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:

- ProductID
- ProductName
- Price
- Brand
- ManufactureDate
- ExpirationDate

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:

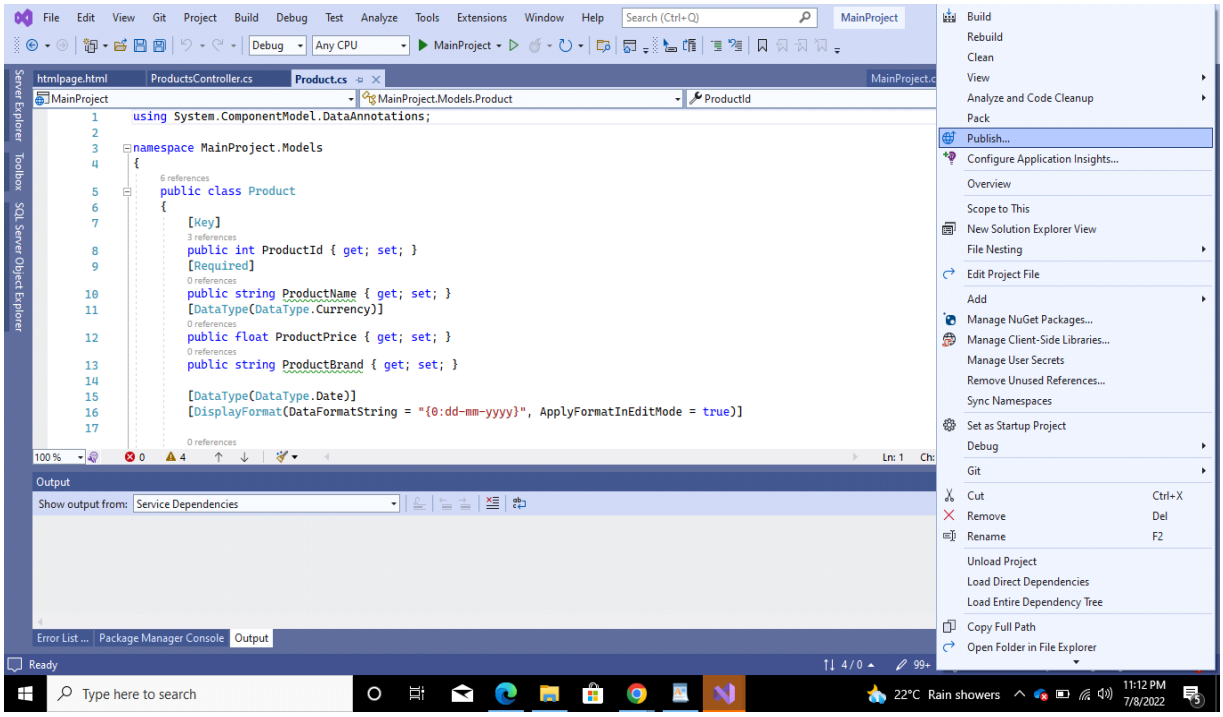
- Host the web api in azure and consume the same using JQuery Client.
- Configure Scale out by adding rules for custom scaling
- Configure Deployment slots for staging and production
- Configure Application Insights for the project
- Configure Swagger for the api
- Work with Log Analytics with the sample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

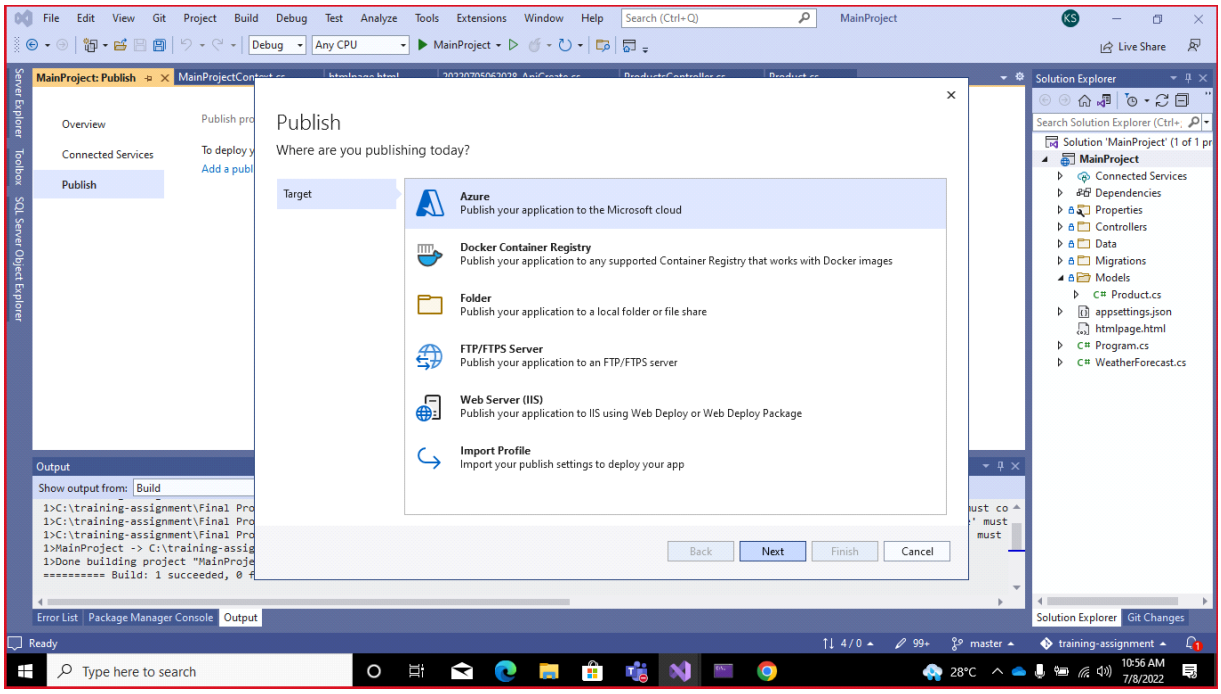
WEB API PROJECT

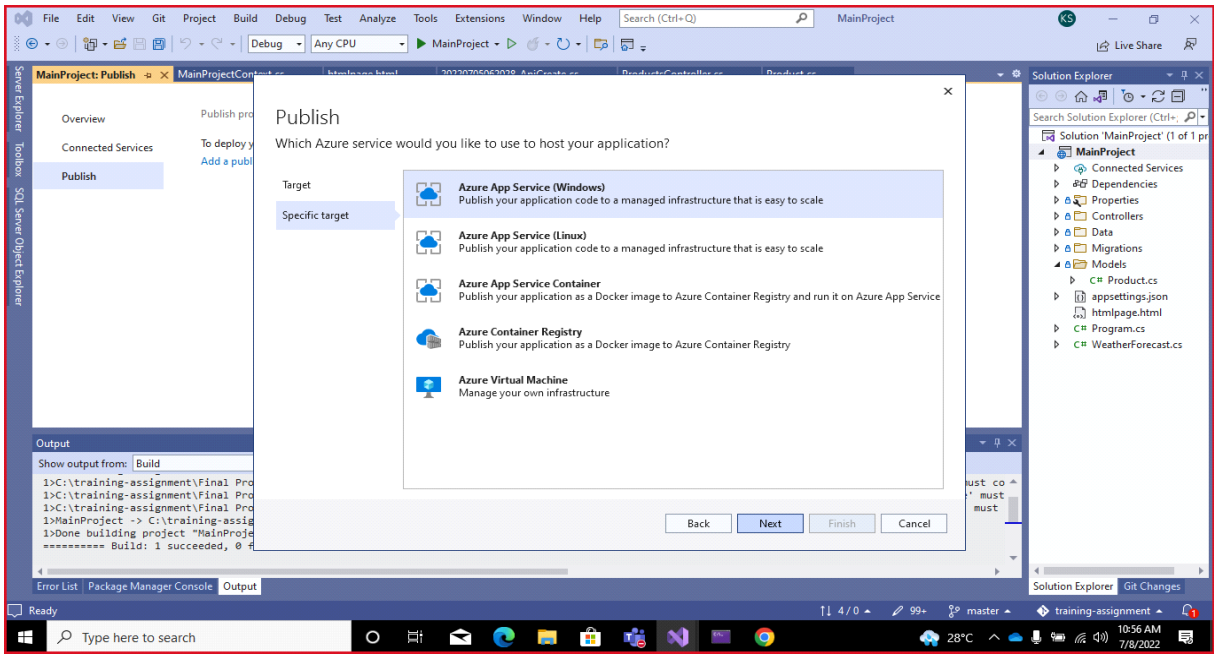
1. Create WEB API Project.
2. Add Models folder and in that folder add Product.cs class.
3. Add Controller for Product class Using Entity Frame work.
4. Open package manager Consoler and follow the below steps.
    4.1. Add-Migration ApiCreate.
    4.2. Update-Database.
5. Add Web Api Client html page in the Project Using Ajax and JQuery.
6. Finally Hosting to the Azure. Follow the below Pics.

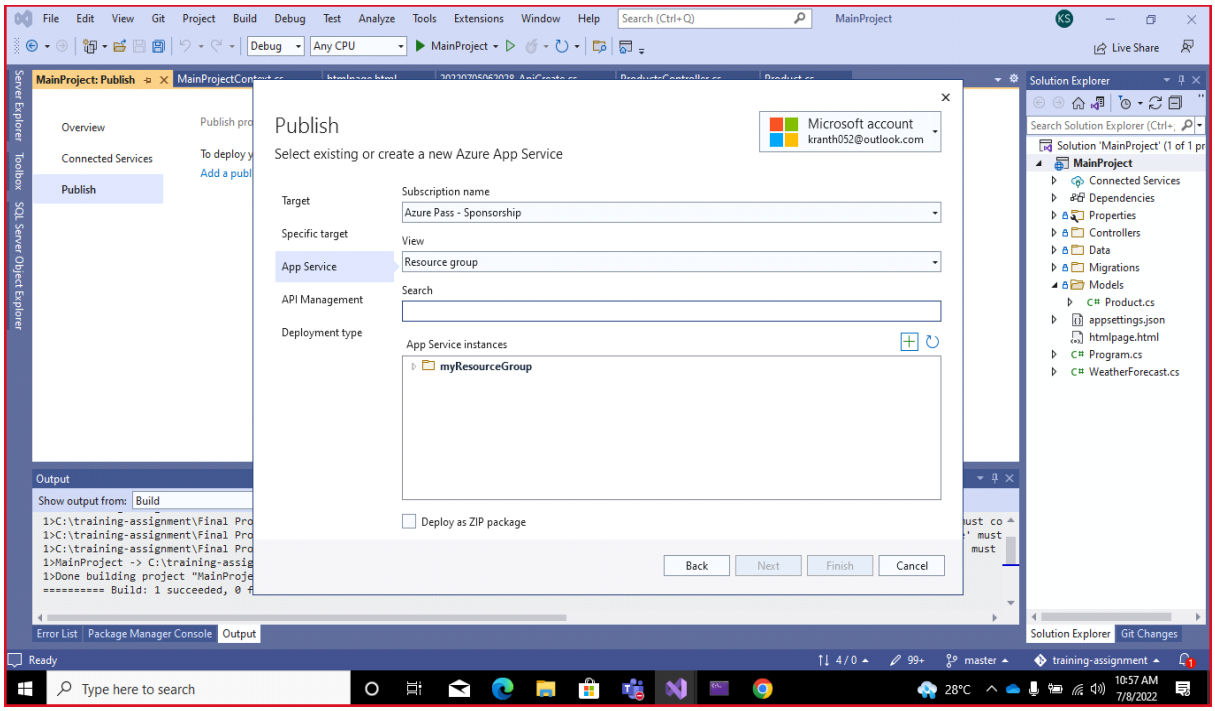
Azure Hosting :-

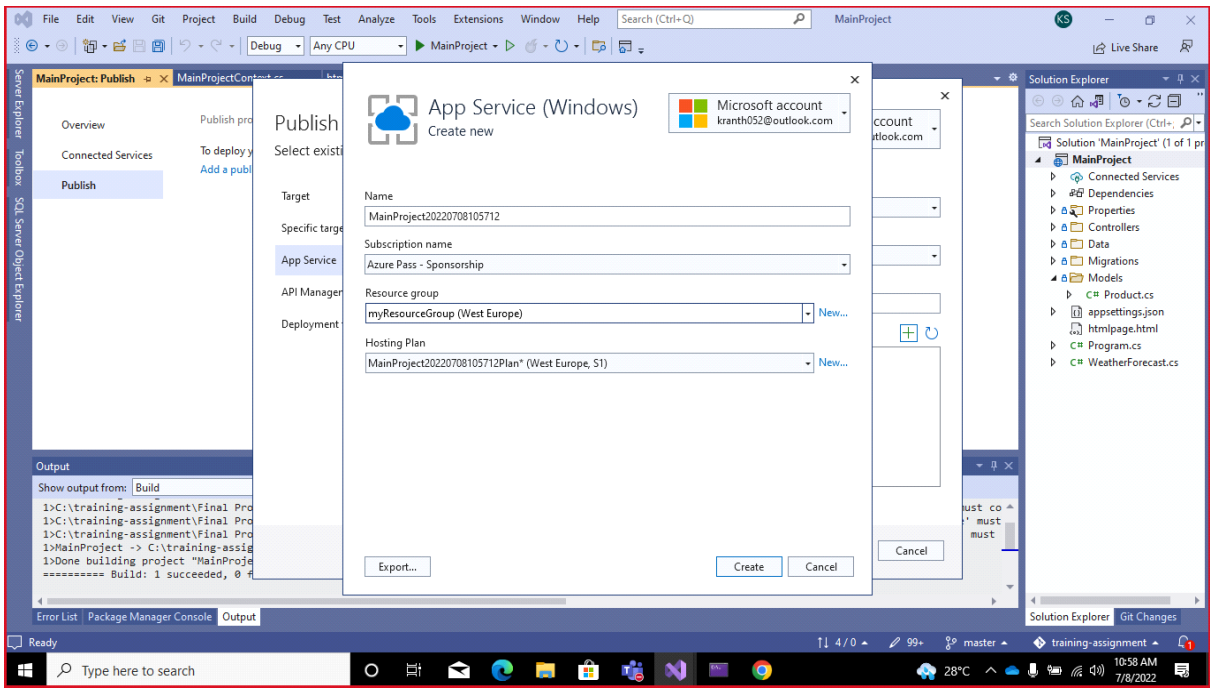
1. Host the web api in azure and consume the same using JQueryClient :-

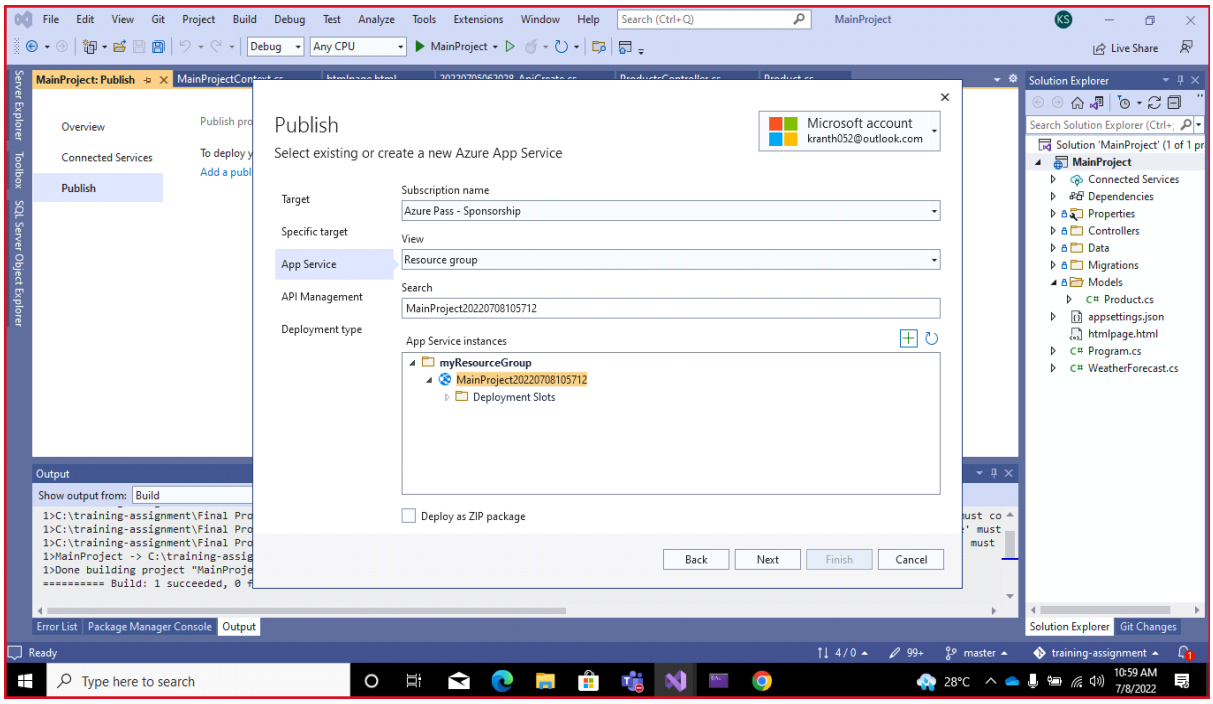


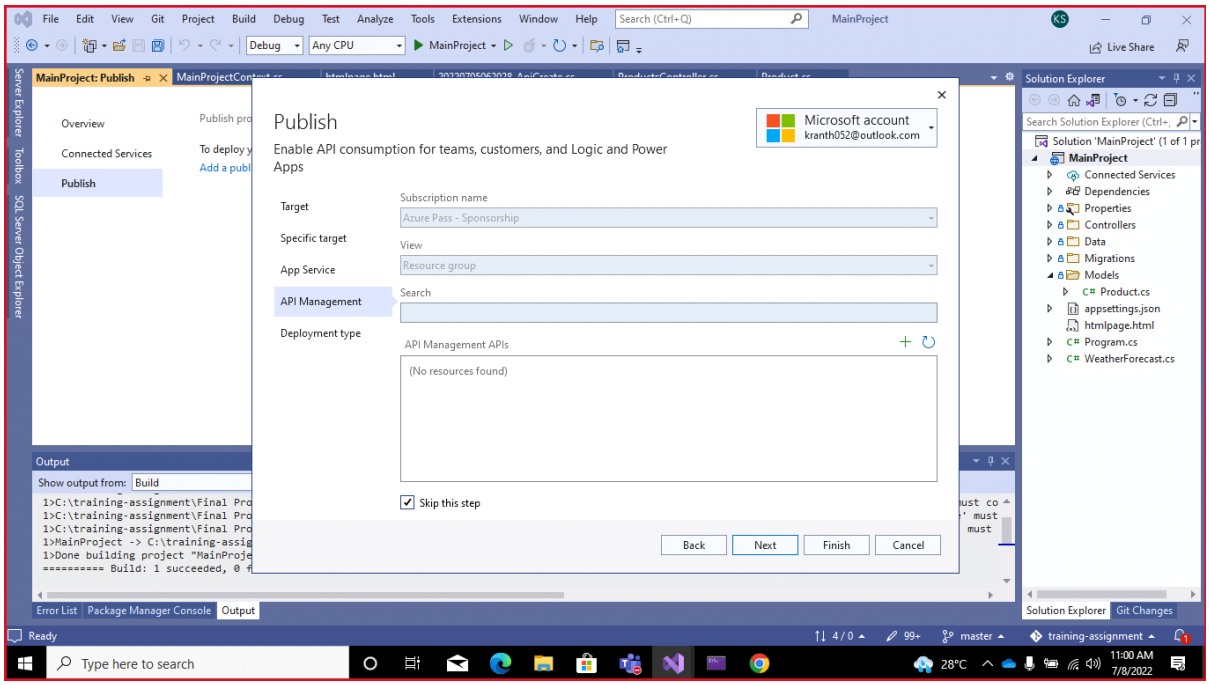

Publish
Where are you publishing today?
Target
Azure
Publish your application to the Microsoft cloud
Docker Container Registry
Publish your application to any supported Container Registry that works with Docker images
Folder
Publish your application to a local folder or file share
FTP/FTPS Server
Publish your application to an FTP/FTPS server
Web Server (IIS)
Publish your application to IIS using Web Deploy or Web Deploy Package
Import Profile
Import your publish settings to deploy your app
Back
Next
Finish
Cancel

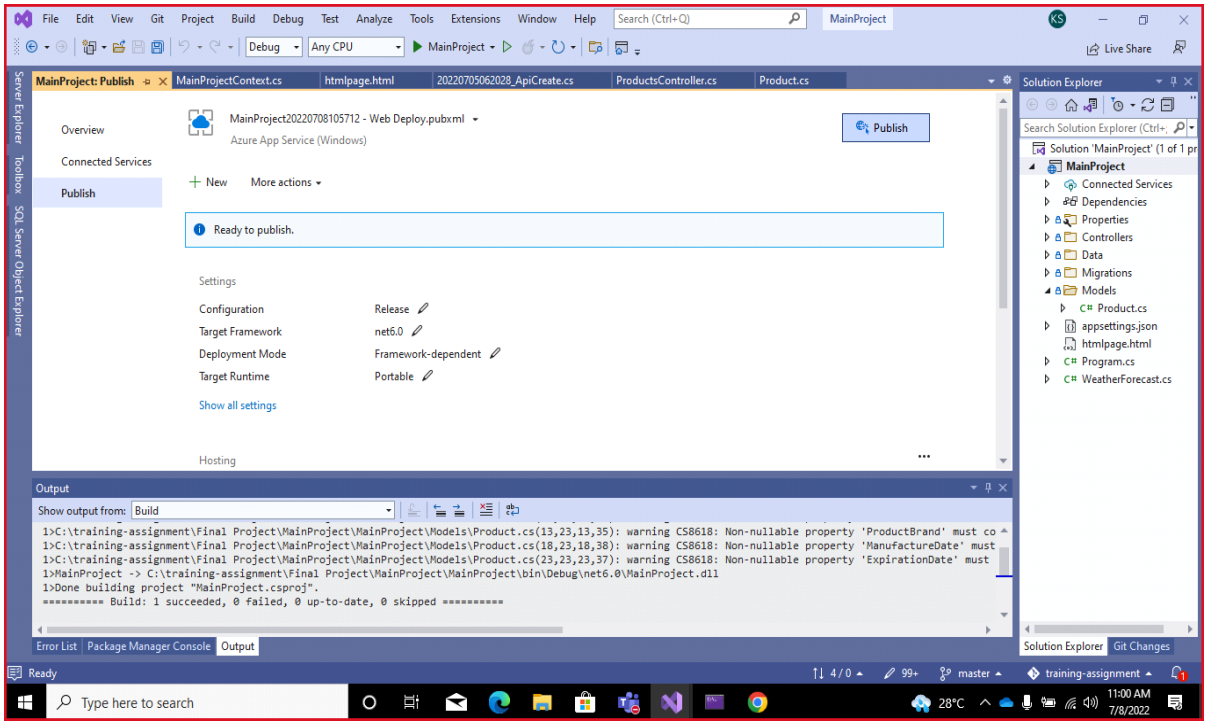

Publish
Which Azure service would you like to use to host your application?
Target
Specific target
Azure App Service (Windows)
Publish your application code to a managed infrastructure that is easy to scale
Azure App Service (Linux)
Publish your application code to a managed infrastructure that is easy to scale
Azure App Service Container
Publish your application as a Docker image to Azure Container Registry and run it on Azure App Service
Azure Container Registry
Publish your application as a Docker image to Azure Container Registry
Azure Virtual Machine
Manage your own infrastructure
Back
Next
Finish
Cancel

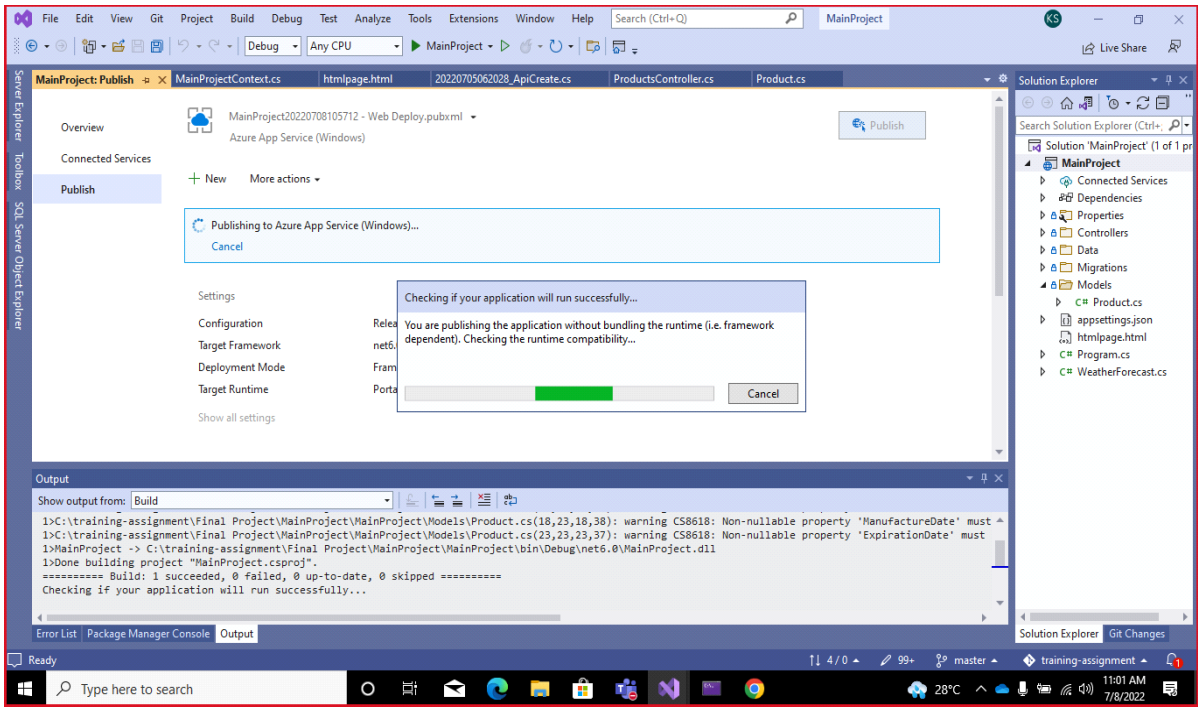

Publish
Select existing or create a new Azure App Service
Microsoft account
kranth052@outlook.com
Target
Specific target
App Service
API Management
Deployment type
Subscription name
Azure Pass - Sponsorship
View
Resource group
Search
App Service instances
myResourceGroup
Deploy as ZIP package
Back
Next
Finish
Cancel
Overview
Connected Services
Publish
Output
Show output from: Build
Solution Explorer
MainProject
Connected Services
Dependencies
Properties
Controllers
Data
Migrations
Models
Product.cs
appsettings.json
htmlpage.html
Program.cs
WeatherForecast.cs
Error List
Package Manager Console
Output
Solution Explorer
Git Changes
Ready
Type here to search
28°C
10:57 AM
7/8/2022

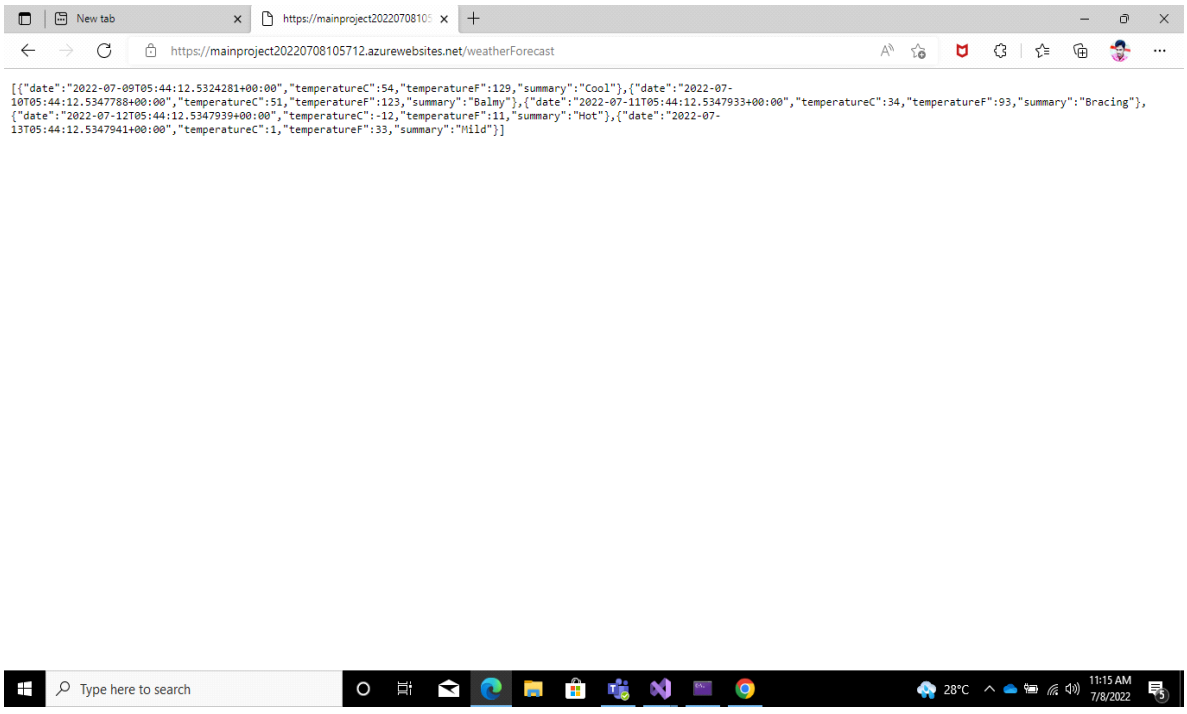

App Service (Windows)
Create new
Microsoft account
kranth052@outlook.com
Name
MainProject20220708105712
Subscription name
Azure Pass - Sponsorship
Resource group
myResourceGroup (West Europe)
New...
Hosting Plan
MainProject20220708105712Plan* (West Europe, S1)
New...
Export...
Create
Cancel
Publish
Overview
Connected Services
Publish
Target
App Service
Output
Show output from: Build
Solution Explorer
MainProject
Connected Services
Dependencies
Properties
Controllers
Data
Migrations
Models
Product.cs
appsettings.json
htmlpage.html
Program.cs
WeatherForecast.cs
Error List
Package Manager Console
Output
Solution Explorer
Git Changes
Ready
Type here to search
28°C
10:58 AM
7/8/2022


Publish
Select existing or create a new Azure App Service
Microsoft account
kranth052@outlook.com
Target
Specific target
App Service
API Management
Deployment type
Subscription name
Azure Pass - Sponsorship
View
Resource group
Search
MainProject20220708105712
App Service instances
myResourceGroup
MainProject20220708105712
Deployment Slots
Deploy as ZIP package
Back
Next
Finish
Cancel


Publish
Enable API consumption for teams, customers, and Logic and Power Apps
Microsoft account
kranth052@outlook.com
Target
Specific target
App Service
API Management
Deployment type
Subscription name
Azure Pass - Sponsorship
View
Resource group
Search
API Management APIs
(No resources found)
Skip this step
Back
Next
Finish
Cancel


File Edit View Git Project Build Debug Test Analyze Tools Extensions Window Help
Search (Ctrl+Q)
MainProject
Debug
Any CPU
MainProject
Live Share
MainProject: Publish
MainProjectContext.cs
htmlpage.html
20220705062028_ApiCreate.cs
ProductsController.cs
Product.cs
Overview
Connected Services
Publish
MainProject20220708105712 - Web Deploy.pubxml
Azure App Service (Windows)
Publish
New
More actions
Ready to publish.
Settings
Configuration Release
Target Framework net6.0
Deployment Mode Framework-dependent
Target Runtime Portable
Show all settings
Hosting
Output
Show output from: Build
1>C:\training-assignment\Final Project\MainProject\MainProject\Models\Product.cs(13,23,13,35): warning CS8618: Non-nullable property 'ProductBrand' must co
1>C:\training-assignment\Final Project\MainProject\MainProject\Models\Product.cs(18,23,18,38): warning CS8618: Non-nullable property 'ManufactureDate' must
1>C:\training-assignment\Final Project\MainProject\MainProject\Models\Product.cs(23,23,23,37): warning CS8618: Non-nullable property 'ExpirationDate' must
1>MainProject -> C:\training-assignment\Final Project\MainProject\MainProject\bin\Debug\net6.0\MainProject.dll
1>Done building project "MainProject.csproj".
========== Build: 1 succeeded, 0 failed, 0 up-to-date, 0 skipped ==========
Error List
Package Manager Console
Output
Solution Explorer
Search Solution Explorer (Ctrl+;
Solution 'MainProject' (1 of 1 pr
MainProject
Connected Services
Dependencies
Properties
Controllers
Data
Migrations
Models
Product.cs
appsettings.json
htmlpage.html
Program.cs
WeatherForecast.cs
Solution Explorer
Git Changes
Ready
4 / 0
99+
master
training-assignment
Type here to search
28°C
11:00 AM
7/8/2022


File Edit View Git Project Build Debug Test Analyze Tools Extensions Window Help
Search (Ctrl+Q)
MainProject
Debug
Any CPU
MainProject
Live Share
MainProject: Publish
MainProjectContext.cs
htmlpage.html
20220705062028_ApiCreate.cs
ProductsController.cs
Product.cs
Overview
Connected Services
Publish
MainProject20220708105712 - Web Deploy.pubxml
Azure App Service (Windows)
Publish
New
More actions
Publishing to Azure App Service (Windows)...
Cancel
Settings
Configuration
Target Framework
Deployment Mode
Target Runtime
Show all settings
Checking if your application will run successfully...
You are publishing the application without bundling the runtime (i.e. framework dependent). Checking the runtime compatibility...
Cancel
Solution Explorer
Solution 'MainProject' (1 of 1 pr
MainProject
Connected Services
Dependencies
Properties
Controllers
Data
Migrations
Models
Product.cs
appsettings.json
htmlpage.html
Program.cs
WeatherForecast.cs
Output
Show output from: Build
1>C:\training-assignment\Final Project\MainProject\MainProject\Models\Product.cs(18,23,18,38): warning CS8618: Non-nullable property 'ManufactureDate' must
1>C:\training-assignment\Final Project\MainProject\MainProject\Models\Product.cs(23,23,23,37): warning CS8618: Non-nullable property 'ExpirationDate' must
1>MainProject -> C:\training-assignment\Final Project\MainProject\MainProject\bin\Debug\net6.0\MainProject.dll
1>Done building project "MainProject.csproj".
========== Build: 1 succeeded, 0 failed, 0 up-to-date, 0 skipped ==========
Checking if your application will run successfully...
Error List
Package Manager Console
Output
Solution Explorer
Git Changes
Ready
master
training-assignment
Type here to search
28°C
11:01 AM
7/8/2022


New tab
https://mainproject20220708105712.azurewebsites.net/weatherForecast
[{"date":"2022-07-09T05:44:12.5324281+00:00","temperatureC":54,"temperatureF":129,"summary":"Cool"},{"date":"2022-07-10T05:44:12.5347788+00:00","temperatureC":51,"temperatureF":123,"summary":"Balmy"},{"date":"2022-07-11T05:44:12.5347933+00:00","temperatureC":34,"temperatureF":93,"summary":"Bracing"},{"date":"2022-07-12T05:44:12.5347939+00:00","temperatureC":-12,"temperatureF":11,"summary":"Hot"},{"date":"2022-07-13T05:44:12.5347941+00:00","temperatureC":1,"temperatureF":33,"summary":"Mild"}]
Type here to search
28°C
11:15 AM
7/8/2022

2.Configure Scale out by adding rules for custom scaling :-

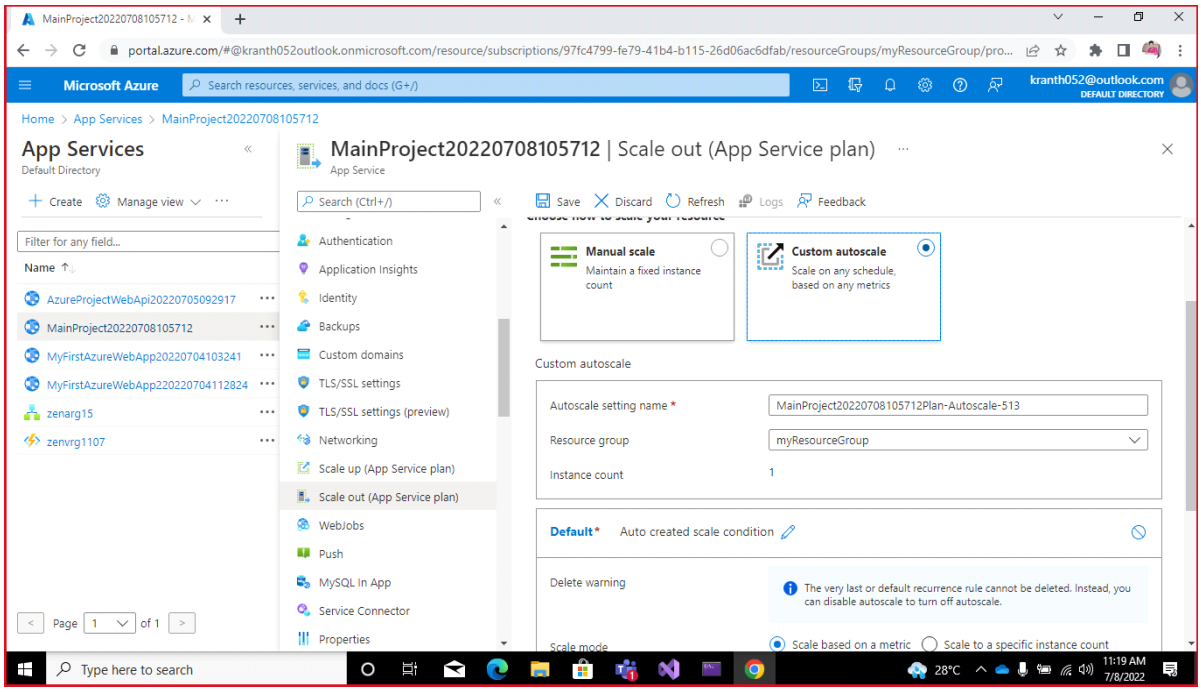
A scale out operation is the equivalent of creating multiple copies of your web site and adding a load balancer to distribute the demand between them. When you scale out a web site in Windows Azure Web Sites there is no need to configure load balancing separately since this is already provided by the platform.

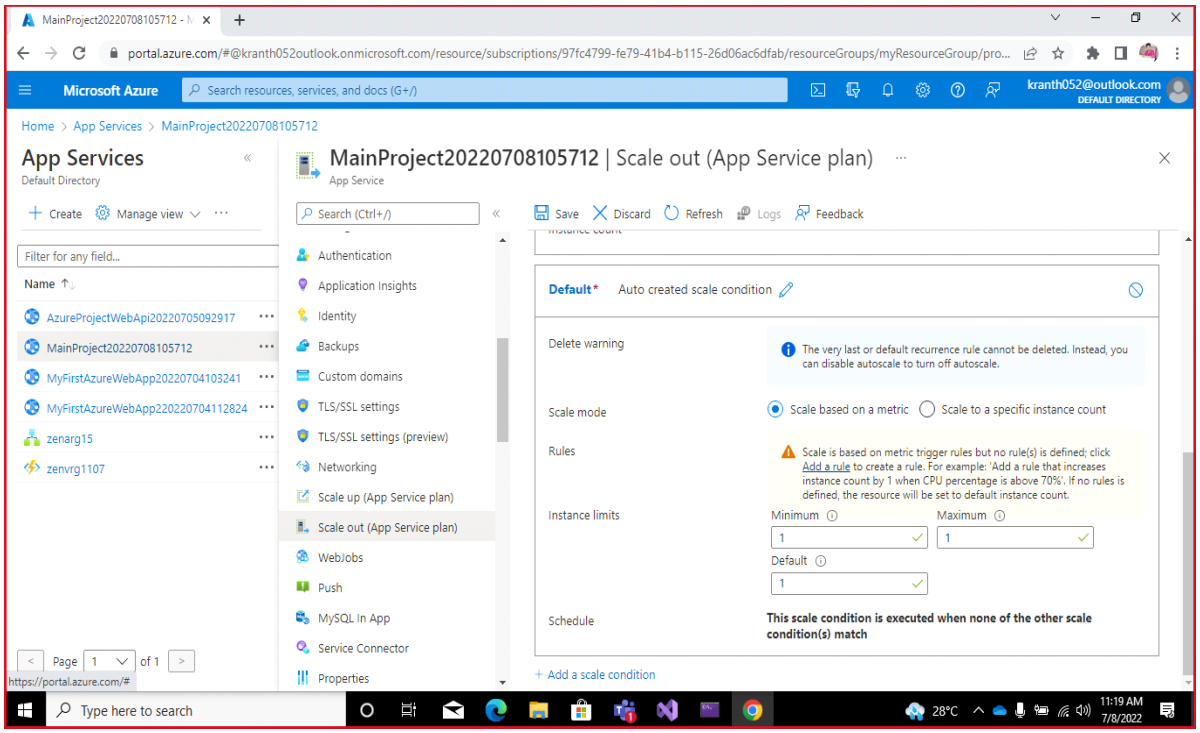
-> Follow the below images to add the scale out to our web site.

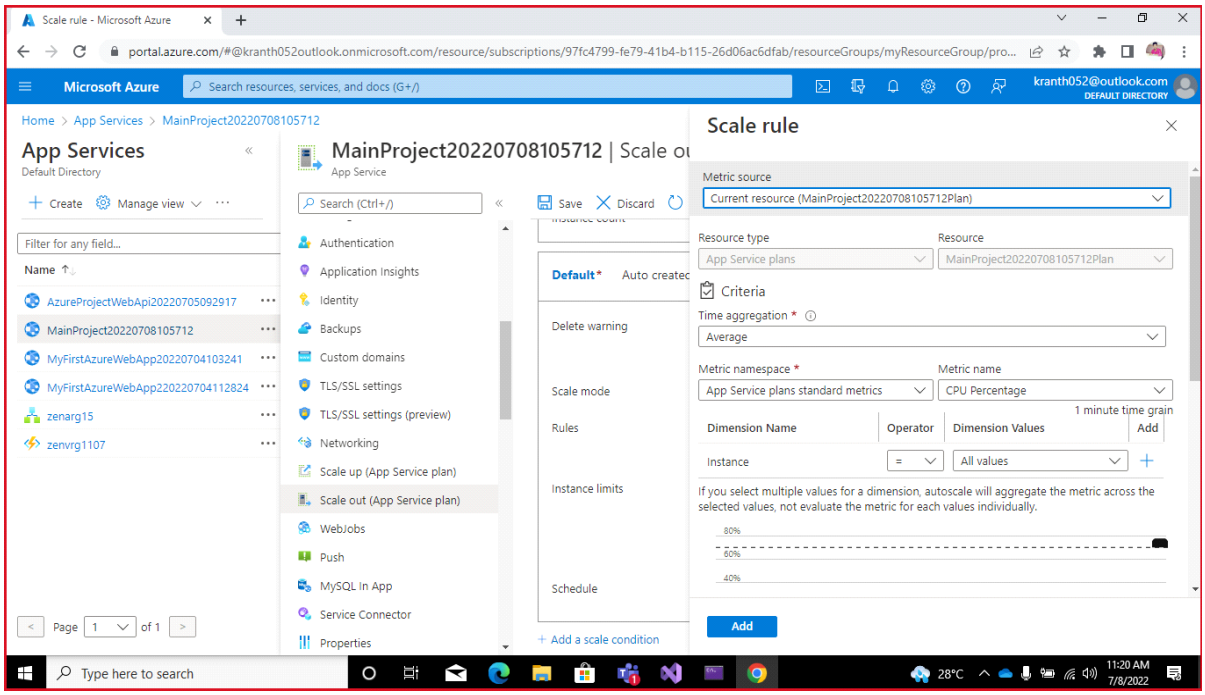
1. select Custom Auto Scale.

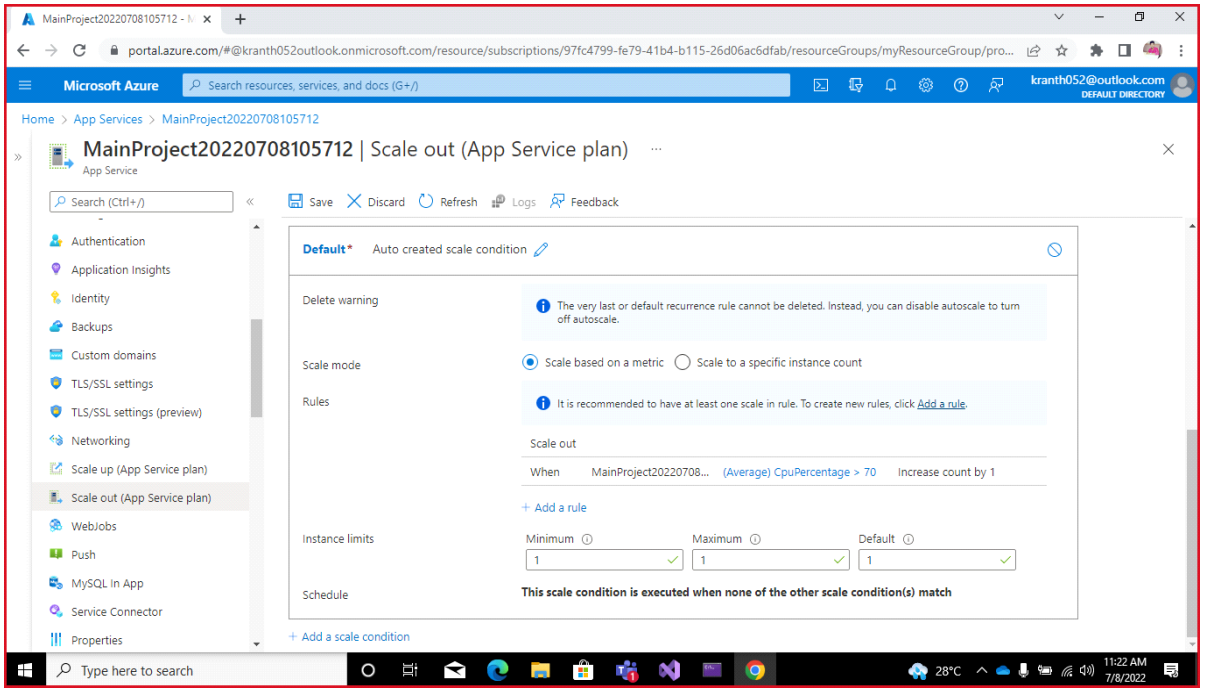
2. Click on Add a rule.

3. Add your rules and click on Add button and Save changes.


MainProject20220708105712 - N
portal.azure.com/#@kranth052outlook.onmicrosoft.com/resource/subscriptions/97fc4799-fe79-41b4-b115-26d06ac6dfab/resourceGroups/myResourceGroup/pro...
Microsoft Azure
Search resources, services, and docs (G+/)
kranth052@outlook.com
DEFAULT DIRECTORY
Home > App Services > MainProject20220708105712
App Services
Default Directory
Create
Manage view
Filter for any field...
Name
AzureProjectWebApi20220705092917
MainProject20220708105712
MyFirstAzureWebApp20220704103241
MyFirstAzureWebApp220220704112824
zenarg15
zenvrg1107
Page 1 of 1
MainProject20220708105712 | Scale out (App Service plan)
App Service
Search (Ctrl+/)
Save
Discard
Refresh
Logs
Feedback
Authentication
Application Insights
Identity
Backups
Custom domains
TLS/SSL settings
TLS/SSL settings (preview)
Networking
Scale up (App Service plan)
Scale out (App Service plan)
WebJobs
Push
MySQL In App
Service Connector
Properties
Manual scale
Maintain a fixed instance count
Custom autoscale
Scale on any schedule, based on any metrics
Custom autoscale
Autoscale setting name *
MainProject20220708105712Plan-Autoscale-513
Resource group
myResourceGroup
Instance count
1
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
Type here to search
28°C
11:19 AM
7/8/2022


MainProject20220708105712 - N
portal.azure.com/#@kranth052outlook.onmicrosoft.com/resource/subscriptions/97fc4799-fe79-41b4-b115-26d06ac6dfab/resourceGroups/myResourceGroup/pro...
Microsoft Azure
Search resources, services, and docs (G+/)
kranth052@outlook.com
DEFAULT DIRECTORY
Home > App Services > MainProject20220708105712
App Services
Default Directory
Create
Manage view
Filter for any field...
Name
AzureProjectWebApi20220705092917
MainProject20220708105712
MyFirstAzureWebApp20220704103241
MyFirstAzureWebApp220220704112824
zenarg15
zenvrg1107
Page 1 of 1
https://portal.azure.com/#
MainProject20220708105712 | Scale out (App Service plan)
App Service
Search (Ctrl+/)
Save
Discard
Refresh
Logs
Feedback
Authentication
Application Insights
Identity
Backups
Custom domains
TLS/SSL settings
TLS/SSL settings (preview)
Networking
Scale up (App Service plan)
Scale out (App Service plan)
WebJobs
Push
MySQL In App
Service Connector
Properties
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
Rules
Scale is based on metric trigger rules but no rule(s) is defined; click Add a rule to create a rule. For example: 'Add a rule that increases instance count by 1 when CPU percentage is above 70%'. If no rules is defined, the resource will be set to default instance count.
Instance limits
Minimum
Maximum
1
1
Default
1
Schedule
This scale condition is executed when none of the other scale condition(s) match
Add a scale condition
Type here to search
28°C
11:19 AM
7/8/2022


Scale rule - Microsoft Azure
portal.azure.com/#@kranth052outlook.onmicrosoft.com/resource/subscriptions/97fc4799-fe79-41b4-b115-26d06ac6dfab/resourceGroups/myResourceGroup/pro...
Microsoft Azure
Search resources, services, and docs (G+/)
kranth052@outlook.com
DEFAULT DIRECTORY
Home > App Services > MainProject20220708105712
App Services
Default Directory
Create
Manage view
Filter for any field...
Name
AzureProjectWebApi20220705092917
MainProject20220708105712
MyFirstAzureWebApp20220704103241
MyFirstAzureWebApp220220704112824
zenarg15
zenvrg1107
Page 1 of 1
MainProject20220708105712 | Scale ou
App Service
Search (Ctrl+/)
Save
Discard
Authentication
Application Insights
Identity
Backups
Custom domains
TLS/SSL settings
TLS/SSL settings (preview)
Networking
Scale up (App Service plan)
Scale out (App Service plan)
WebJobs
Push
MySQL In App
Service Connector
Properties
Default*
Auto created
Delete warning
Scale mode
Rules
Instance limits
Schedule
Add a scale condition
Scale rule
Metric source
Current resource (MainProject20220708105712Plan)
Resource type
App Service plans
Resource
MainProject20220708105712Plan
Criteria
Time aggregation *
Average
Metric namespace *
App Service plans standard metrics
Metric name
CPU Percentage
1 minute time grain
Dimension Name
Operator
Dimension Values
Add
Instance
=
All values
If you select multiple values for a dimension, autoscale will aggregate the metric across the selected values, not evaluate the metric for each values individually.
80%
60%
40%
Add
Type here to search
28°C
11:20 AM
7/8/2022


MainProject20220708105712 -
portal.azure.com/#@kranth052outlook.onmicrosoft.com/resource/subscriptions/97fc4799-fe79-41b4-b115-26d06ac6dfab/resourceGroups/myResourceGroup/pro...
Microsoft Azure
Search resources, services, and docs (G+/)
kranth052@outlook.com
DEFAULT DIRECTORY
Home > App Services > MainProject20220708105712
MainProject20220708105712 | Scale out (App Service plan)
App Service
Search (Ctrl+/)
Save
Discard
Refresh
Logs
Feedback
Authentication
Application Insights
Identity
Backups
Custom domains
TLS/SSL settings
TLS/SSL settings (preview)
Networking
Scale up (App Service plan)
Scale out (App Service plan)
WebJobs
Push
MySQL In App
Service Connector
Properties
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
Rules
It is recommended to have at least one scale in rule. To create new rules, click Add a rule.
Scale out
When
MainProject20220708...
(Average) CpuPercentage > 70
Increase count by 1
Add a rule
Instance limits
Minimum
Maximum
Default
1
1
1
Schedule
This scale condition is executed when none of the other scale condition(s) match
Add a scale condition
Type here to search
28°C
11:22 AM
7/8/2022

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.

-> The following reflect how functions are affected by swapping slots:

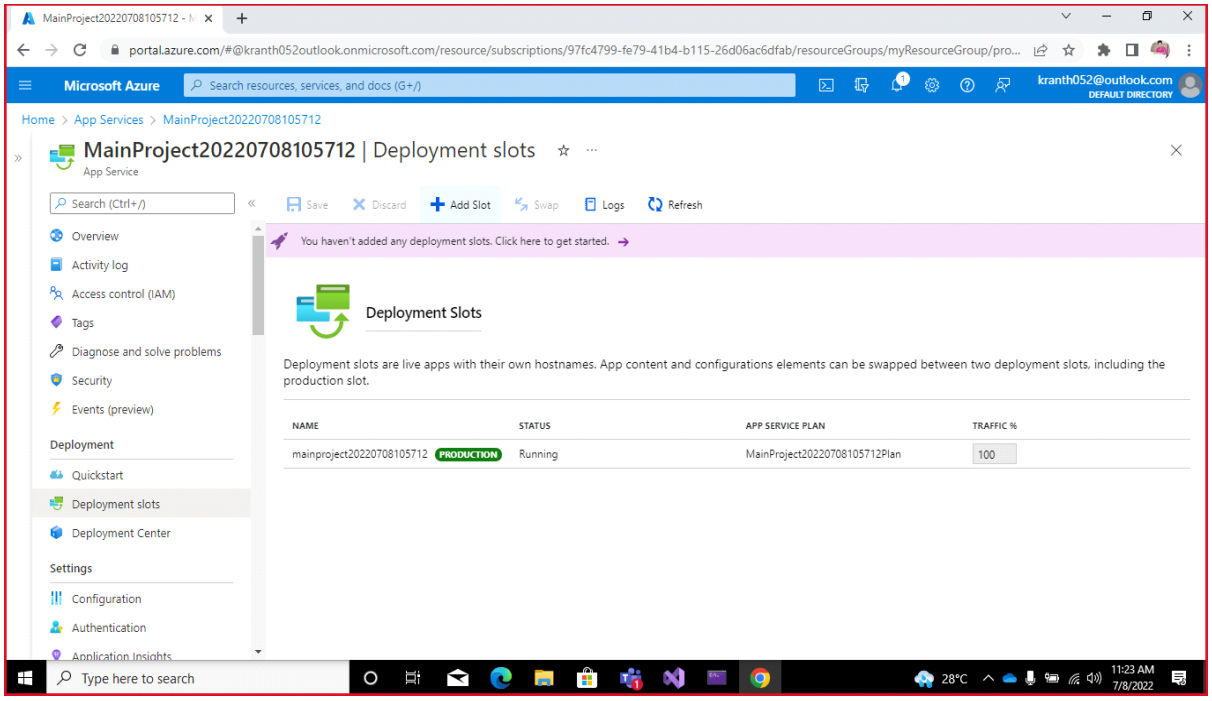
- Traffic redirection is seamless; no requests are dropped because of a swap. This seamless behavior is a result of the next function triggers being routed to the swapped slot.
- Currently executing function are terminated during the swap. Please review Improve the performance and reliability of Azure Functions to learn how to write stateless and defensive functions.

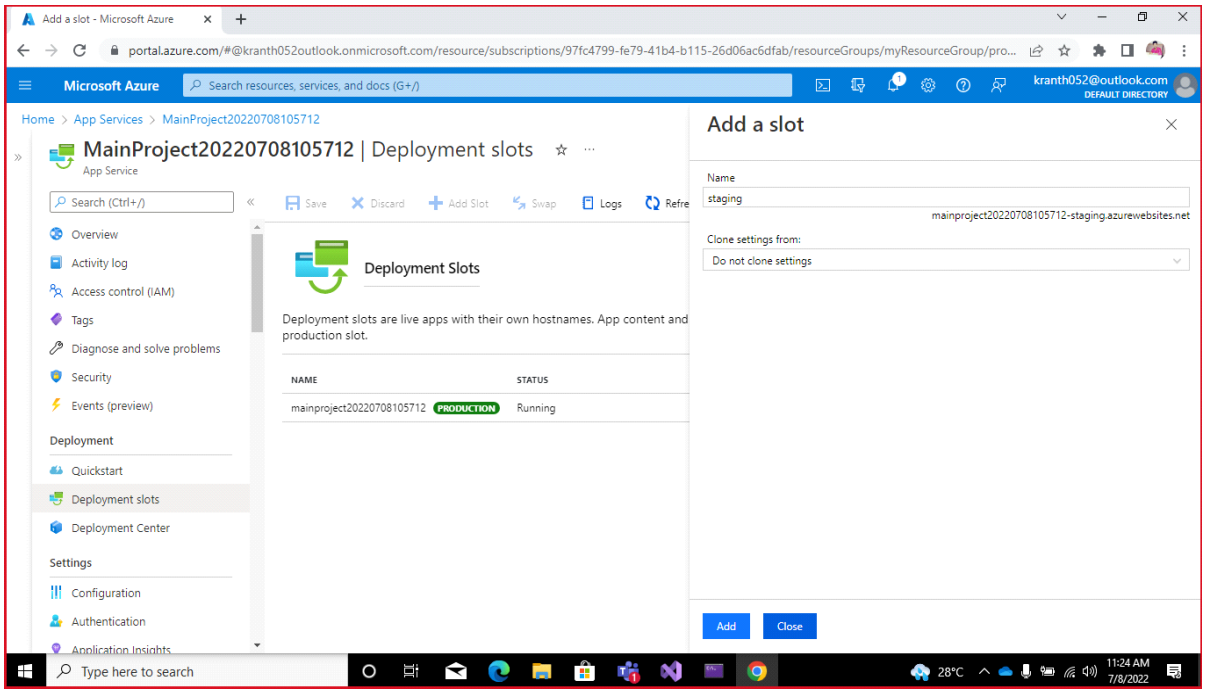
-> Follow the below images to add deployment slots.

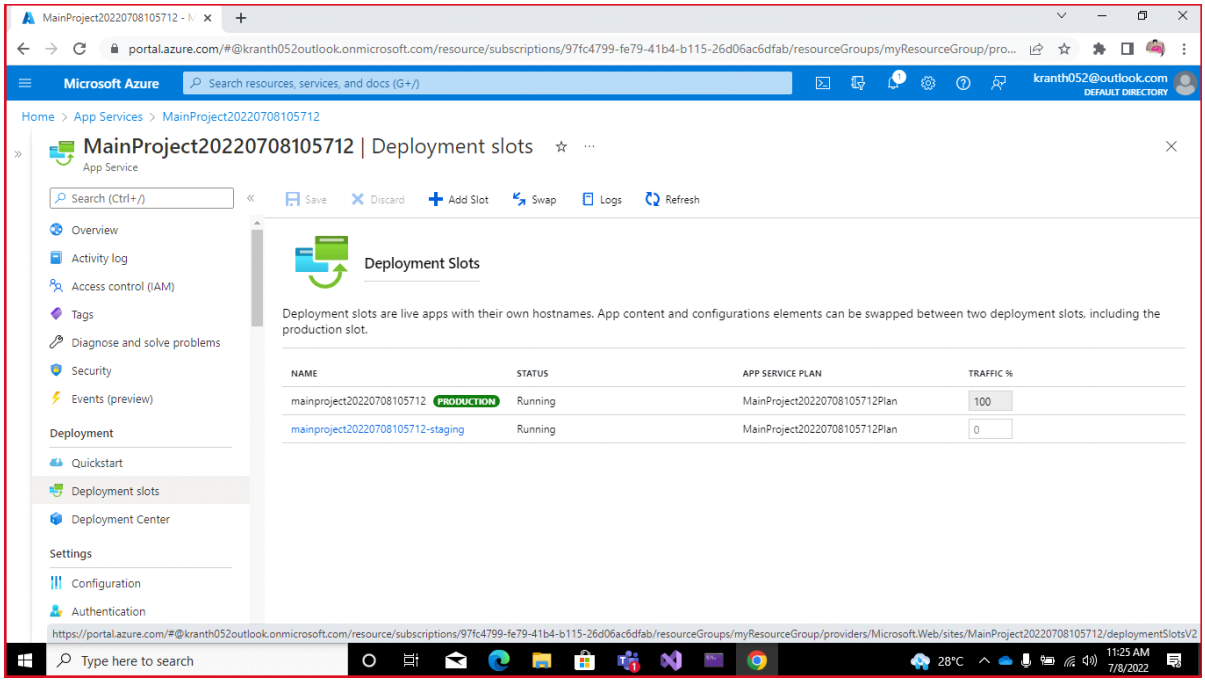
1. Click on Add Slot.

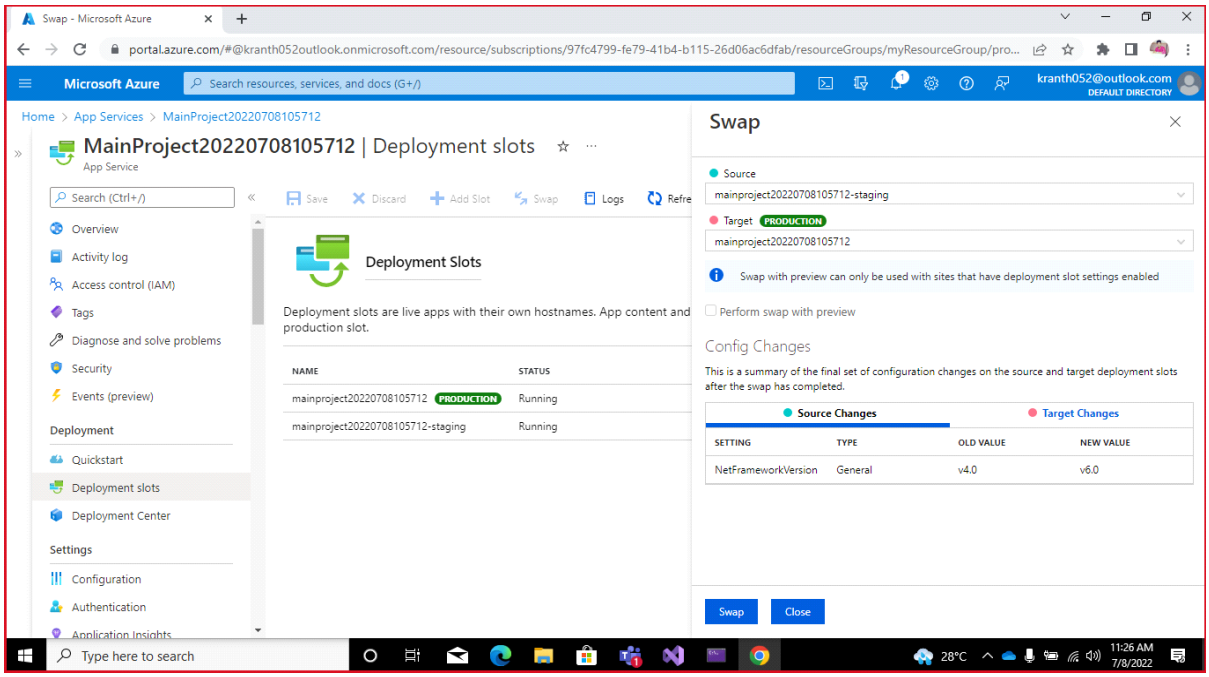
2. Enter The slot name and click on add button.

3. Finally swapping the slots.




Add a slot - Microsoft Azure
portal.azure.com/#@kranth052outlook.onmicrosoft.com/resource/subscriptions/97fc4799-fe79-41b4-b115-26d06ac6dfab/resourceGroups/myResourceGroup/pro...
Microsoft Azure
Search resources, services, and docs (G+/)
kranth052@outlook.com
DEFAULT DIRECTORY
Home > App Services > MainProject20220708105712
MainProject20220708105712 | Deployment slots
App Service
Search (Ctrl+/)
Save
Discard
Add Slot
Swap
Logs
Overview
Activity log
Access control (IAM)
Tags
Diagnose and solve problems
Security
Events (preview)
Deployment
Quickstart
Deployment slots
Deployment Center
Settings
Configuration
Authentication
Application Insights
Deployment Slots
Deployment slots are live apps with their own hostnames. App content and
production slot.
NAME
STATUS
mainproject20220708105712 PRODUCTION
Running
Add a slot
Name
staging
mainproject20220708105712-staging.azurewebsites.net
Clone settings from:
Do not clone settings
Add
Close
Type here to search
28°C
11:24 AM
7/8/2022


MainProject20220708105712 -
portal.azure.com/#@kranth052outlook.onmicrosoft.com/resource/subscriptions/97fc4799-fe79-41b4-b115-26d06ac6dfab/resourceGroups/myResourceGroup/pro...
Microsoft Azure
Search resources, services, and docs (G+/)
kranth052@outlook.com
DEFAULT DIRECTORY
Home > App Services > MainProject20220708105712
MainProject20220708105712 | 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
Configuration
Authentication
Deployment 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.
NAME
STATUS
APP SERVICE PLAN
TRAFFIC %
mainproject20220708105712 PRODUCTION
Running
MainProject20220708105712Plan
100
mainproject20220708105712-staging
Running
MainProject20220708105712Plan
0
https://portal.azure.com/#@kranth052outlook.onmicrosoft.com/resource/subscriptions/97fc4799-fe79-41b4-b115-26d06ac6dfab/resourceGroups/myResourceGroup/providers/Microsoft.Web/sites/MainProject20220708105712/deploymentSlotsV2
Type here to search
28°C
11:25 AM
7/8/2022



4.Configure Application Insights for the project :-

provides extensible application performance management (APM) and monitoring for live web apps. Developers and DevOps professionals can use Application Insights to:

- Application Insights is a feature of Azure Monitor that Automatically detect performance anomalies.
- Help diagnose issues by using powerful analytics tools.
- See what users actually do with apps.

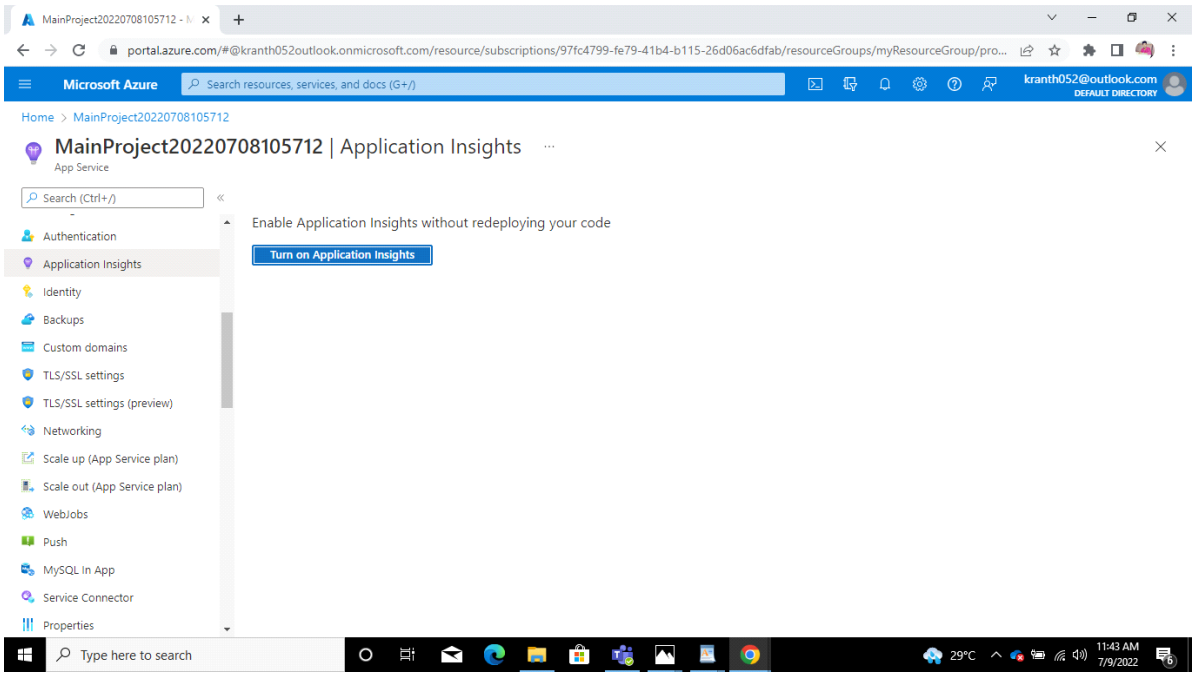
Help continuously improve app performance and usability.

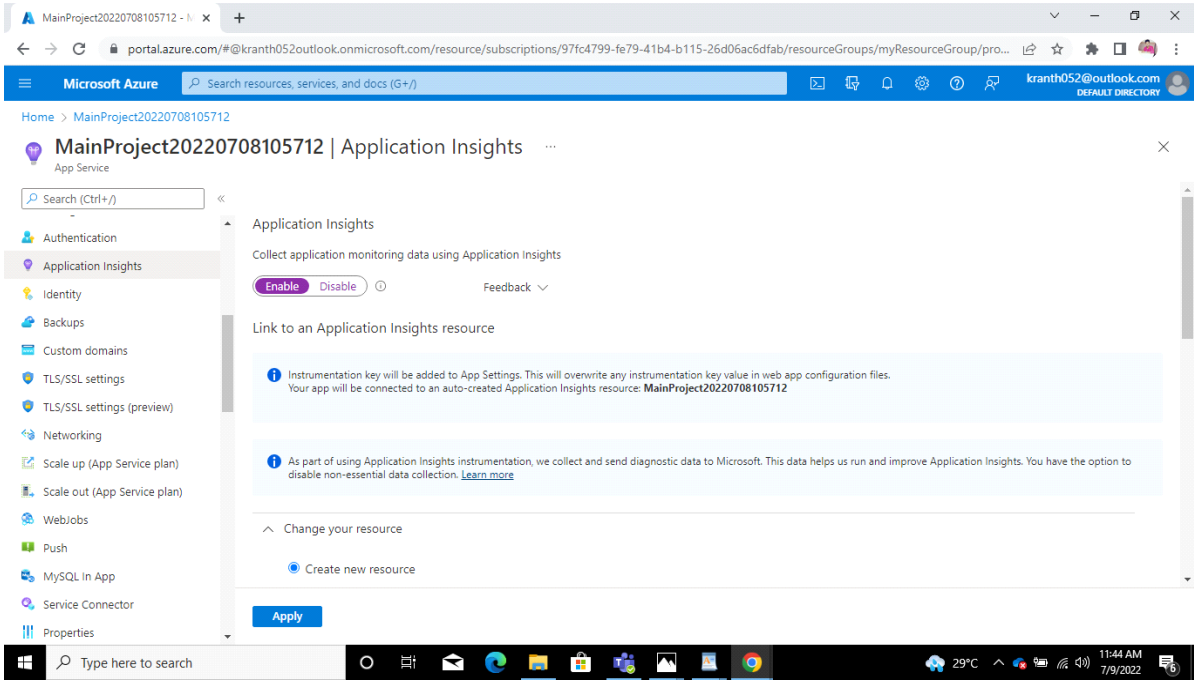
Application Insights :-

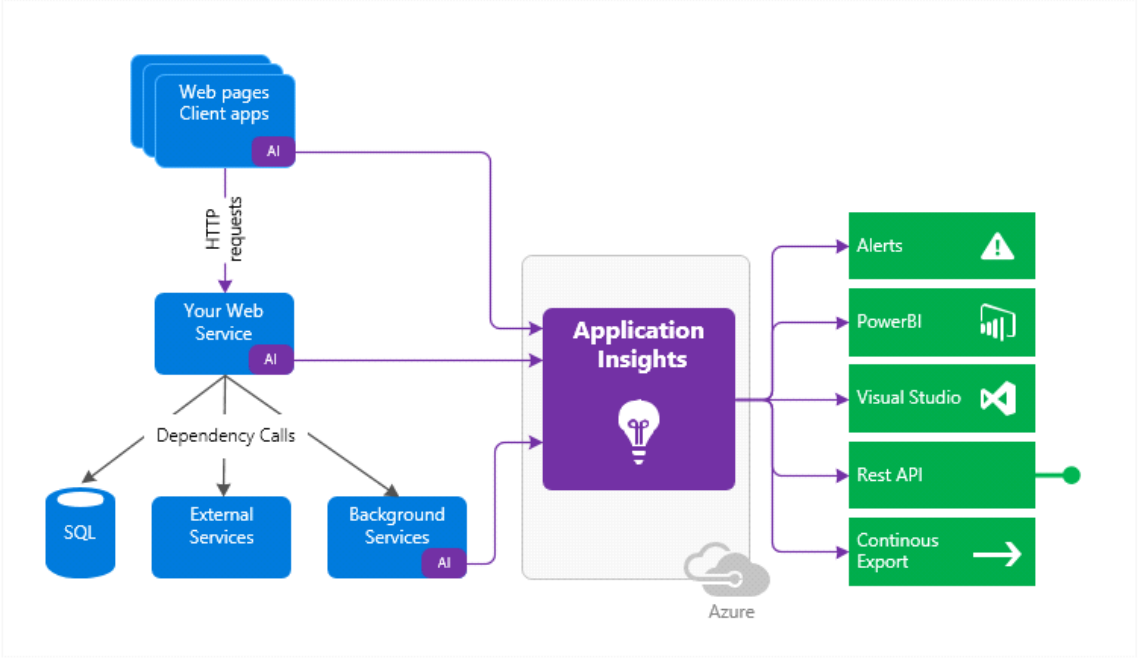
- Supports a wide variety of platforms, including .NET, Node.js, Java, and Python.
- Works for apps hosted on-premises, hybrid, or on any public cloud.
- Integrates with DevOps processes.
- Has connection points to many development tools.
- Can monitor and analyze telemetry from mobile apps by integrating with Visual Studio App Center.

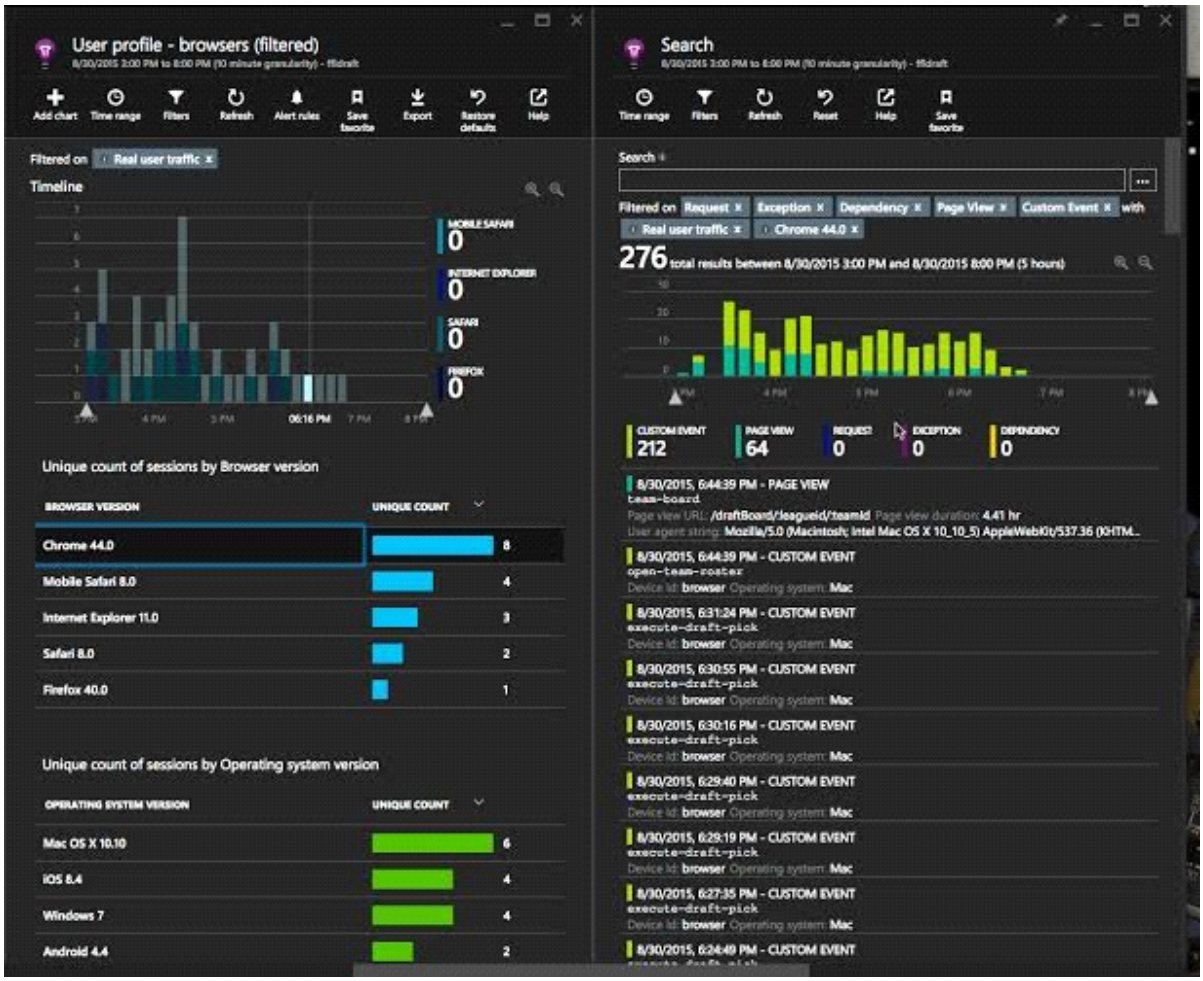
-> Follow the bellow images to add Application insights

1. Trun on Application Insights.
2. Select Existing Resource.
3. Click on the Apply button.




MainProject20220708105712 - N
portal.azure.com/#@kranth052outlook.onmicrosoft.com/resource/subscriptions/97fc4799-fe79-41b4-b115-26d06ac6dfab/resourceGroups/myResourceGroup/pro...
Microsoft Azure
Search resources, services, and docs (G+/)
kranth052@outlook.com
DEFAULT DIRECTORY
Home > MainProject20220708105712
MainProject20220708105712 | Application Insights
App Service
Search (Ctrl+/)
Authentication
Application Insights
Identity
Backups
Custom domains
TLS/SSL settings
TLS/SSL settings (preview)
Networking
Scale up (App Service plan)
Scale out (App Service plan)
WebJobs
Push
MySQL In App
Service Connector
Properties
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: MainProject20220708105712
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
Create new resource
Apply
Type here to search
29°C
11:44 AM
7/9/2022


Web pages
Client apps
AI
HTTP requests
Your Web Service
AI
Dependency Calls
SQL
External Services
Background Services
AI
Application Insights
Azure
Alerts
PowerBI
Visual Studio
Rest API
Continous Export


User profile - browsers (filtered)
Add chart
Time range
Filters
Refresh
Alert rules
Save favorite
Export
Restore defaults
Help
Filtered on
Real user traffic
Timeline
MOBILE SAFARI
0
INTERNET EXPLORER
0
SAFARI
0
FIREFOX
0
06:16 PM
Unique count of sessions by Browser version
BROWSER VERSION
UNIQUE COUNT
Chrome 44.0
8
Mobile Safari 8.0
4
Internet Explorer 11.0
3
Safari 8.0
2
Firefox 40.0
1
Unique count of sessions by Operating system version
OPERATING SYSTEM VERSION
UNIQUE COUNT
Mac OS X 10.10
6
iOS 8.4
4
Windows 7
4
Android 4.4
2
Search
Time range
Filters
Refresh
Reset
Help
Save favorite
Search
Filtered on
Request
Exception
Dependency
Page View
Custom Event
with
Real user traffic
Chrome 44.0
276
total results between 8/30/2015 3:00 PM and 8/30/2015 8:00 PM (5 hours)
CUSTOM EVENT
212
PAGE VIEW
64
REQUEST
0
EXCEPTION
0
DEPENDENCY
0
8/30/2015, 6:44:39 PM - PAGE VIEW
team-board
Page view URL: /draftBoard/leagueid/teamId Page view duration: 4.41 hr
User agent string: Mozilla/5.0 (Macintosh; Intel Mac OS X 10_10_5) AppleWebKit/537.36 (KHTM...
8/30/2015, 6:44:39 PM - CUSTOM EVENT
open-team-roster
Device id: browser Operating system: Mac
8/30/2015, 6:31:24 PM - CUSTOM EVENT
execute-draft-pick
Device id: browser Operating system: Mac
8/30/2015, 6:30:55 PM - CUSTOM EVENT
execute-draft-pick
Device id: browser Operating system: Mac
8/30/2015, 6:30:16 PM - CUSTOM EVENT
execute-draft-pick
Device id: browser Operating system: Mac
8/30/2015, 6:29:40 PM - CUSTOM EVENT
execute-draft-pick
Device id: browser Operating system: Mac
8/30/2015, 6:29:19 PM - CUSTOM EVENT
execute-draft-pick
Device id: browser Operating system: Mac
8/30/2015, 6:27:35 PM - CUSTOM EVENT
execute-draft-pick
Device id: browser Operating system: Mac
8/30/2015, 6:24:49 PM - CUSTOM EVENT

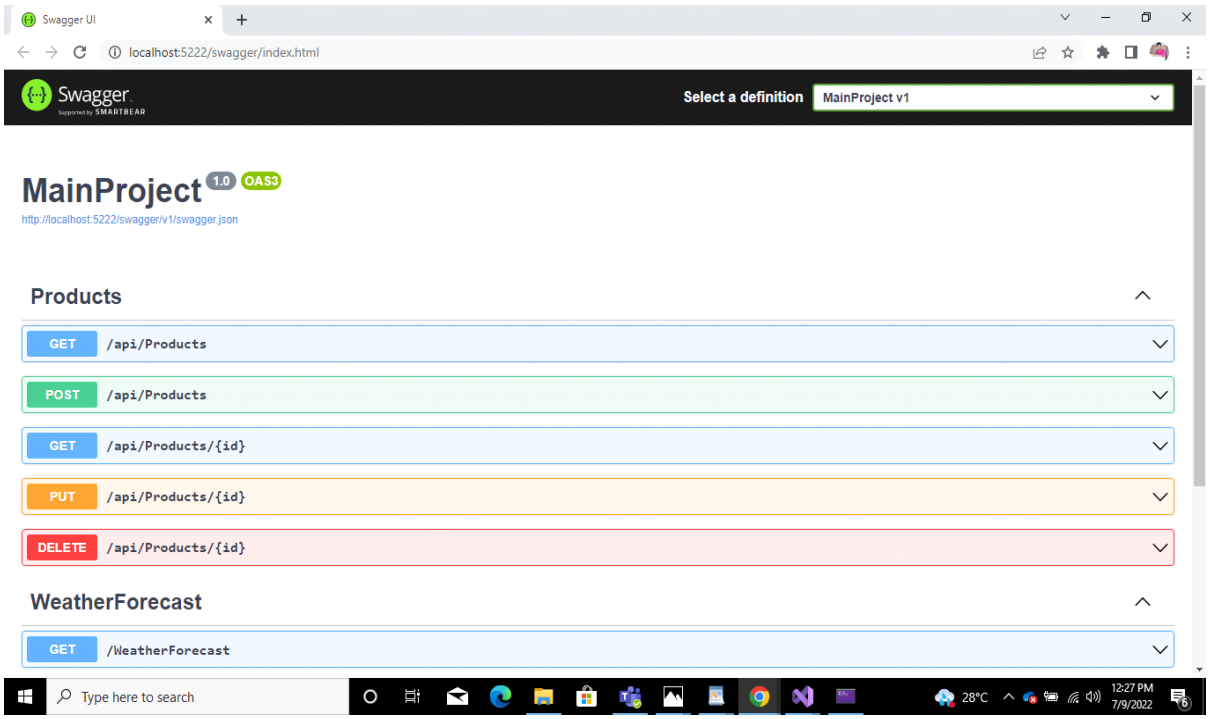
5.Configure Swagger for the Api :-

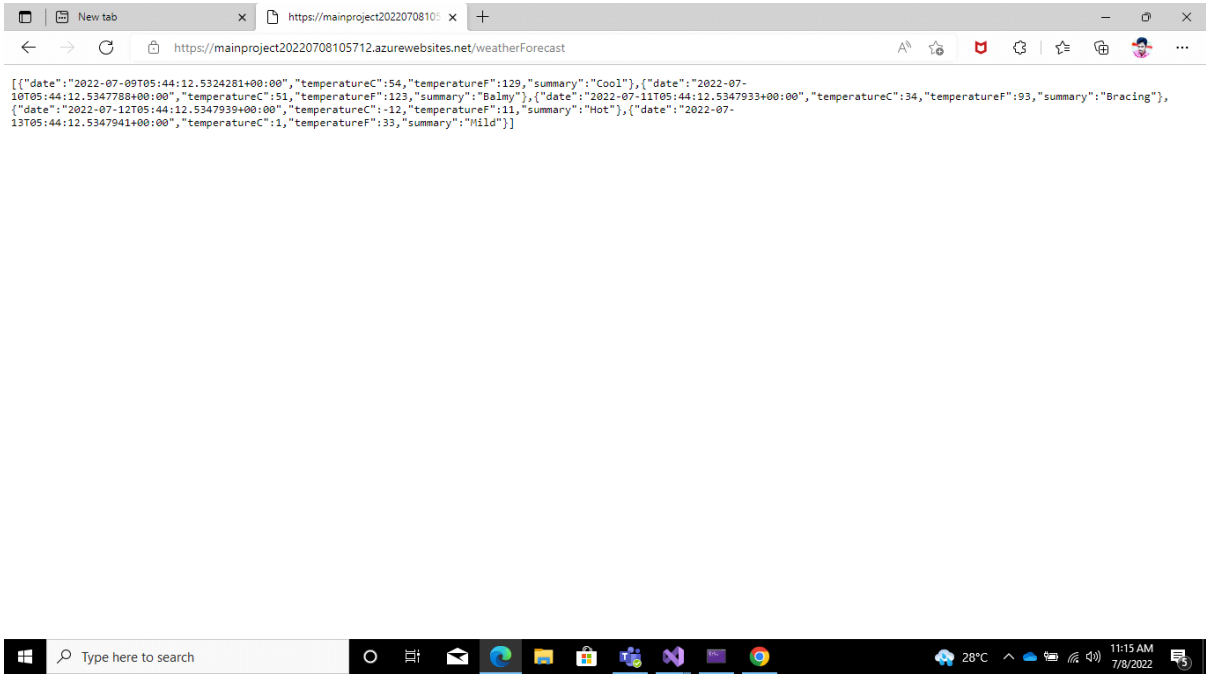
Swagger UI allows anyone — be it your development team or your end consumers — to visualize and interact with the API's resources without having any of the implementation logic in place. It's automatically generated from your OpenAPI (formerly known as Swagger) Specification, with the visual documentation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

Advantages of Swagger Api :-

- Testing is always crucial; on both the development and QA levels. Swagger provides a UI integrated page where all the API methods are listed and enables the user to test any method that is required from the UI.
- Swagger does the documentation in a conventional way (OpenAPI) which means it is in a machine-readable language. If a user starts the documentation first, Swagger will write the structure of the API automatically based on the written documentation. The API logic relies on the developer and business requirements but the structure will be written by Swagger itself.
- The user does not need a separate applications to test APIs. Just configure Swagger once in the project and access it through a URL to test the APIs.

- These are the major benefits users will see once they start using Swagger. Swagger provides immense support for a wide range of platforms, languages, and domains.


Swagger UI
localhost:5222/swagger/index.html
Swagger
Supported by SMARTBEAR
Select a definition
MainProject v1
MainProject
1.0
OAS3
http://localhost:5222/swagger/v1/swagger.json
Products
GET /api/Products
POST /api/Products
GET /api/Products/{id}
PUT /api/Products/{id}
DELETE /api/Products/{id}
WeatherForecast
GET /WeatherForecast
Type here to search
28°C
12:27 PM
7/9/2022


New tab
https://mainproject20220708105712.azurewebsites.net/weatherForecast
[{"date":"2022-07-09T05:44:12.5324281+00:00","temperatureC":54,"temperatureF":129,"summary":"Cool"},{"date":"2022-07-10T05:44:12.5347788+00:00","temperatureC":51,"temperatureF":123,"summary":"Balmy"},{"date":"2022-07-11T05:44:12.5347933+00:00","temperatureC":34,"temperatureF":93,"summary":"Bracing"},{"date":"2022-07-12T05:44:12.5347939+00:00","temperatureC":-12,"temperatureF":11,"summary":"Hot"},{"date":"2022-07-13T05:44:12.5347941+00:00","temperatureC":1,"temperatureF":33,"summary":"Mild"}]
Type here to search
28°C
11:15 AM
7/8/2022

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.

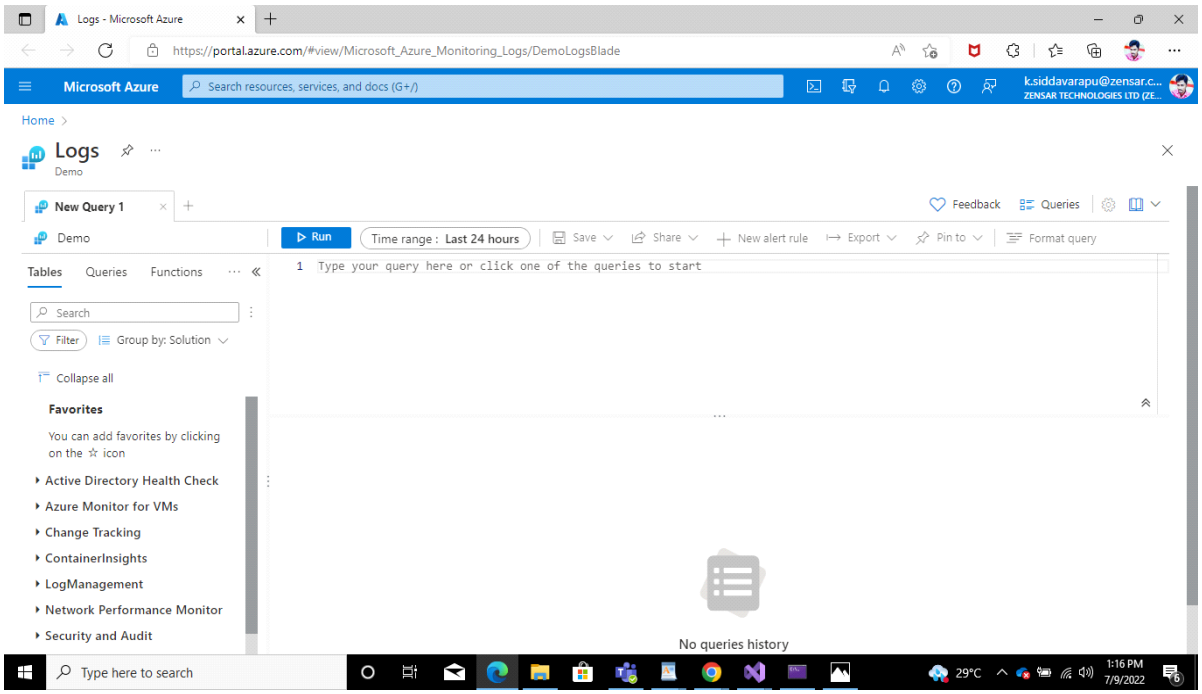
- You might write a simple query that returns a set of records and then use features of Log Analytics to sort, filter, and analyze them. Or you might write a more advanced query to perform statistical analysis and visualize the results in a chart to identify a particular trend.
- If you start Log Analytics from the **Azure Monitor** menu or the **Log Analytics workspaces** menu, you'll have access to all the records in a workspace. If you select **Logs** from another type of resource, your data will be limited to log data for that resource. For more information, see Log query scope and time range in Azure Monitor Log Analytics.

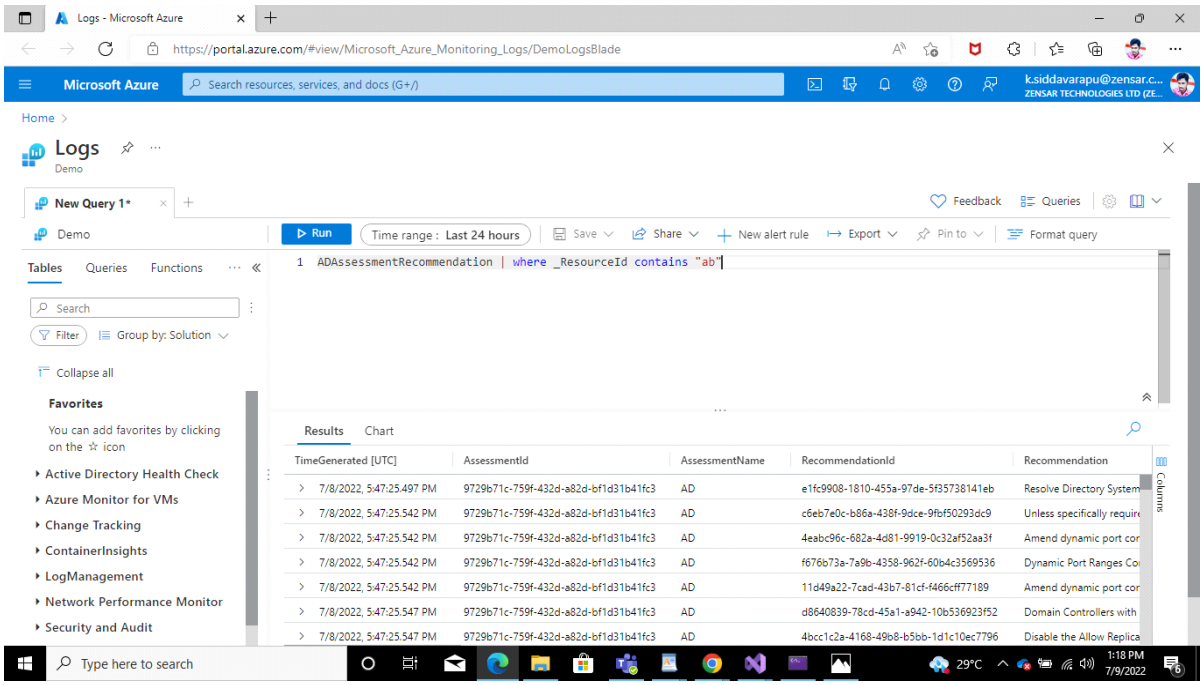
-> How Logs work by using Query language as shown in bellow images.

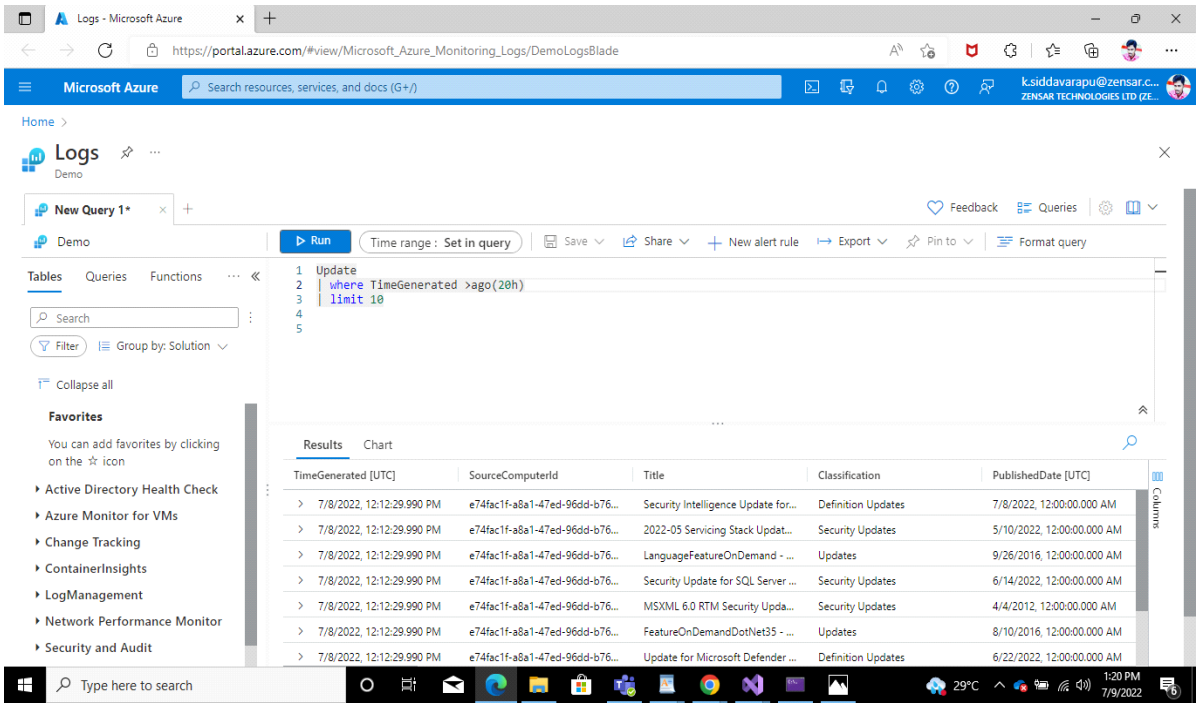
1. Open Azure portal and click on Logs.

2. Select the Tables what you check.

3. Write a query logic and click on Run.


Logs - Microsoft Azure
https://portal.azure.com/#view/Microsoft_Azure_Monitoring_Logs/DemoLogsBlade
Microsoft Azure
Search resources, services, and docs (G+/)
k.siddavarapu@zensar.c...
ZENSAR TECHNOLOGIES LTD (ZE...
Home
Logs
Demo
New Query 1
Feedback
Queries
Demo
Run
Time range : Last 24 hours
Save
Share
New alert rule
Export
Pin to
Format query
Tables
Queries
Functions
1 Type your query here or click one of the queries to start
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
No queries history
Type here to search
29°C
1:16 PM
7/9/2022


Logs - Microsoft Azure
https://portal.azure.com/#view/Microsoft_Azure_Monitoring_Logs/DemoLogsBlade
Microsoft Azure
Search resources, services, and docs (G+/)
k.siddavarapu@zensar.c...
ZENSAR TECHNOLOGIES LTD (ZE...
Home
Logs
Demo
New Query 1*
Feedback
Queries
Demo
Run
Time range : Last 24 hours
Save
Share
New alert rule
Export
Pin to
Format query
Tables
Queries
Functions
1 ADAssessmentRecommendation | where _ResourceId contains "ab"
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
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-f466cff77189 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
Columns
Type here to search
29°C
1:18 PM
7/9/2022



Final Project URL :-

https://mainproject20220708105712.azurewebsites.net/weatherForecast