

DOTNET CORE-AZURE

MINI PROJECT

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

The Product Entity should have the following Properties:

- Product ID
- Product Name
- Price
- Brand
- ManufactureDate
- ExpirationDate

Use Data Annotations to

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

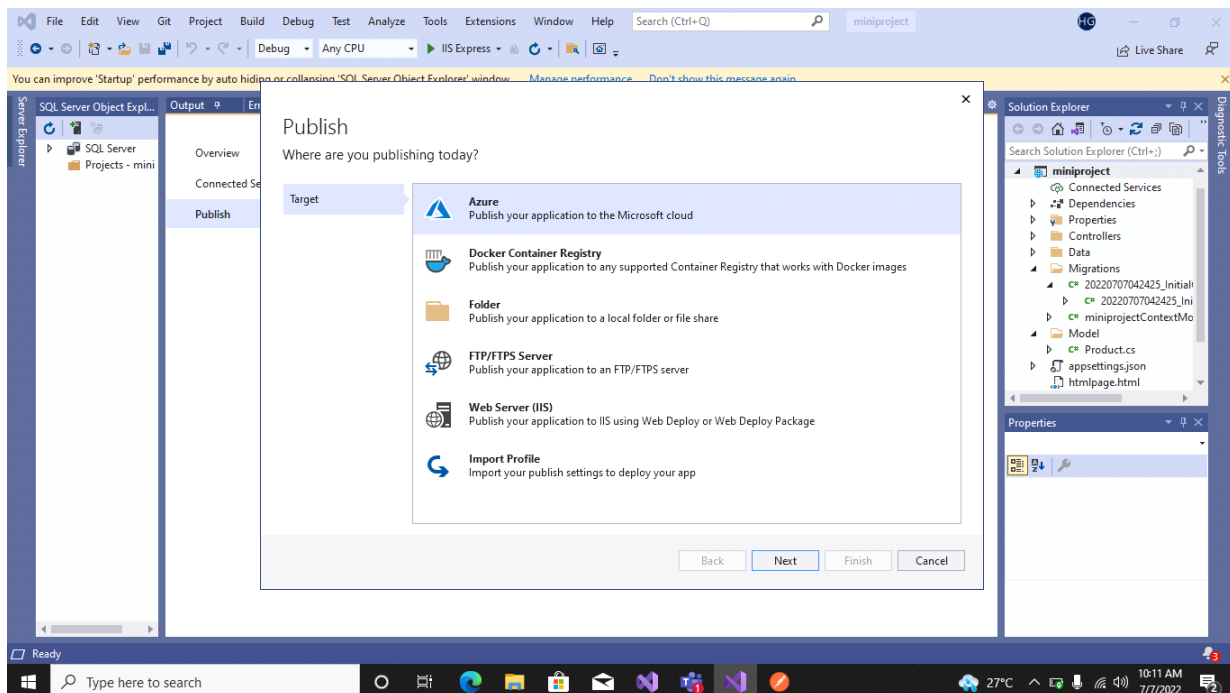
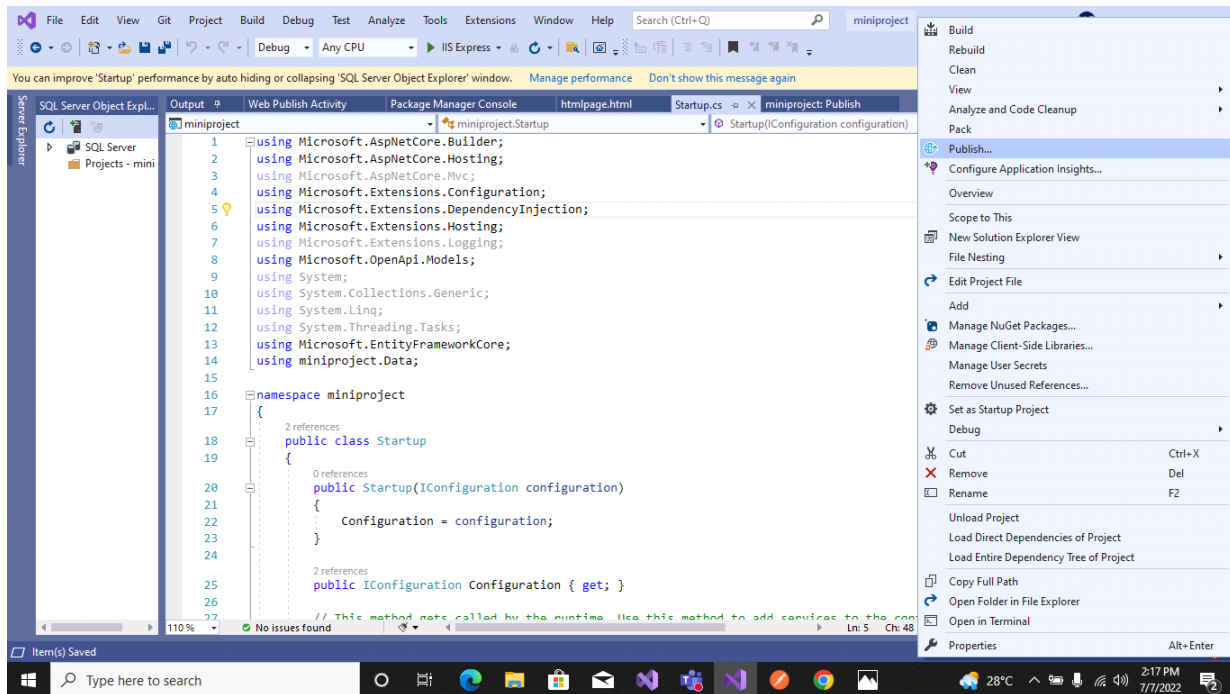
Create a JQuery and AJAX Client to consume the Web API and show the result.

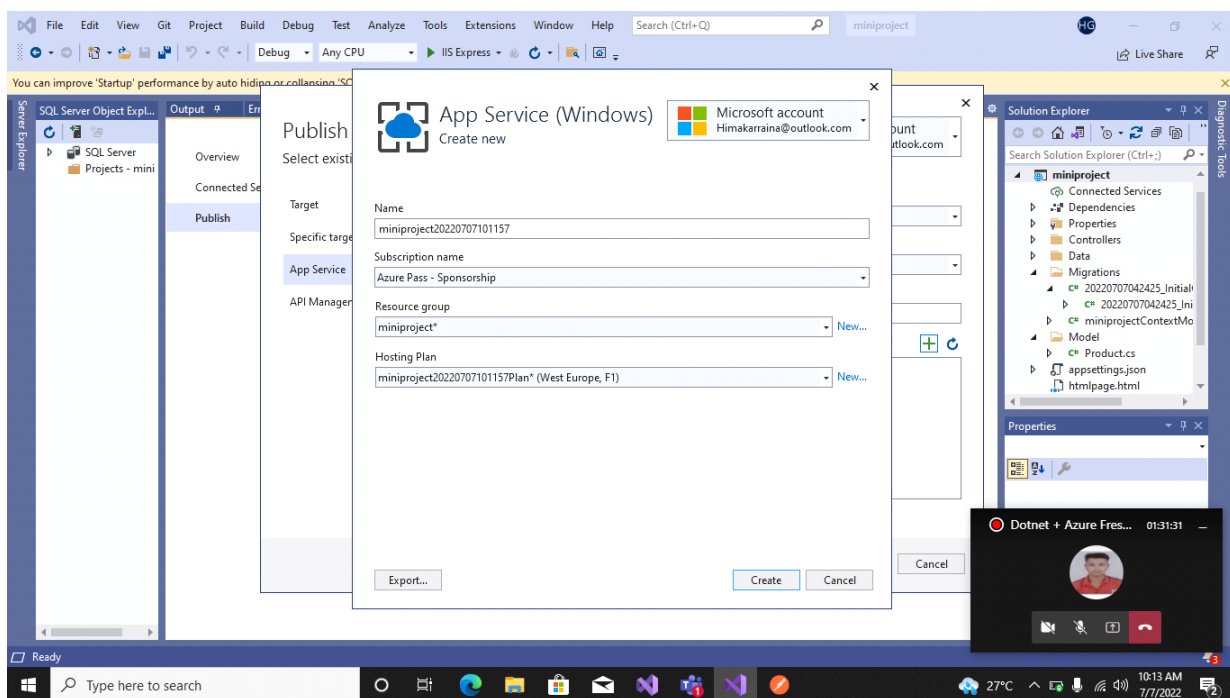
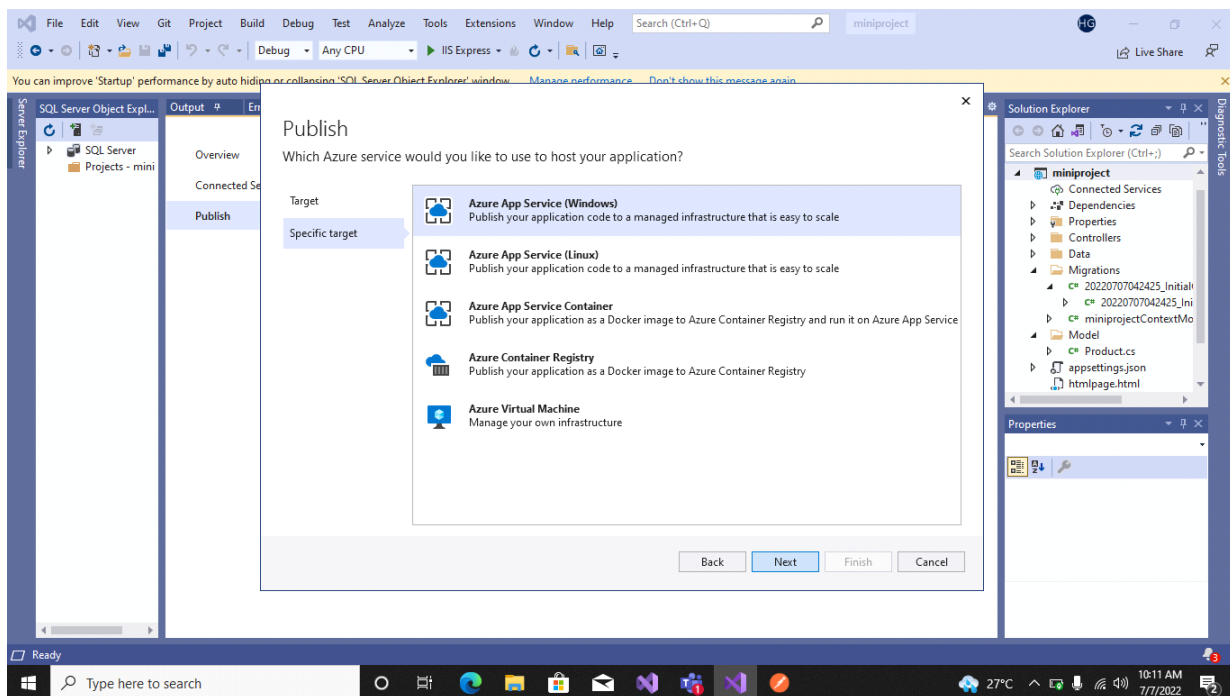
AZURE HOSTING:

- Host the Web api in azure and consume the same using JQuery Client.
- Configure Scale out by Dadding rules for custom scaling.
- configure Deployment slots for staging and Production.
- Configure Application Insights for the Project.
- Configure Swagger for the api.

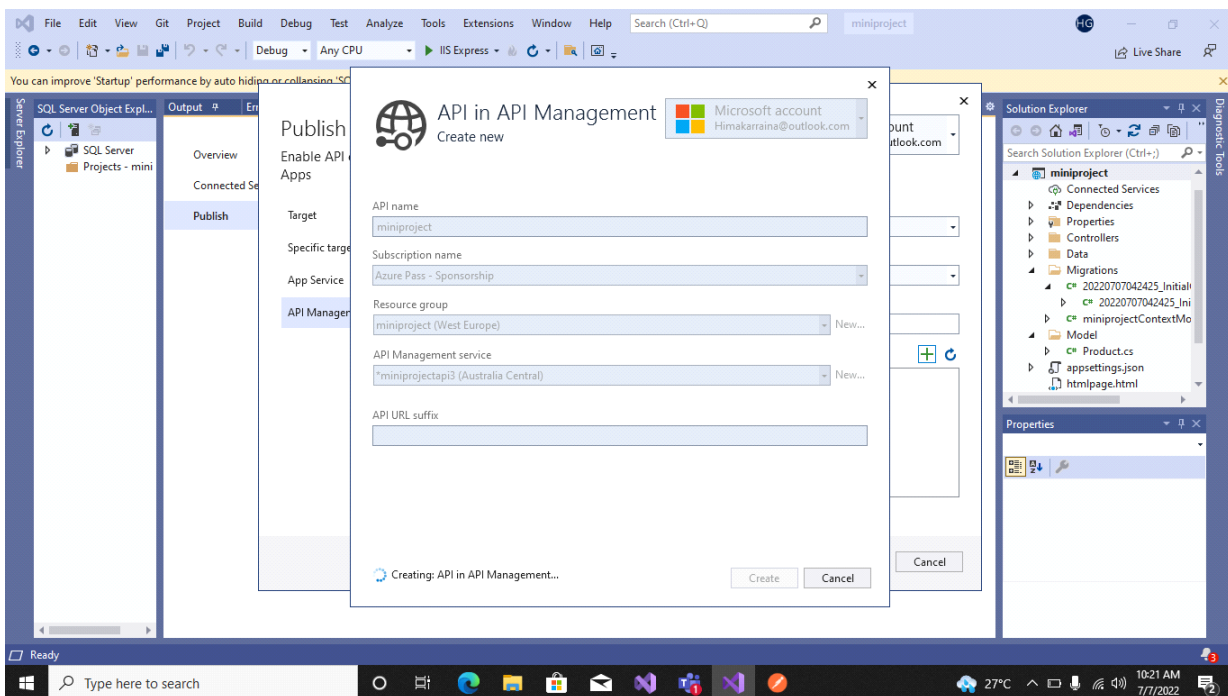
- Work with Log Analytics with the sample logs available.

1. Host the Web API in azure and consume the same using JQuery Client.

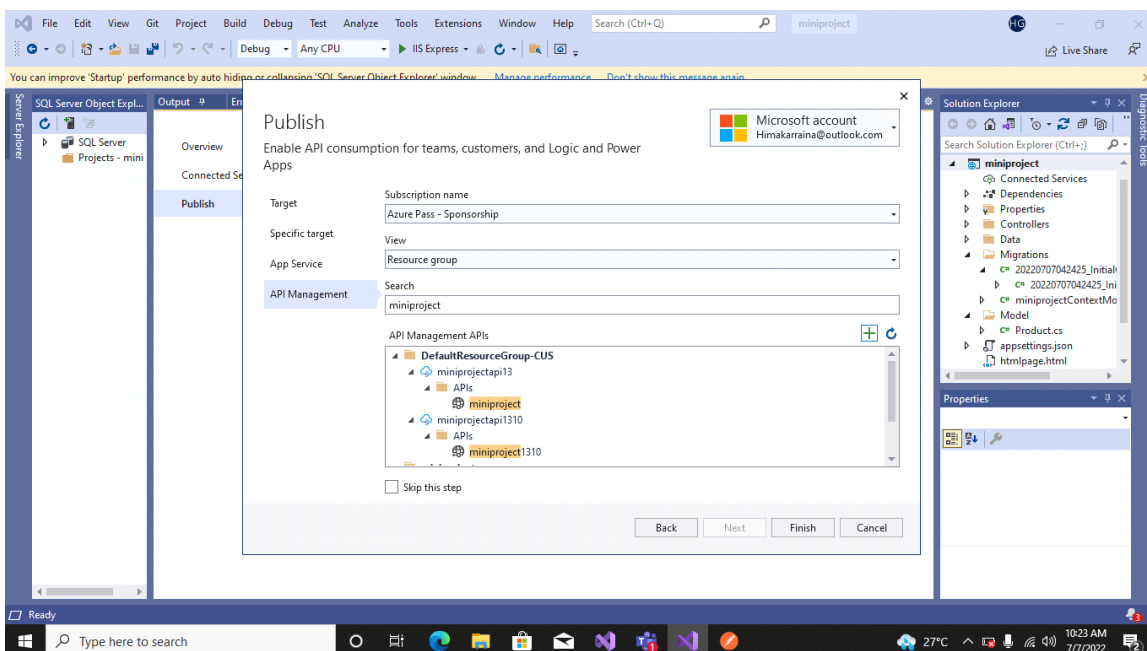




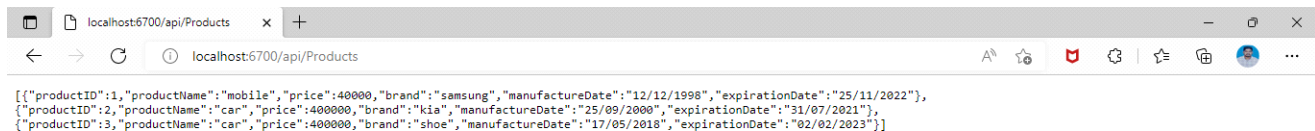
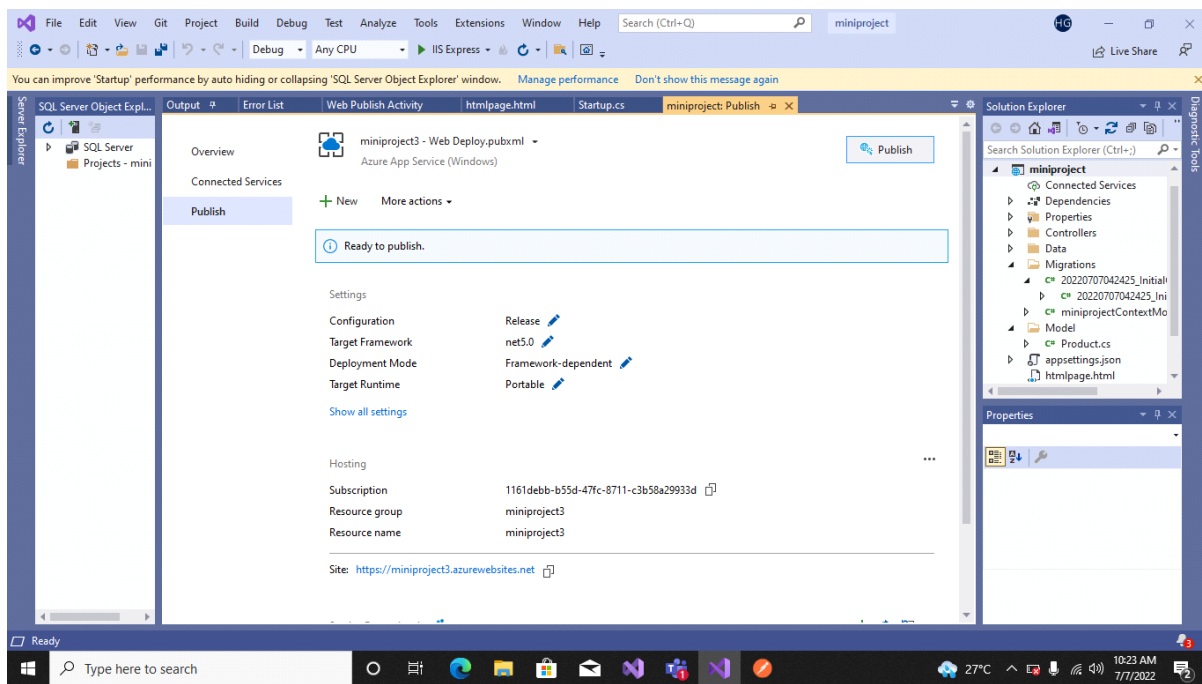
- create app service



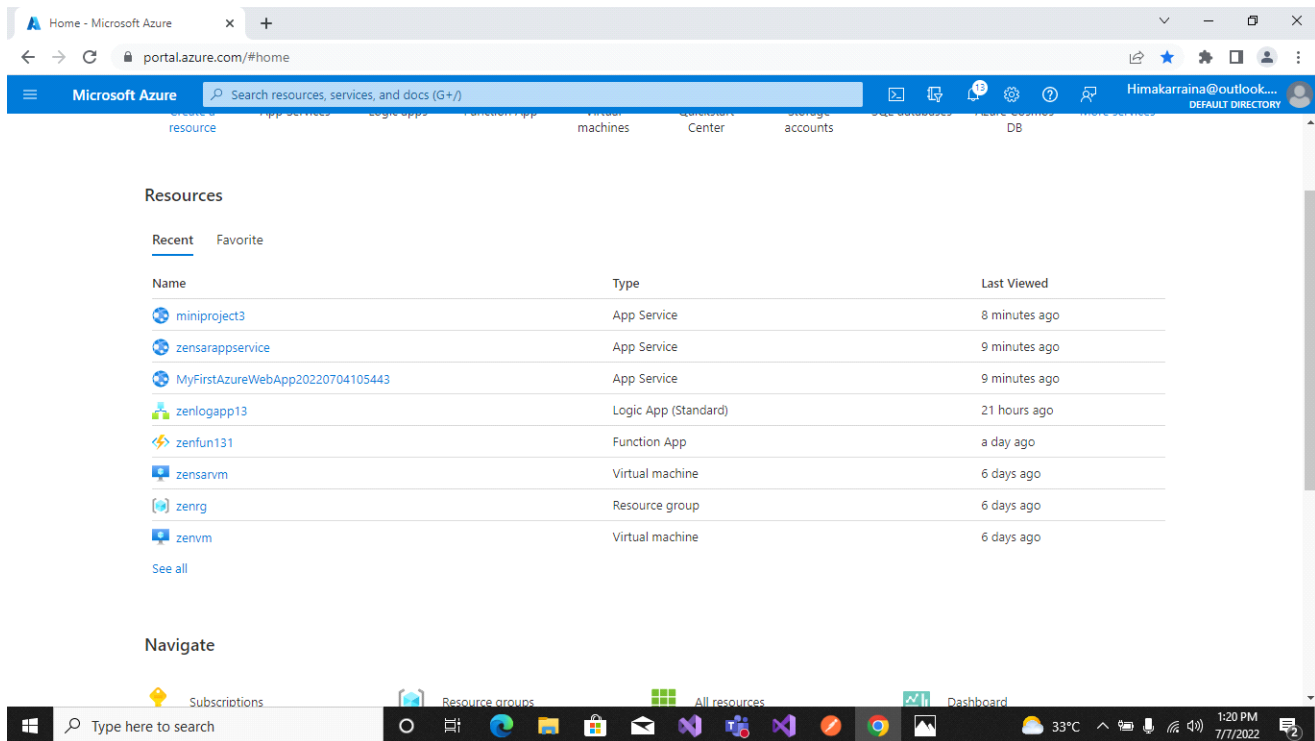
- create API in API Management click on new in both Resource group and api management.
- create api management.



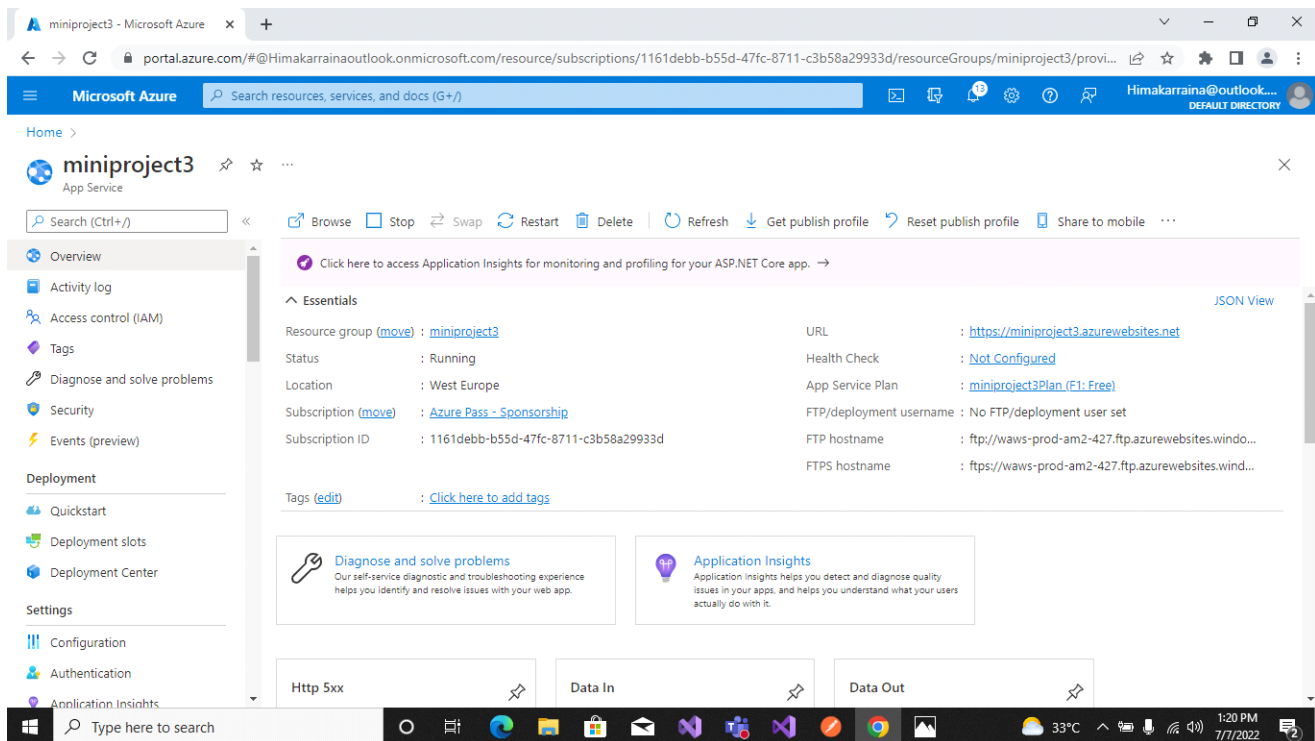
- click finish to publish



- After the publish done we can see Project in Azure.



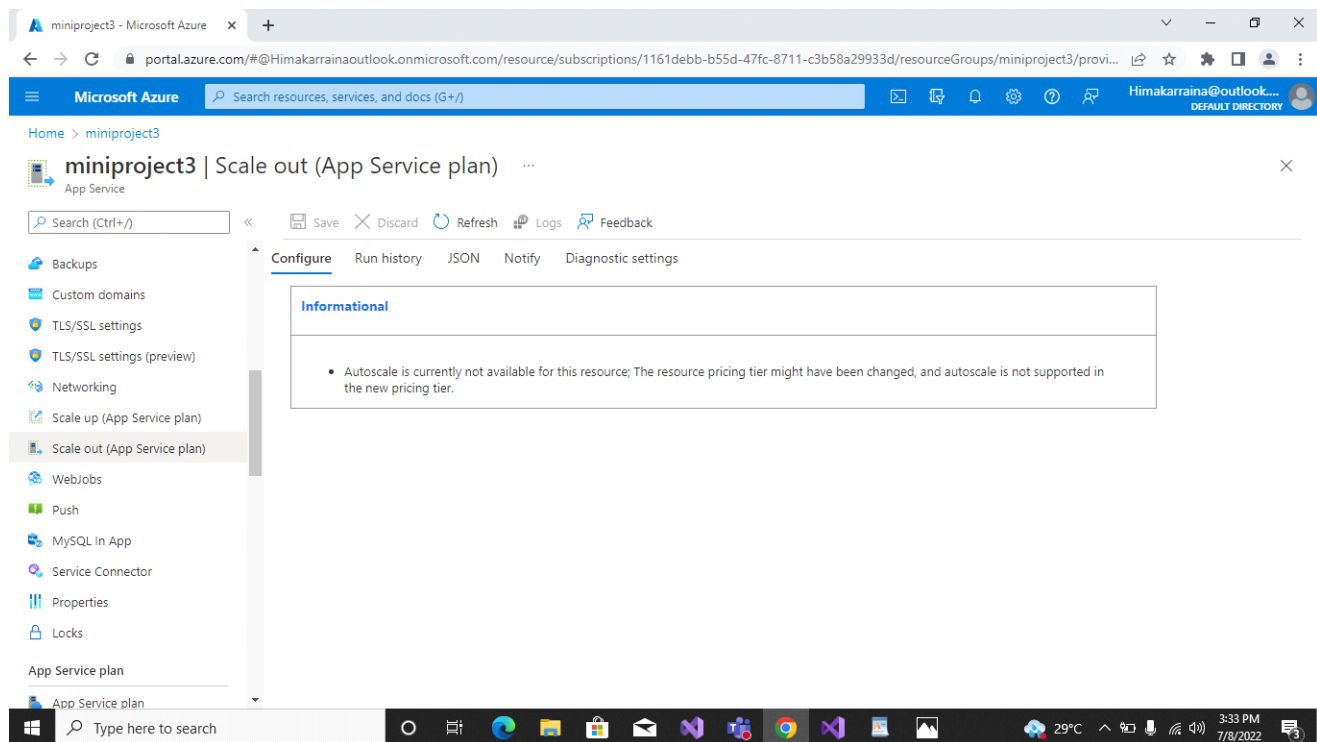
- Project name miniproject3



2. Configure scale out by adding rules for custom scaling

- search and select autoscale in the search bar.

- select custom autoscale.
- 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.
- depending upon on condition we can get no of machines we required.
- machine will get busy if custom autoscale cpu is more than 70%.
- instant count to 1 and cool down by 5 minutes.
- in scale out we add more units for better work.

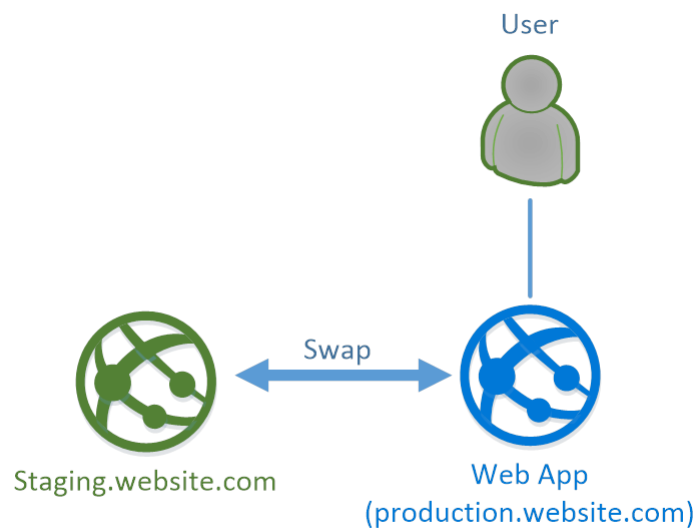


3.Configure Deployment slots for staging and Production.

Azure Function deployment slots allow your function app to run different instances called "slots".slots are different environments exposed via a publicly available endpoint.

- navigate to Deployment slots in the function app, and then select the slot name.
- Select Configure,and then select the setting name you want to stick with the current slot.

- select Deployment slot settings and then select OK.
- Once settings section disappears,select save to keep the changes.
- select Deployment slots,and then select +add slot.
- type the name of the slot and select add.
- select Deployment slots,and then select Swap.
- the operation may take a moment while the swap operation is executing.



PRODUCTION ENVIRONMENT

PRODUCTION SLOT

- home contact about
- today deal

STAGGING SLOT

- home
- contact us
- about us

miniproject3 | Deployment slots

App Service

Search (Ctrl+/)

Save Discard Add Slot Swap Logs Refresh

Overview
Activity log
Access control (IAM)
Tags
Diagnose and solve problems
Security
Events (preview)
Deployment
Quickstart
Deployment slots
Deployment Center
Settings

Upgrade to a standard or premium plan to add slots.

Deployment slots are live apps with their own hostnames. App content and configurations elements can be swapped between two deployment slots, including the production slot. [Learn more](#)

Upgrade

https://portal.azure.com/#@Himakarrainaoutlook.onmicrosoft.com/resource/subscriptions/1161debb-b55d-47fc-8711-c3b58a29933d/resourceGroups/miniproject3/provi...

deployment slots...html

Show all

Type here to search

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4. Configure Application Insights for the project

miniproject3 | Application Insights

App Service

Search (Ctrl+/)

Deployment
Quickstart
Deployment slots
Deployment Center
Settings
Configuration
Authentication
Application Insights
Identity
Backups
Custom domains
TLS/SSL settings
TLS/SSL settings (preview)

Application Insights

Collect application monitoring data using Application Insights

Enable Disable Feedback

Link to an Application Insights resource

Instrumentation key will be added to App Settings. This will overwrite any instrumentation key value in web app configuration files. Your app will be connected to an auto-created Application Insights resource: **miniproject3**

As part of using Application Insights instrumentation, we collect and send diagnostic data to Microsoft. This data helps us run and improve Application Insights. You have the option to disable non-essential data collection. [Learn more](#)

Change your resource

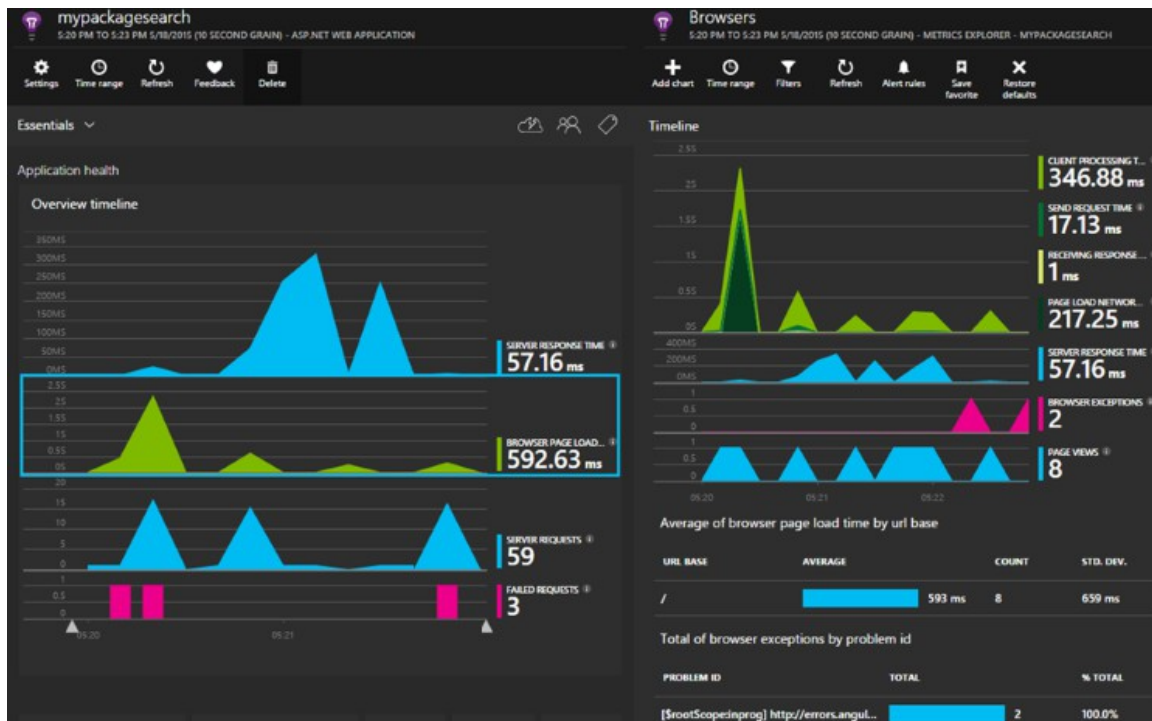
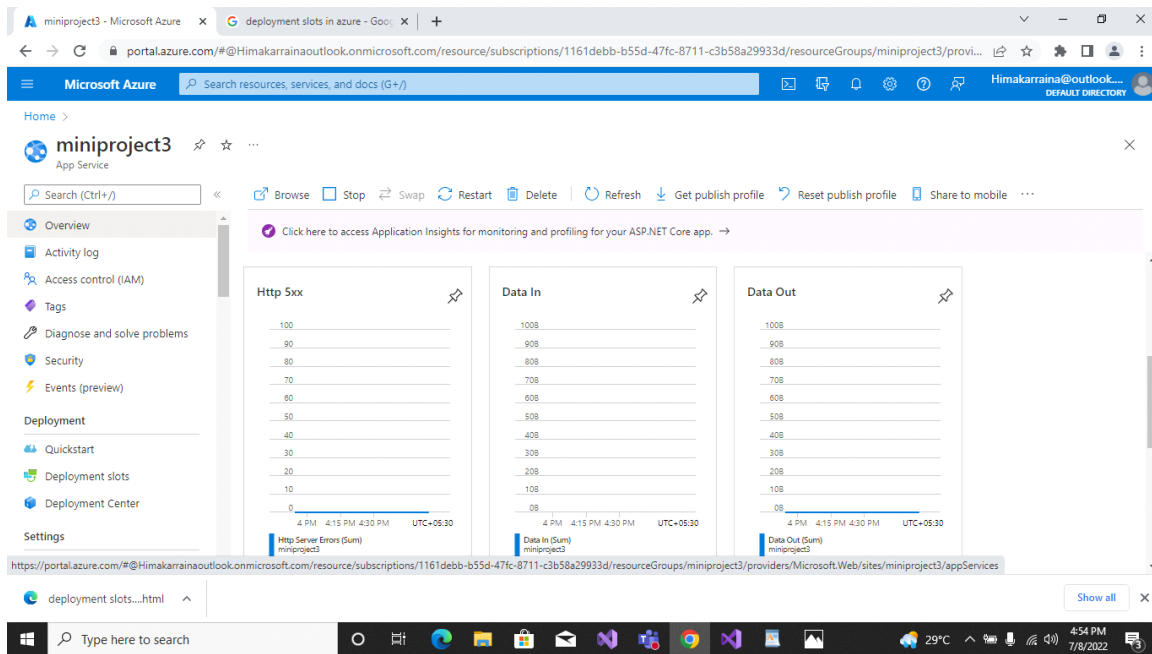
Apply

deployment slots...html

Show all

Type here to search

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- no need to write one line of code for this.
- tell your services it running.
- Data in and Data out,browse exeption without writing one line of code.
- logging mechanism in cloud.
- 200 to 300 different types of chart.

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 OpenAPI (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

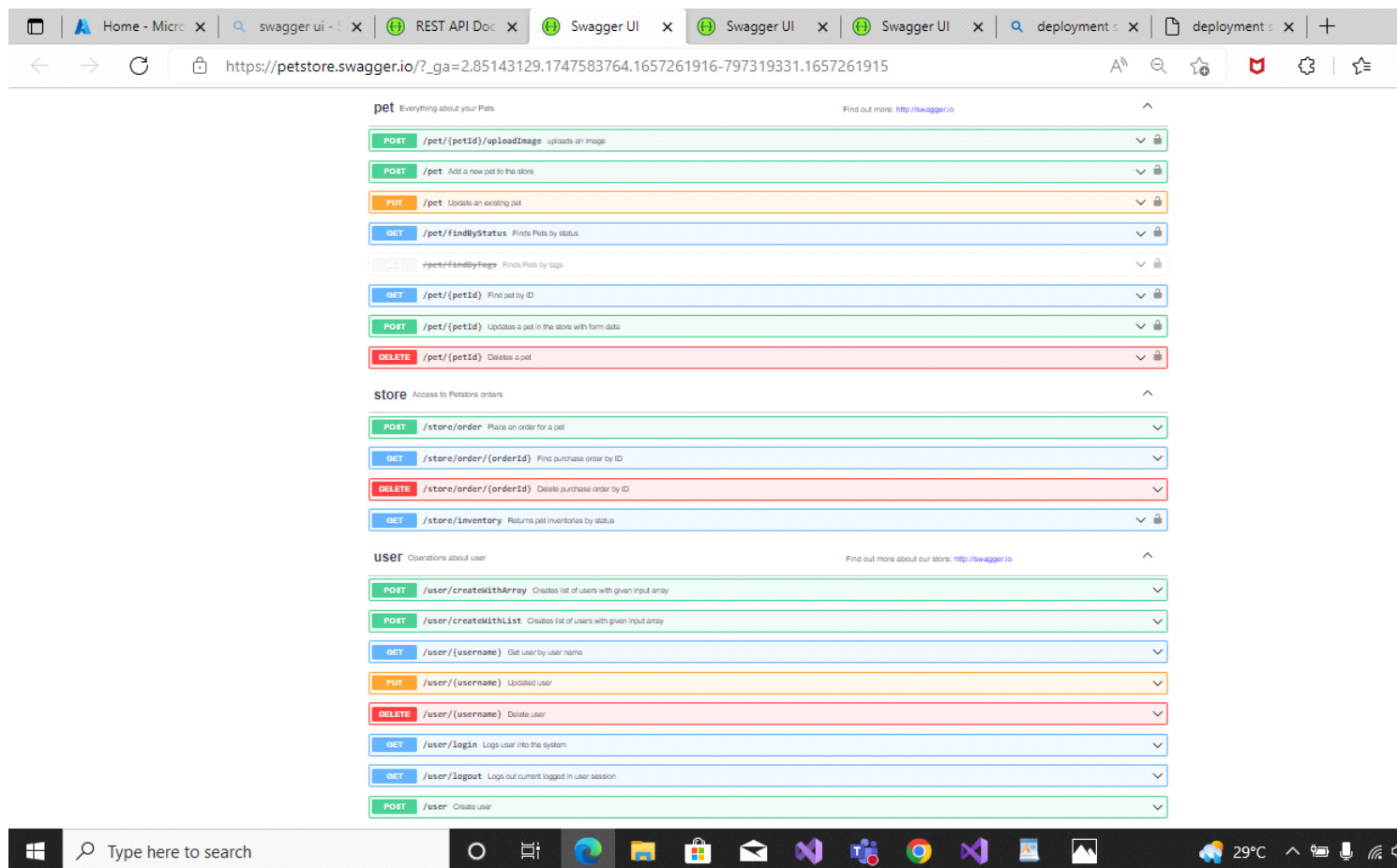
HUMAN FRIENDLY: Allow end developers to effortlessly interact and try out every single operation your API exposes for easy consumption

EASY TO NAVIGATE: Quickly find and work with resources and endpoints with neatly categorized documentation

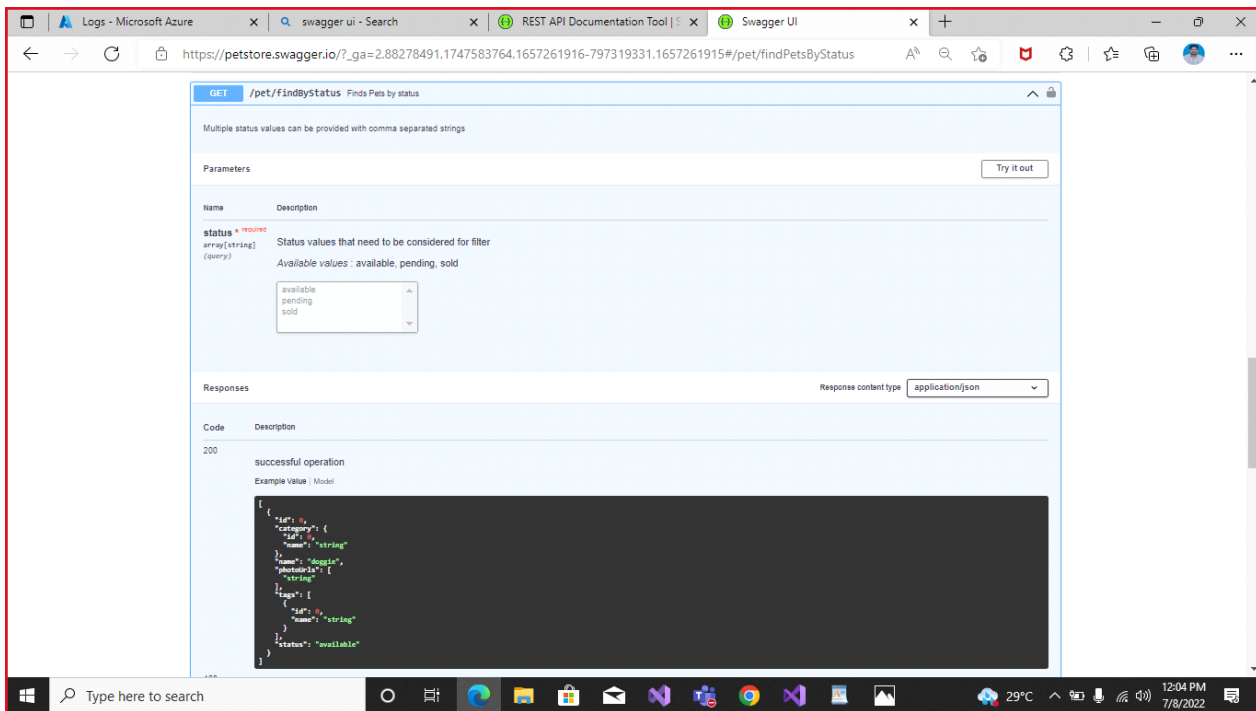
ALL BROWSER SUPPORT: Cater to every possible scenario with Swagger UI working in all major browsers

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 3.0



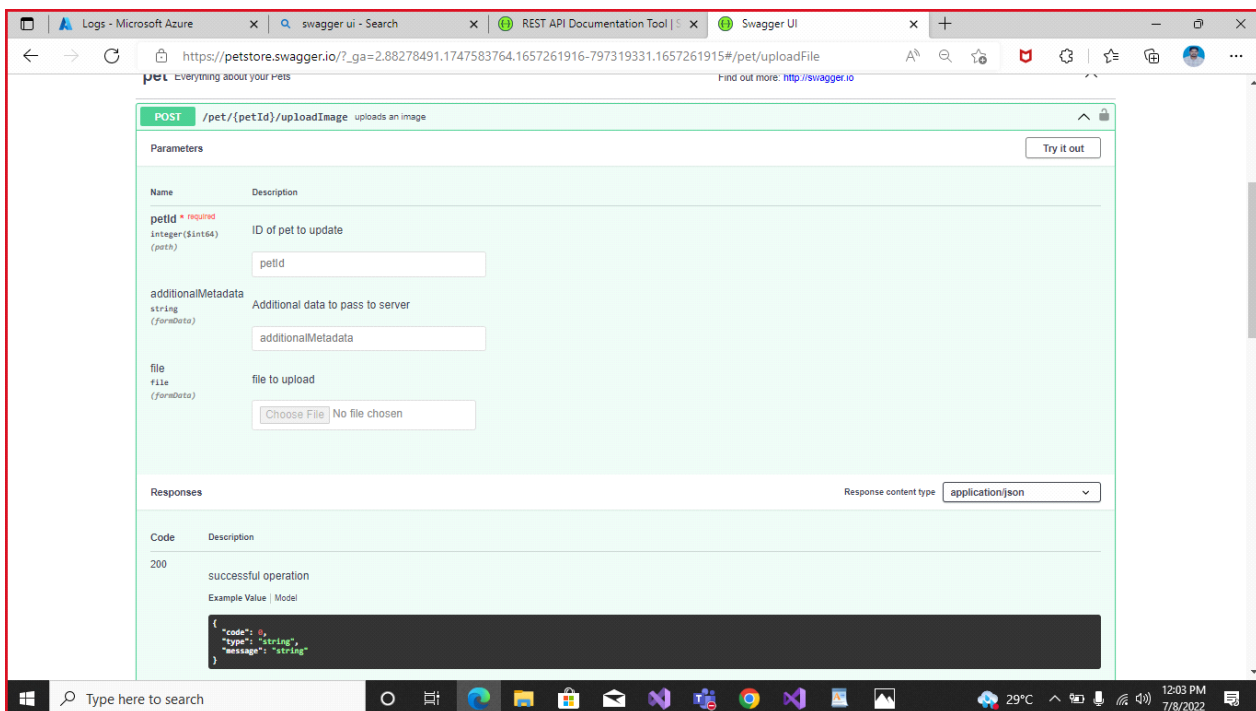
1. GET



The image shows the Swagger UI for the GET endpoint `/pet/findPetsByStatus`. The description states: "Finds Pets by status. Multiple status values can be provided with comma separated strings." The parameters section shows a required query parameter `status` of type `array[string]` with available values: `available`, `pending`, and `sold`. The responses section shows a 200 status code for a "successful operation" with an example JSON response:

```
{
  "id": 1,
  "category": {
    "id": 1,
    "name": "string"
  },
  "name": "string",
  "photoUrls": [
    "string"
  ],
  "tags": [
    {
      "id": "string",
      "name": "string"
    }
  ],
  "status": "available"
}
```

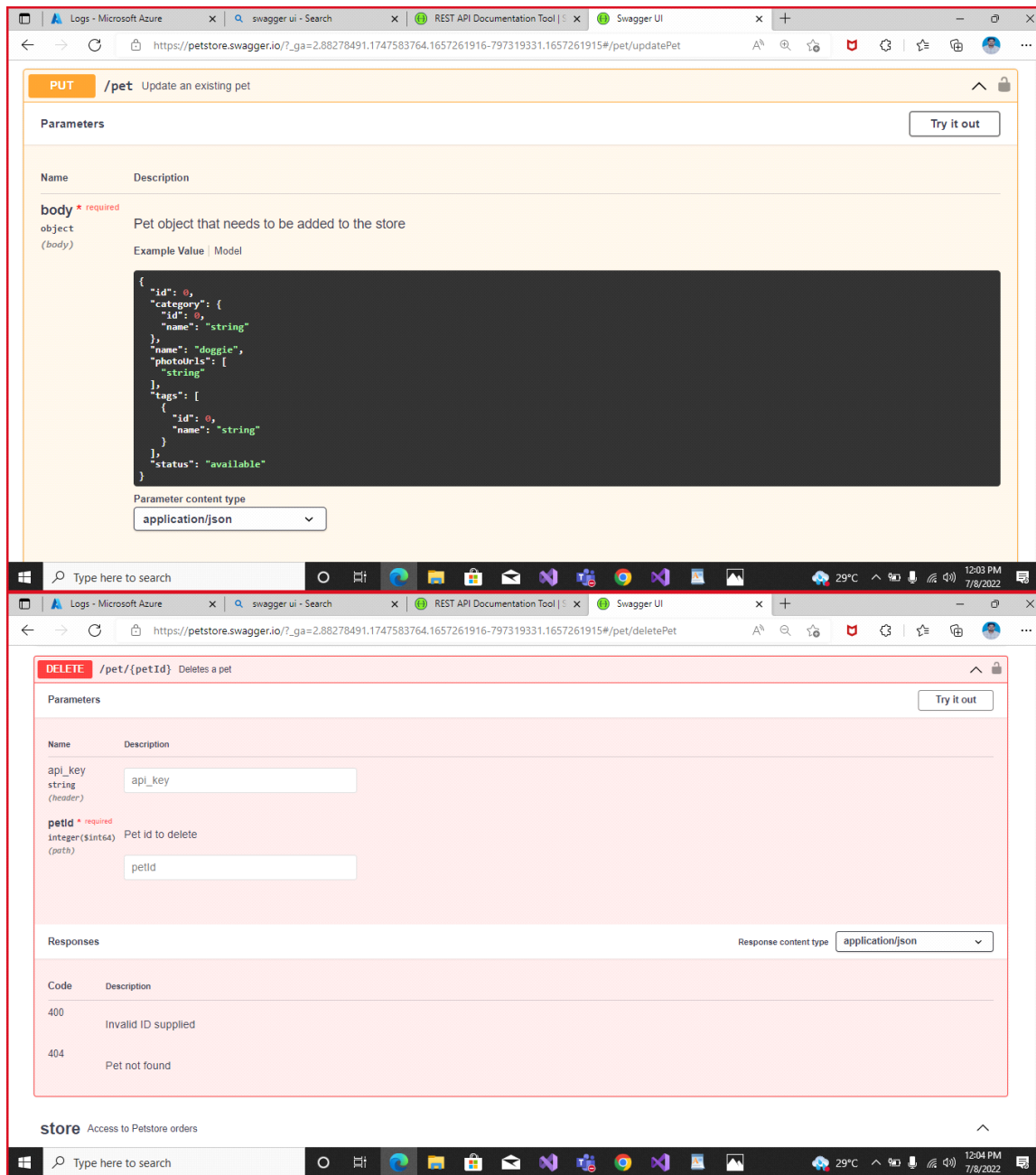
2.POST



The image shows the Swagger UI for the POST endpoint `/pet/{petId}/uploadImage`. The description states: "uploads an image". The parameters section shows a required path parameter `petId` of type `integer($int64)` and two optional form parameters: `additionalMetadata` (string) and `file` (file). The responses section shows a 200 status code for a "successful operation" with an example JSON response:

```
{
  "code": 0,
  "type": "string",
  "message": "string"
}
```

3.PUT

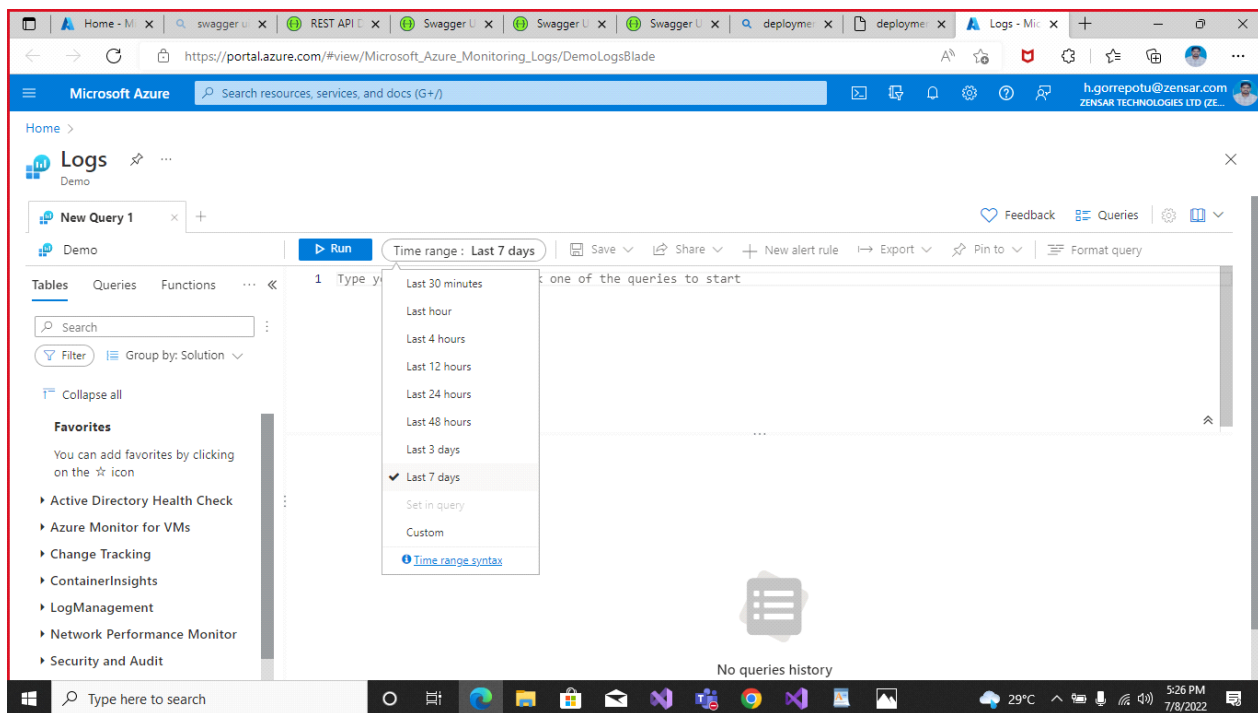


4.DELETE

6.work with log analytics with the sample logs available.

- health state current monitoring state(string).
- active directory health.
- language(kql-kusto query language).

- we can do
 1. query logs.
 2. narrow down details.
 3. look into logs.
 4. query about data.
- 5. like sql.



Microsoft Azure portal interface showing the Logs section. The query editor displays a query for ADAssessmentRecommendation logs where _ResourceId contains "ab". The time range is set to Last 7 days. The interface includes a sidebar with navigation options like Active Directory Health Check, Azure Monitor for VMs, Change Tracking, ContainerInsights, LogManagement, Network Performance Monitor, and Security and Audit. The main area shows "No queries history".

Microsoft Azure portal interface showing the Logs section. The query editor displays a query for ADAssessmentRecommendation logs where _ResourceId contains "ab". The time range is set to Last 7 days. The interface includes a sidebar with navigation options like Active Directory Health Check, Azure Monitor for VMs, Change Tracking, ContainerInsights, LogManagement, Network Performance Monitor, and Security and Audit. The main area displays a table of results with columns: TimeGenerated [UTC], AssessmentId, AssessmentName, RecommendationId, and Recommendation.

TimeGenerated [UTC]	AssessmentId	AssessmentName	RecommendationId	Recommendation
> 7/5/2022, 8:52:01.972 PM	acb0e527-3e41-4997-90a8-7f71a9c07cce	AD	e1fc9908-1810-455a-97de-5f35738141eb	Resolve Directory System
> 7/5/2022, 8:52:02.012 PM	acb0e527-3e41-4997-90a8-7f71a9c07cce	AD	c6eb7e0c-b86a-438f-9dce-9f6f50293dc9	Unless specifically require
> 7/5/2022, 8:52:02.012 PM	acb0e527-3e41-4997-90a8-7f71a9c07cce	AD	4eabc96c-682a-4d81-9919-0c32af52aa3f	Amend dynamic port cor
> 7/5/2022, 8:52:02.012 PM	acb0e527-3e41-4997-90a8-7f71a9c07cce	AD	f676b73a-7a9b-4358-962f-60b4c3569536	Dynamic Port Ranges Co
> 7/5/2022, 8:52:02.012 PM	acb0e527-3e41-4997-90a8-7f71a9c07cce	AD	11d49a22-7cad-43b7-81cf-f466cf77189	Amend dynamic port cor
> 7/5/2022, 8:52:02.012 PM	acb0e527-3e41-4997-90a8-7f71a9c07cce	AD	d8640839-78cd-45a1-a942-10b536923f52	Domain Controllers with
> 7/5/2022, 8:52:02.012 PM	acb0e527-3e41-4997-90a8-7f71a9c07cce	AD	4bcc1c2a-4168-49b8-b5bb-1d1c10ec7796	Disable the Allow Replica