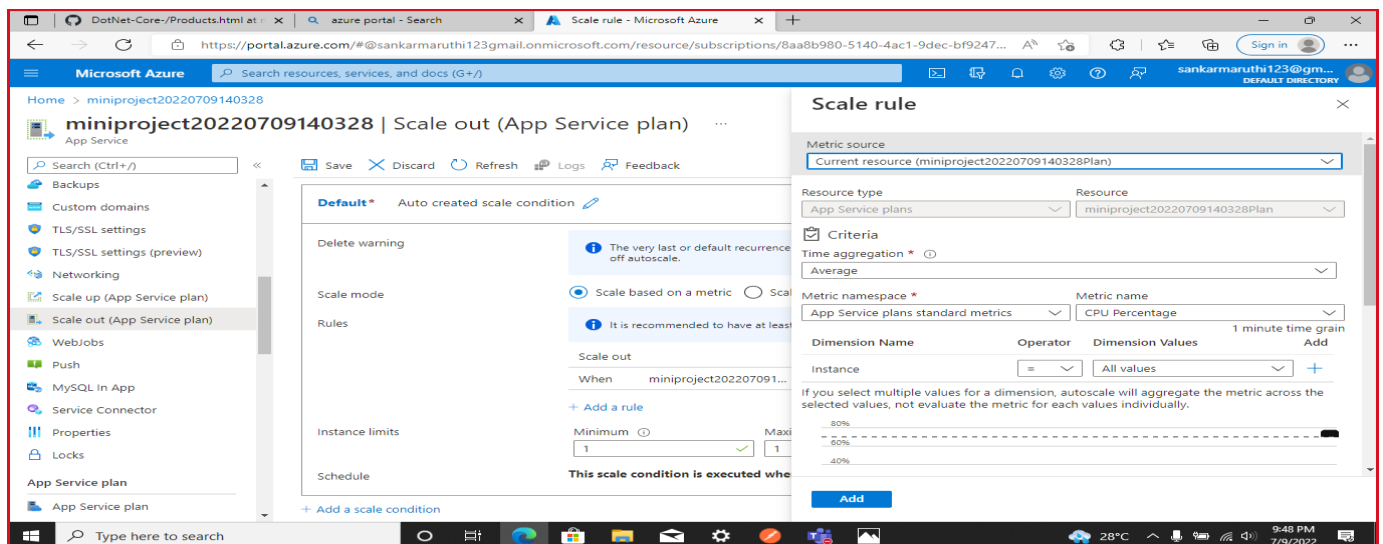


## 2. Configure Scale Out By Adding Rules For Custom scaling

- ◆ Switch to the Scale out(App service plan) that you scale up by changing the pricing tier of the App Service Plan that your app belongs to scale out.
- ◆ Increase the number of VM instances that run your app.



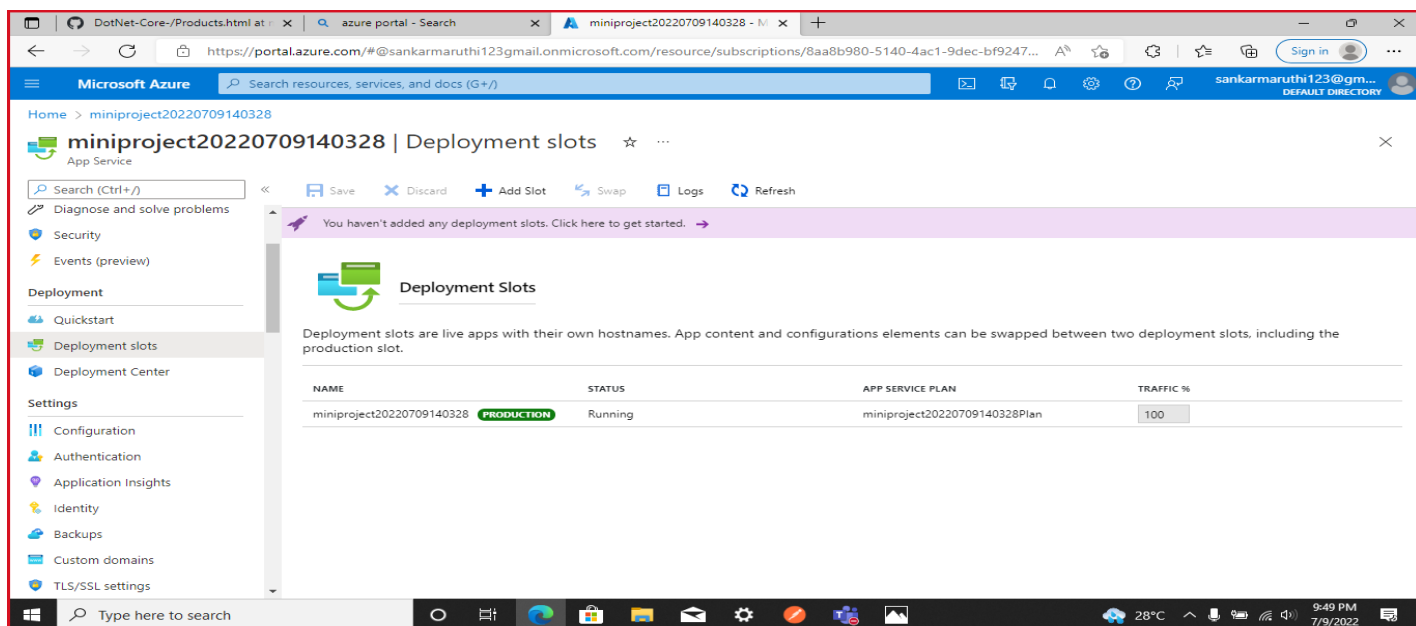
- ◆ After that click the scale out then scale role page will be open then after select Add button.





### 3. Configure Deployment Slots for staging and Production

- ◆ Coming to the Deployment slots that allow your function app to run different instances that are defined as “slots”.
- ◆ Slots are different environments exposed via a publicly available end point.



The screenshot displays the Microsoft Azure portal interface for a function app named 'miniproject20220709140328'. The left-hand navigation pane includes sections for 'Deployment' (with links to Quickstart, Deployment slots, and Deployment Center) and 'Settings' (with links to Configuration, Authentication, Application Insights, Identity, Backups, Custom domains, and TLS/SSL settings). The main content area is titled 'miniproject20220709140328 | Deployment slots' and features a toolbar with 'Save', 'Discard', 'Add Slot', 'Swap', 'Logs', and 'Refresh' buttons. A purple banner at the top of the main area states, 'You haven't added any deployment slots. Click here to get started.' Below this, a 'Deployment Slots' section explains that these are live apps with their own hostnames and that content can be swapped between slots. A table lists the current deployment slot:

NAME	STATUS	APP SERVICE PLAN	TRAFFIC %
miniproject20220709140328	PRODUCTION Running	miniproject20220709140328Plan	100

The bottom of the image shows the Windows taskbar with the search bar, system tray, and a clock indicating 9:49 PM on 7/9/2022.

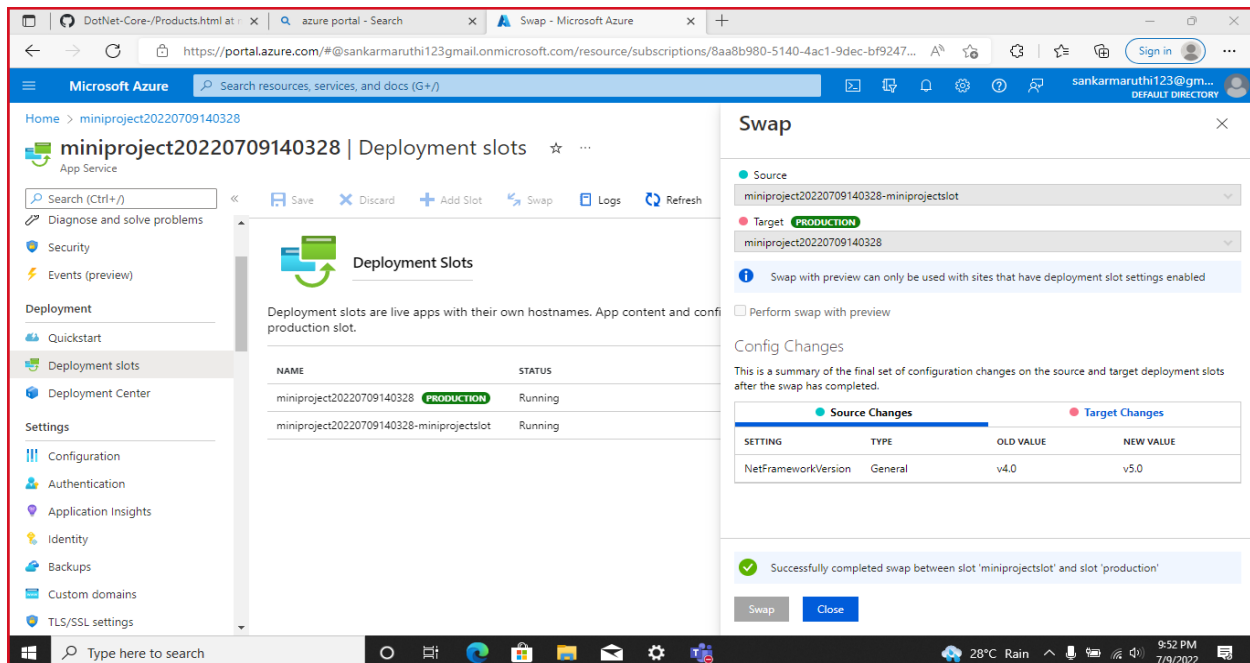
◆ After selecting Deployment slots then here we can add a slot for creating project, that instance is always mapped to the production slot, and you can swap instances assigned to a slot on demand.

The screenshot shows the Microsoft Azure portal interface. The main page displays the 'Deployment slots' section for the resource 'miniproject20220709140328'. A table lists the slots:

NAME	STATUS
miniproject20220709140328	PRODUCTION Running
miniproject20220709140328-miniprojectslot	Running

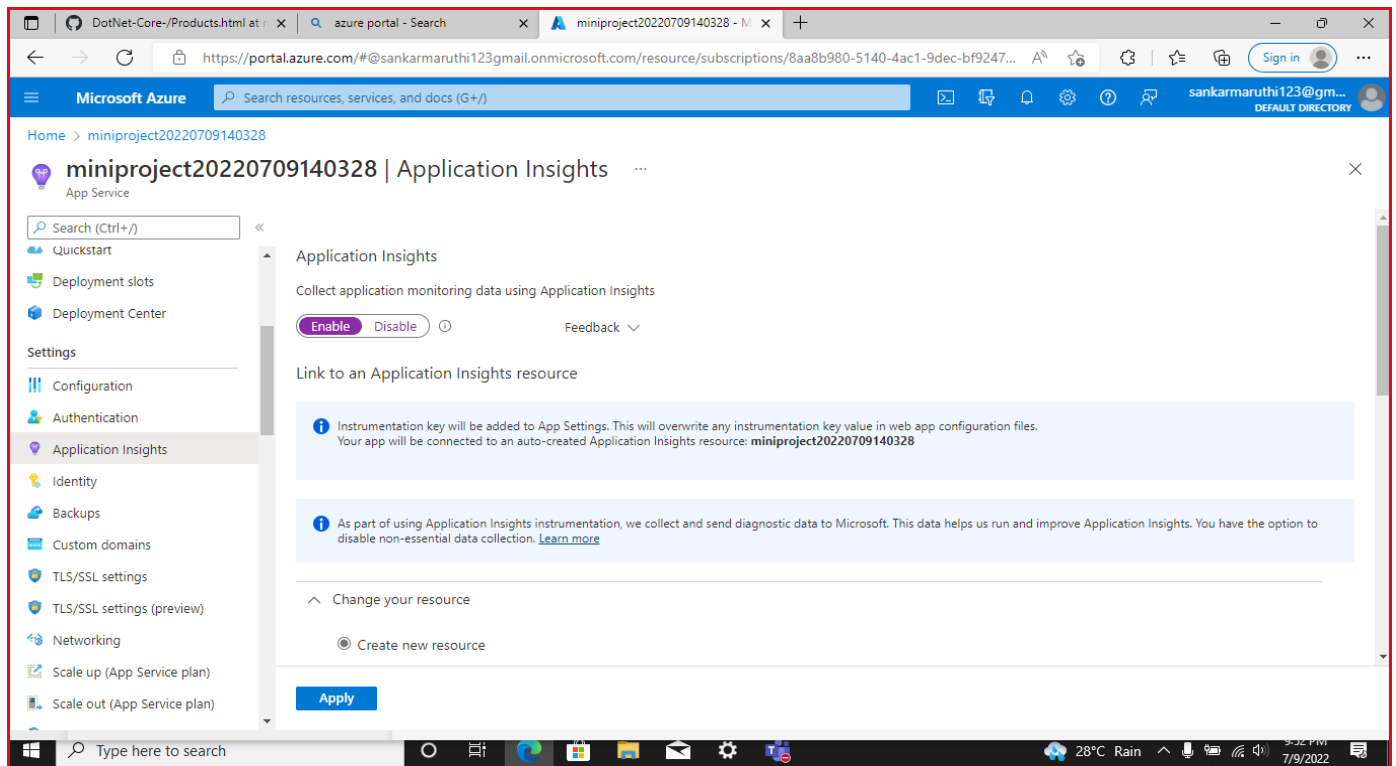
An 'Add a slot' dialog is open on the right. It shows the name 'miniprojectslot' and the clone settings 'Do not clone settings'. A success message at the bottom states: 'Successfully created slot 'miniprojectslot''. The Windows taskbar at the bottom shows the date and time as 9:50 PM on 7/9/2022.

- ◆ After Adding slot ten we are going to swap the slot, when auto swap is enabled from a slot into production, every time you push your code changes to that slot.
- ◆ App service automatically swaps the app into production afetr it's warmed up in the source slot.

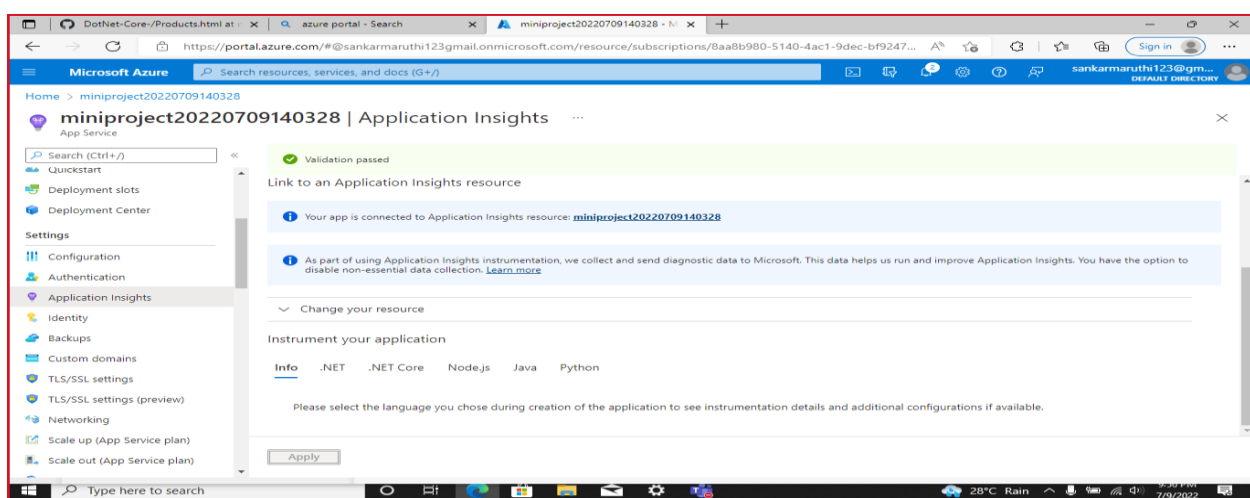


#### 4. Configure Application Insights for the Project

- ◆ Application Insights Provides extensible application performances management (APM) and monitoring for live web apps.

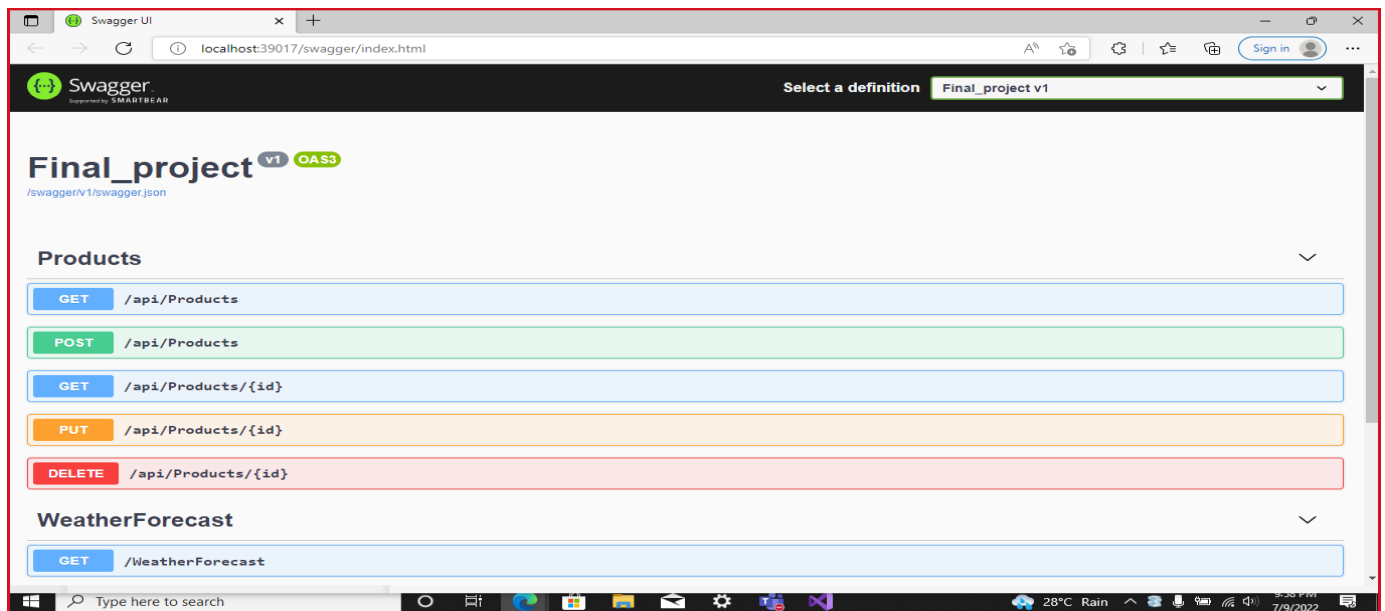


◆ Here we can validated by the application insights then it is successfully passed.



## 5. Configure Swagger for the api

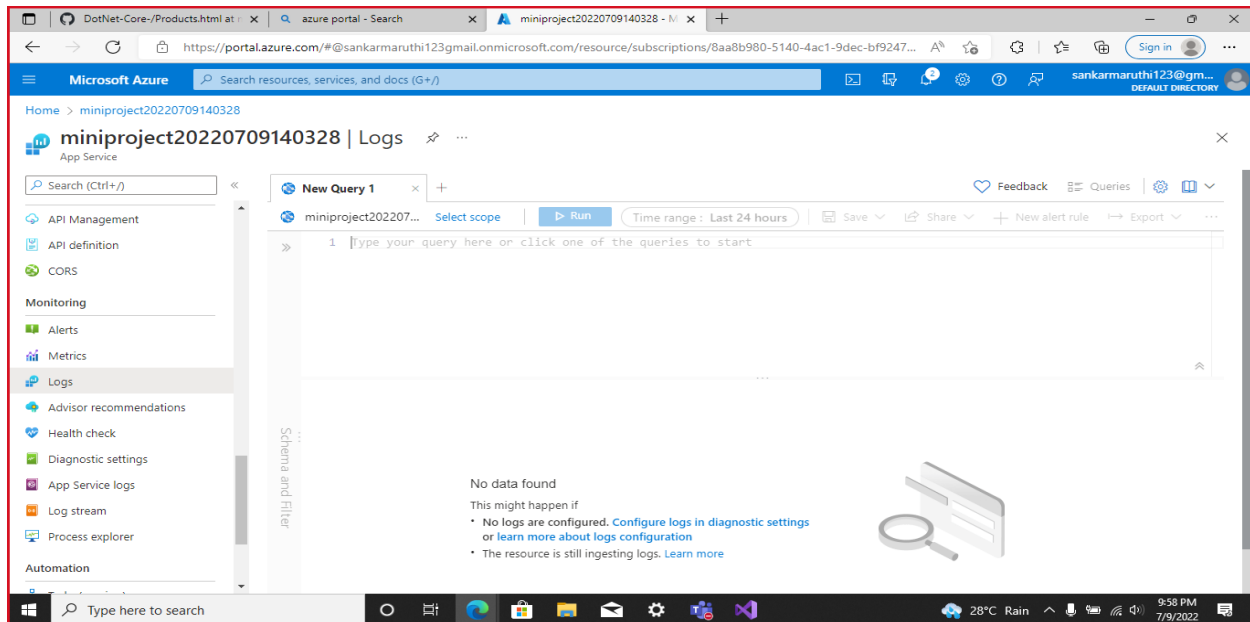
- ◆ Swagger helps users build, document, test and consumes, RESTful web services.
- ◆ It can be used both top down and bottom up API development approach.
- ◆ In the top down, or design first, method, Swagger can be used to design an API before any code Written.



## 6. Work with Log Analytics with the Sample logs available

- ◆ We click Log analytics page that is which tool is edit and run log queries from data collected by monitor logs and interactively analyze their results.

- ◆ You can use log analytics queries to retrieve record that match particular criteria , identify trends , analyze patterns, and provide various insights into your data.



- ◆ After that completion of monitoring of log analytics, we have to check logs
- ◆ Select the platform featured like resources then, we can monitoring, choose log streaming .
- ◆ Here we can open the web page and run log ,we have certain details of log analytics.

DotNet-Core-/Products.html x azure portal - Search x miniproject20220709140328 - M x Logs - Microsoft Azure x

https://portal.azure.com/#view/Microsoft\_Azure\_Monitoring\_Logs/DemoLogsBlade

Microsoft Azure Search resources, services, and docs (G+/)

Home > Logs Demo

New Query 1\* x + Feedback Queries

Time range: Last 24 hours Run 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
- Azure Monitor for VMs
- Change Tracking
- ContainerInsights
- LogManagement
- Network Performance Monitor
- Security and Audit

```
1 ADAssessmentRecommendation
2 | where _ResourceId contains "ab"
```

Results Chart

TimeGenerated [UTC]	AssessmentId	AssessmentName	RecommendationId	Recommendation
> 7/8/2022, 5:47:25.497 PM	9729b71c-759f-432d-a82d-bf1d31b41fc3	AD	e1fc9908-1810-455a-97de-5f35738141eb	Resolve Directory System
> 7/8/2022, 5:47:25.542 PM	9729b71c-759f-432d-a82d-bf1d31b41fc3	AD	c6eb7e0c-b86a-438f-9dce-9fbf50293dc9	Unless specifically require
> 7/8/2022, 5:47:25.542 PM	9729b71c-759f-432d-a82d-bf1d31b41fc3	AD	4eabc96c-682a-4d81-9919-0c32af52aa3f	Amend dynamic port cor
> 7/8/2022, 5:47:25.542 PM	9729b71c-759f-432d-a82d-bf1d31b41fc3	AD	f676b73a-7a9b-4358-962f-60b4c3569536	Dynamic Port Ranges Co
> 7/8/2022, 5:47:25.542 PM	9729b71c-759f-432d-a82d-bf1d31b41fc3	AD	11d49a22-7cad-43b7-81cf-f466cf77189	Amend dynamic port cor
> 7/8/2022, 5:47:25.547 PM	9729b71c-759f-432d-a82d-bf1d31b41fc3	AD	d8640839-78cd-45a1-a942-10b536923f52	Domain Controllers with
> 7/8/2022, 5:47:25.547 PM	9729b71c-759f-432d-a82d-bf1d31b41fc3	AD	4bcc1c2a-4168-49b8-b5bb-1d1c10ec7796	Disable the Allow Replica

Type here to search 27°C Rain 10:01 PM 7/9/2022

6.