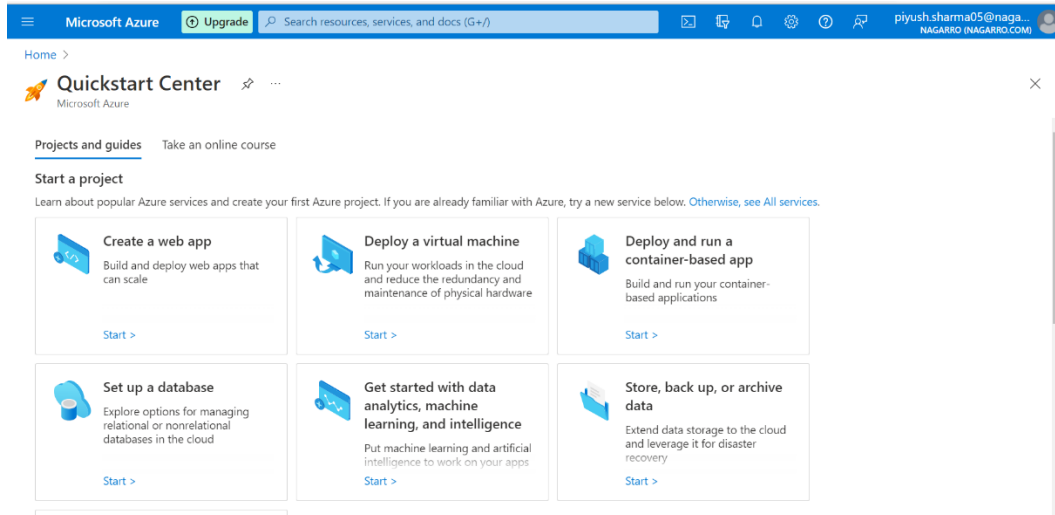


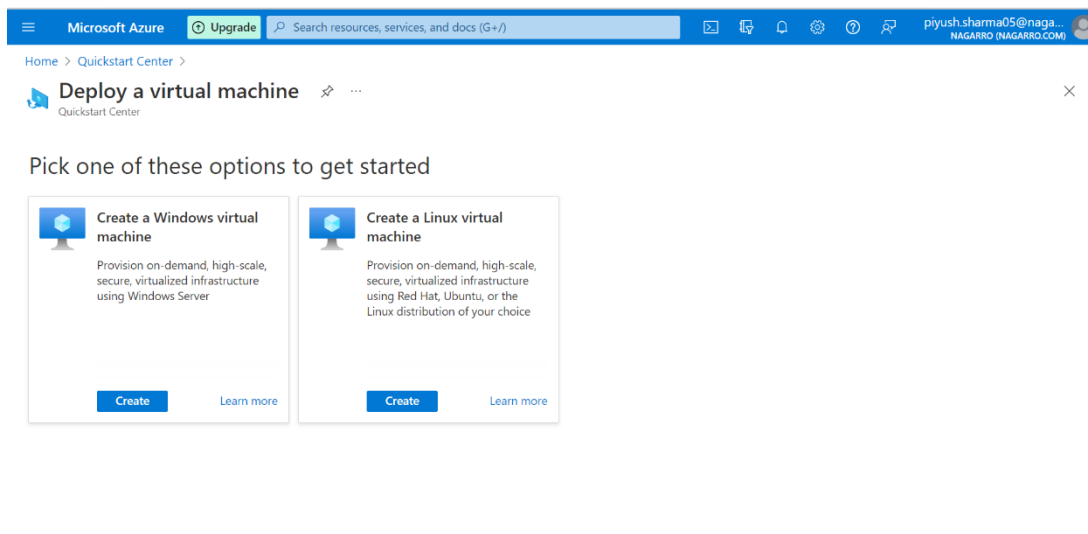
Azure Assignment

Create a virtual network with 2 subnets. Each subnet should have 16 Ips only.

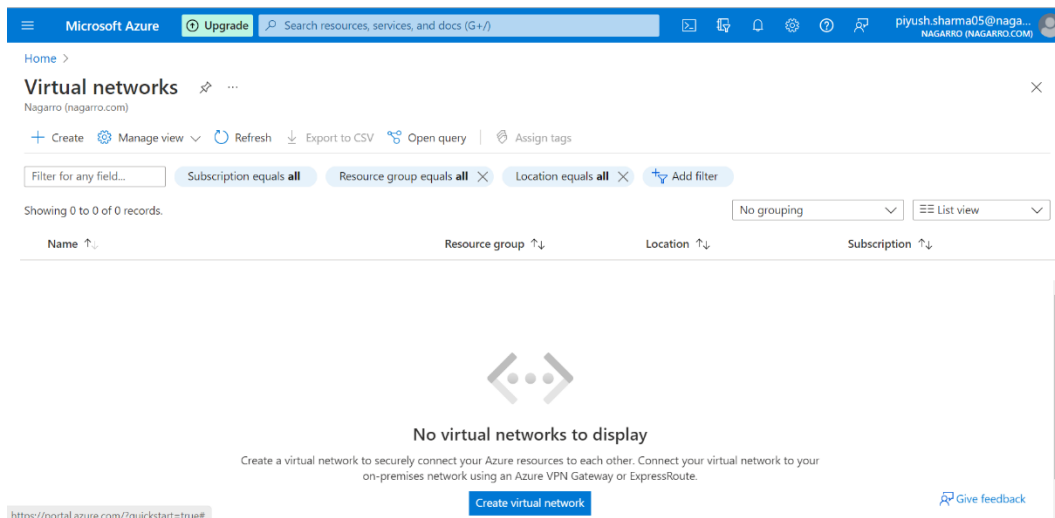
1. From side panel on home page of Azure portal select Quickstart Center and deploy virtual machine.



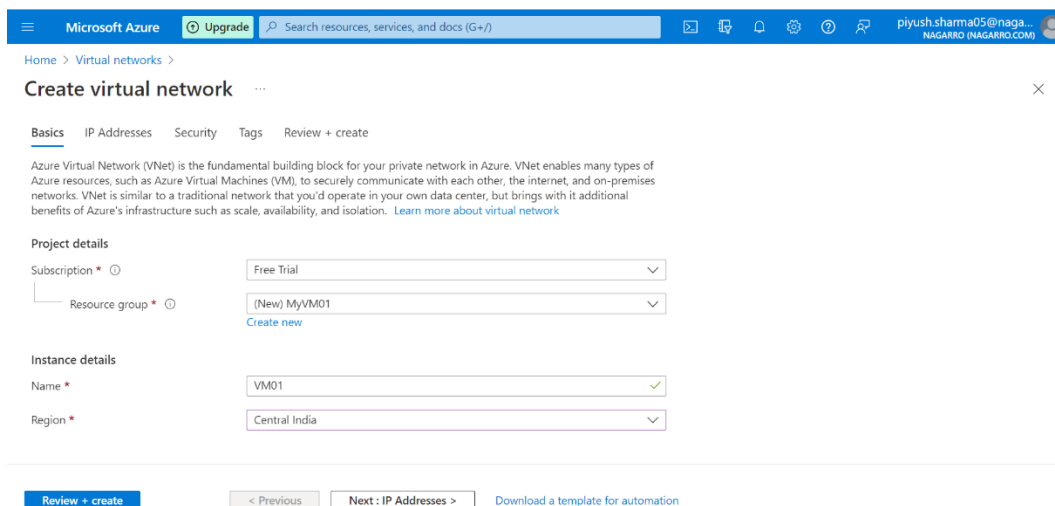
2. Select Create a Windows virtual machine.



3. Empty list of virtual networks will open up from there select create option to create new virtual network.

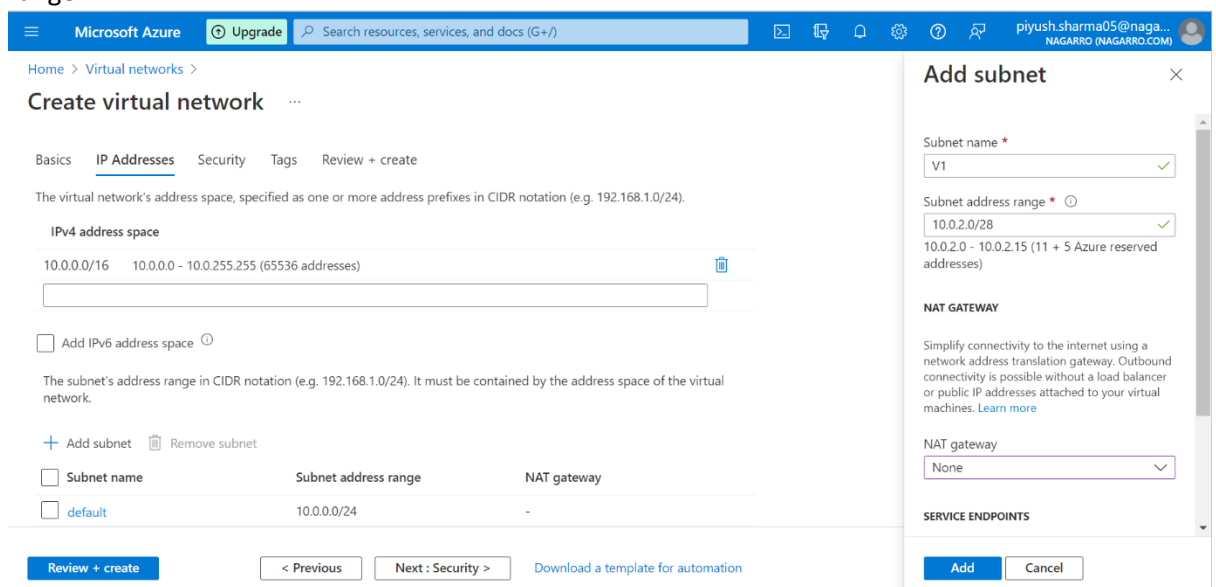


4. Click on create new next to Resource Group. Fill in Instance details. And click next



5. Fill in Subnet Address range manually since we need subnets with 16 IPS , we will use /28.

6. After editing default subnet click on add subnet to add another subnet with similar address range.



7. Click on next and verify security details.

The screenshot shows the 'Create virtual network' page in the Microsoft Azure portal. The 'Security' tab is selected, showing options for BastionHost, DDoS Network Protection, and Firewall. All three are set to 'Disable'. The 'Review + create' button is visible at the bottom.

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

Home > Virtual networks > Create virtual network

Basics IP Addresses **Security** Tags Review + create

BastionHost ☒ Disable ☐ Enable

DDoS Network Protection ☒ Disable ☐ Enable

Firewall ☒ Disable ☐ Enable

Review + create < Previous Next : Tags > Download a template for automation

8. Click on Review+Create to review and deploy VM.

The screenshot shows the 'Overview' page for a virtual network deployment in the Microsoft Azure portal. The deployment is complete, and the page displays deployment details, next steps, and a 'Go to resource' button. The right sidebar contains links for Cost Management, Microsoft Defender for Cloud, and Free Microsoft tutorials.

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

Home > Microsoft.VirtualNetwork-20230306023237 | Overview

Deployment

Search << Delete Cancel Redeploy Download Refresh

Overview Inputs Outputs Template

✓ Your deployment is complete

Deployment name: Microsoft.VirtualNetwork... Start time: 3/6/2023, 2:35:06 AM
Subscription: Free Trial Correlation ID: 43eb1ca7-8e93-40bd-be54-aa6
Resource group: MyVM01

Deployment details

Next steps

Go to resource

Give feedback
Tell us about your experience with deployment

Cost Management
Get notified to stay within your budget and prevent unexpected charges on your bill.
Set up cost alerts >

Microsoft Defender for Cloud
Secure your apps and infrastructure
Go to Microsoft Defender for Cloud >

Free Microsoft tutorials
Start learning today >

Work with an expert

Inside one of the subnets, create a VM and deploy an application code inside it and it should leverage the database on the cloud (any existing application created by you before)

Search virtual machine in the search bar.

Home > Virtual machines >

Create a virtual machine

Select the subscription to manage deployed resources and costs. Use resource groups to organize and manage all your resources.

Subscription *	Free Trial
Resource group *	project
Create new	
Instance details	
Virtual machine name *	vm1
✖ Virtual machine name must be unique in the current resource group.	
Region *	(US) East US
Availability options	Availability zone
Availability zone *	Zones 1

After providing the information then click on the create button and after creating click on the overview.

The screenshot shows the Azure portal interface for a virtual machine named 'vm1'. The left sidebar contains navigation options: Overview, Activity log, Access control (IAM), Tags, Diagnose and solve problems, Settings, Networking, Connect, Disks, Size, Microsoft Defender for Cloud, and Advisor recommendations. The main content area displays the 'Essentials' section with the following details:

Resource group (move)	PROJECT
Status	Running
Location	East US (Zone 1)
Subscription (move)	Free Trial
Subscription ID	452095db-33c4-4bd3-8d56-01eceed4a769
Availability zone	1
Tags (edit)	Click here to add tags
Operating system	Windows (Windows 10 Pro)
Size	Standard B1s (1 vcpu, 1 GiB memory)
Public IP address	20.115.58.120
Virtual network/subnet	project-vnet/subnet1
DNS name	firstvirtualmachine.eastus.cloudapp.azure.com

For running the virtual machine on the local computer then download the rdp file after clicking on the connect button.

▼ suggested method for connecting

To connect to your virtual machine via RDP, select an IP address, optionally change the port number, and download the RDP file.

IP address *

DNS name (firstvirtualmachine.eastus.cloudapp.azure.com)

Port number *

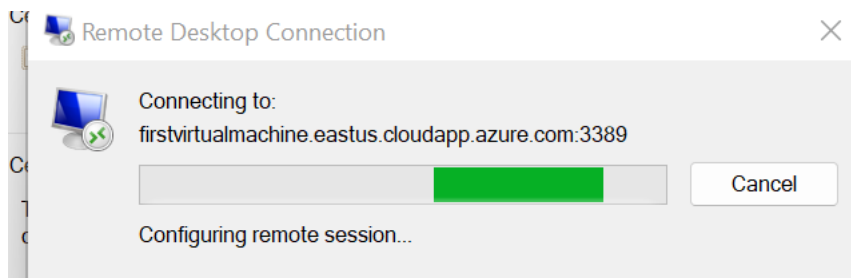
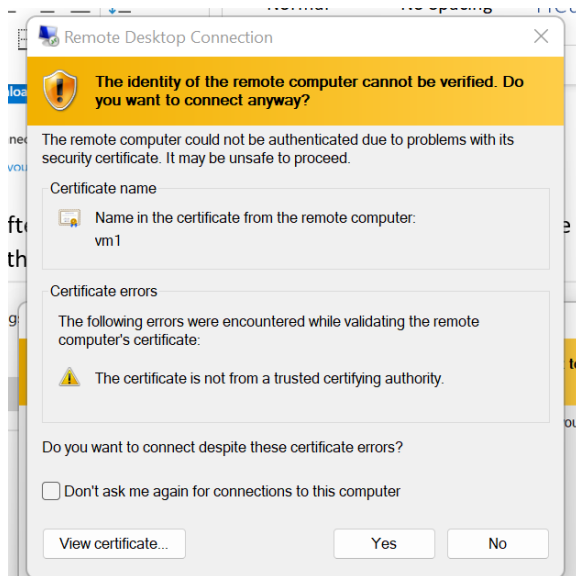
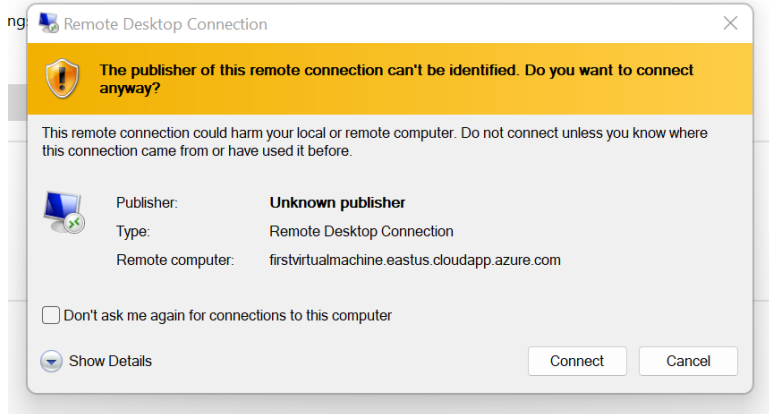
3389

[Download RDP File](#)

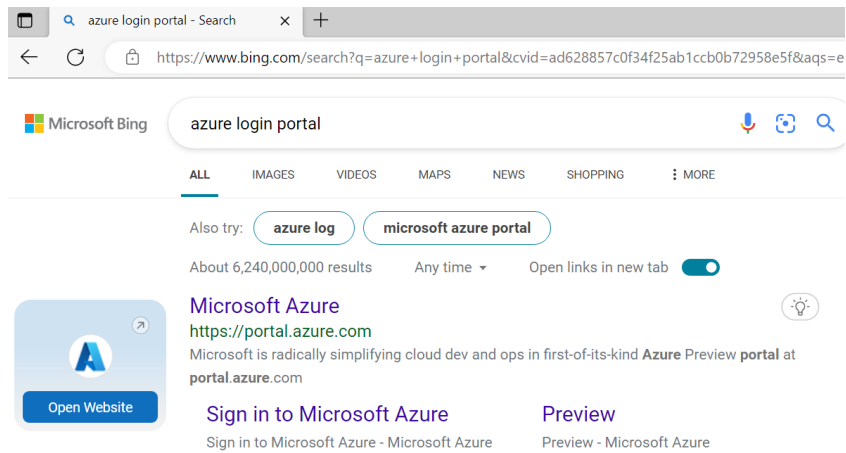
Can't connect?

[Test your connection](#)

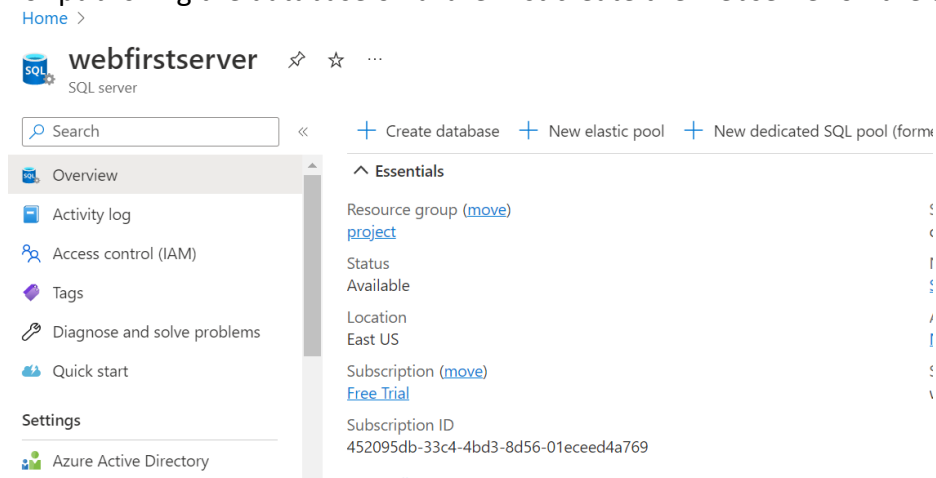
Then after downloading it run the rdp file and then enter the credentials to run the virtual machine.



After doing this the virtual machine starts running on your local machine.

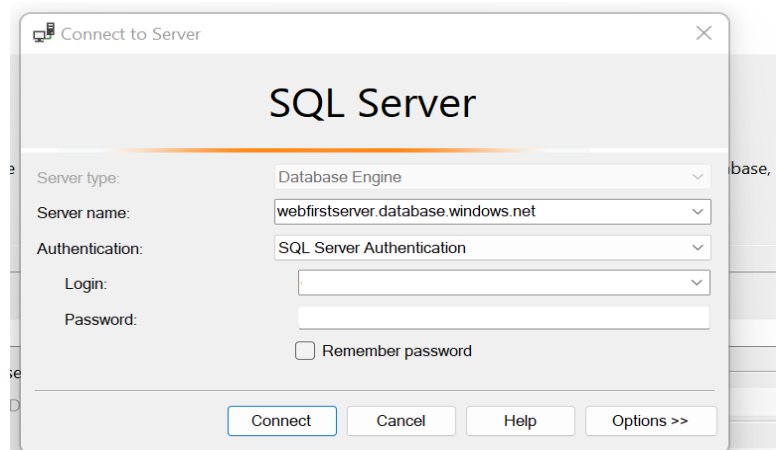


For publishing the database on azure first create the webserver on the azure.



Then open the Microsoft sql server management studio for publishing the database. Then right click on the database name and then click on deploy database to azure.

Then click on next and connect to azure web server by providing the credentials.



Specify Target Connection

Specify the name of the instance of SQL Server or the Microsoft Azure SQL Database server that will host the deployed database, name the new database, and then click Connect to login to the target server.

Server connection:
webfirstserver (chirag) Connect...

New database name:
Events

Microsoft Azure SQL Database settings

Edition of Microsoft Azure SQL Database: Basic

Maximum database size (GB): 2

Service Objective: Basic

Other settings

Temporary file name:
C:\Users\chirag\AppData\Local\Temp\Events-20221129154024.bacpac Browse...

< Previous Next > Cancel

After finishing it open the azure webserver then the database will be there.

webfirstserver SQL server

Search

+ Create database + New elastic pool + New dedicated SQL pool (formerly SQL DW) Import database Reset password ...

optimize performance. **CONFIGURED** log in Azure storage. **NOT CONFIGURED**

Available resources

Filter by name All types

1 database

Name	Type	Status	Pricing tier
Events	SQL database	Online	Basic

Events (webfirstserver/Events) SQL database

Search

Copy Restore Export Set server firewall Delete Connect with... Feedback

Overview

Activity log

Tags

Diagnose and solve problems

Getting started

Query editor (preview)

Settings

Compute + storage

Connection strings

Essentials

Resource group (move) : project

Status : Online

Location : East US

Subscription (move) : Free Trial

Subscription ID : 452095db-33c4-4bd3-8d56-01eceed4a7...

Tags (edit) : Click here to add tags

Server name : webfirstserver.database.windows.net

Elastic pool : No elastic pool

Connection strings : Show database connection strings

Pricing tier : Basic

Earliest restore point : 2022-11-28 10:19 UTC

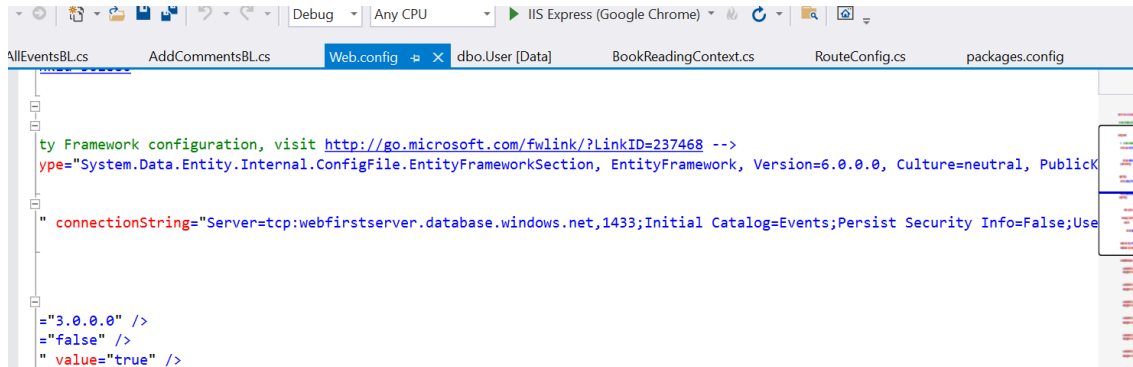
Getting started Monitoring Properties Features Notifications (0) Integrations Tutorials

For connecting the application with azure database copy the connection string and then paste it in web.config file of application.

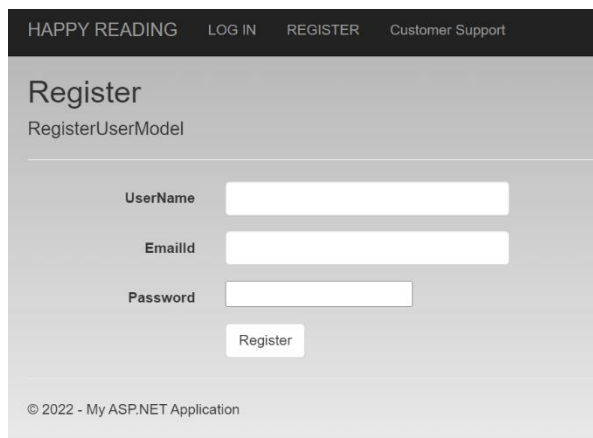
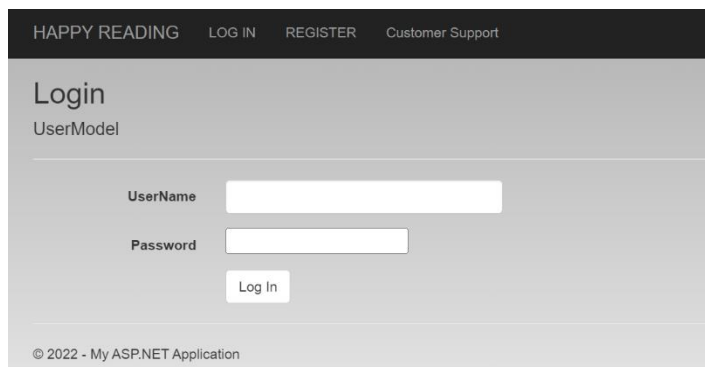
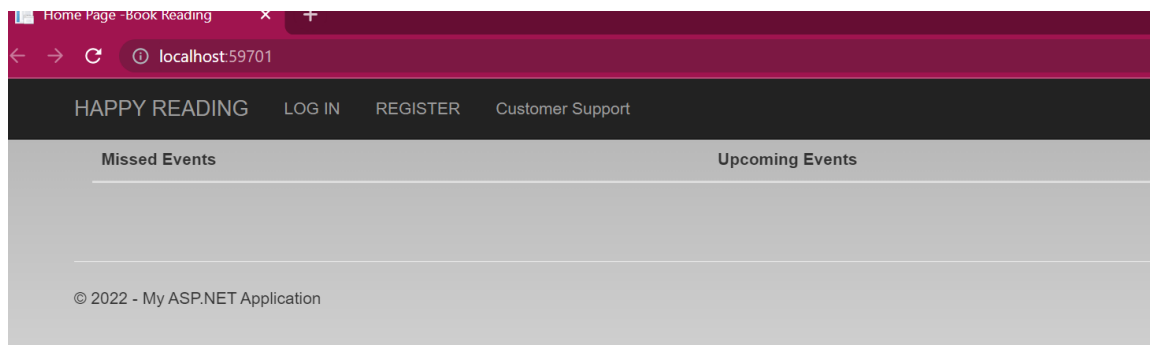
ADO.NET JDBC ODBC PHP Go

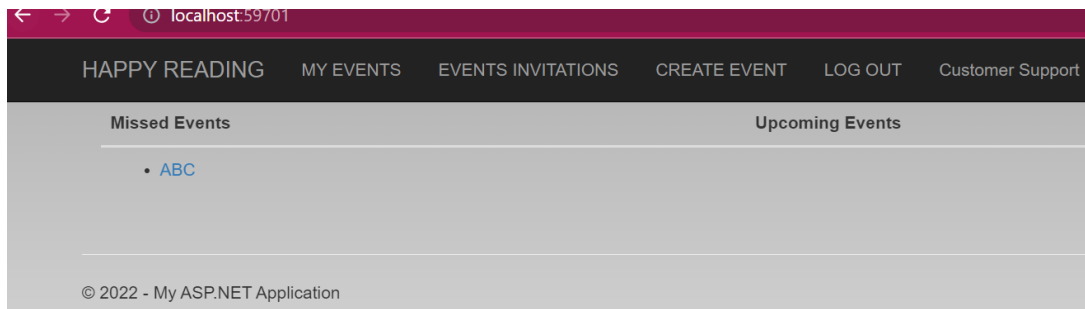
ADO.NET (SQL authentication)

```
Server=tcp:webfirstserver.database.windows.net,1433;Initial Catalog=Events;Persist Security Info=False;User ID=chirag;Password={your_password};MultipleActiveResultSets=False;Encrypt=True;TrustServerCertificate=False;Connection Timeout=30;
```



MVC Application



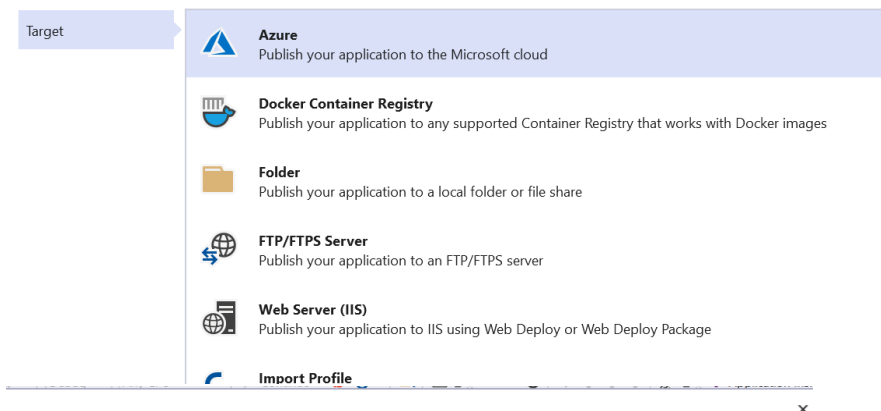


Deploy the same application to Azure App Service. It should also leverage the database on the cloud.

Open the visual studio the right click on the project and then click on the publish button.

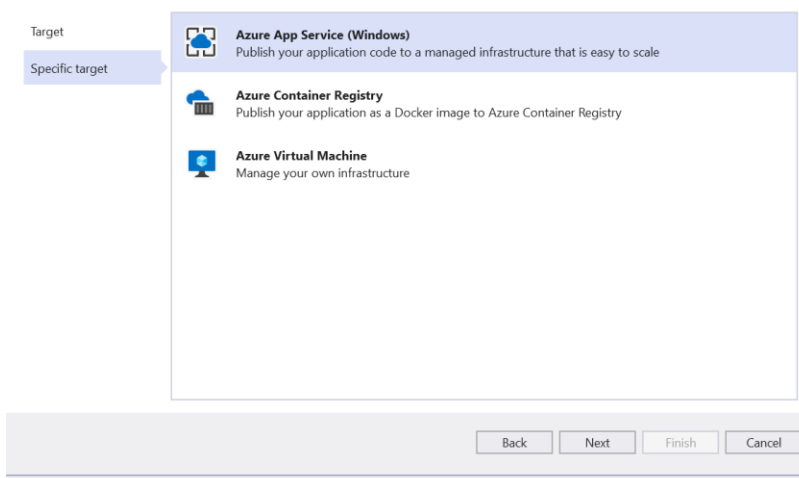
Publish

Where are you publishing today?



Publish

Which Azure service would you like to use to host your application?



After click on the finish button the application will be deploy using app service on azure cloud.

The screenshot shows the Azure Portal interface for a resource group named 'project'. The main heading is 'BookReadingApp' with a star icon and a menu. Below this is a search bar and a row of action buttons: Browse, Stop, Swap, Restart, Delete, Refresh, Get publish profile, and Reset publish profile. The left sidebar contains a navigation menu with 'Overview' selected, and other options like Activity log, Access control (IAM), Tags, Diagnose and solve problems, Microsoft Defender for Cloud, Events (preview), and Deployment. The 'Essentials' section on the right lists key information: Resource group (project), Status (Running), Location (Central US), Subscription (Free Trial), and Subscription ID (452095db-33c4-4bd3-8d56-01eceed4a769). On the far right, a 'URL' section shows the application's endpoint: <https://bookreadingapp.azurewebsites.net>, along with links for Health Check, App Service Plan, FTP/deployment username, FTP hostname, and FTPS hostname.

Then click on the url to run the web app.

The screenshot shows a web browser displaying the 'Login' page of the 'HAPPY READING' application. The URL bar shows <https://bookreadingapp.azurewebsites.net/Login/Login>. The page has a dark header with 'HAPPY READING', 'LOG IN', 'REGISTER', and 'Customer Support'. The main content area is titled 'Login' and 'UserModel'. It features two input fields: 'UserName' and 'Password'. Below the password field is a 'Log In' button. At the bottom, there is a copyright notice: '© 2022 - My ASP.NET Application'.

The screenshot shows a web browser displaying the 'Register' page of the 'HAPPY READING' application. The URL bar shows <https://bookreadingapp.azurewebsites.net/Register/Register>. The page has a dark header with 'HAPPY READING', 'LOG IN', 'REGISTER', and 'Customer Support'. The main content area is titled 'Register' and 'RegisterUserModel'. It features three input fields: 'UserName', 'EmailId', and 'Password'. Below the password field is a 'Register' button. At the bottom, there is a copyright notice: '© 2022 - My ASP.NET Application'.

Create the AKS cluster (2 nodes, smallest size VM) and deploy any two services on it. Services should be accessible from the internet.

Search Kubernetes services in the search bar.

The screenshot shows the Azure portal interface. The top section displays search results for 'Kubernetes services'. Below this, the 'BookReading_Aks_Cluster' is selected, showing its details in the 'Essentials' pane. The details include the resource group 'project', status 'Succeeded (Running)', location 'East US', subscription 'Free Trial', and node pools '1 node pool'.

Name	Type	Resource group	Kubernetes version	Location
BookReading_Aks_Cluster	Kubernetes service	project	1.23.12	East US

BookReading_Aks_Cluster Essentials

- Resource group: [project](#)
- Status: Succeeded (Running)
- Location: East US
- Subscription: [Free Trial](#)
- Subscription ID: 60000000000000000000000000000000
- Kubernetes version: [1.23.12](#)
- API server address: [bookreadingakscluster-dns-1ae00500.hcp.eastus.azmk8s.io](#)
- Network type (plugin): [Kubenet](#)
- Node pools: [1 node pool](#)

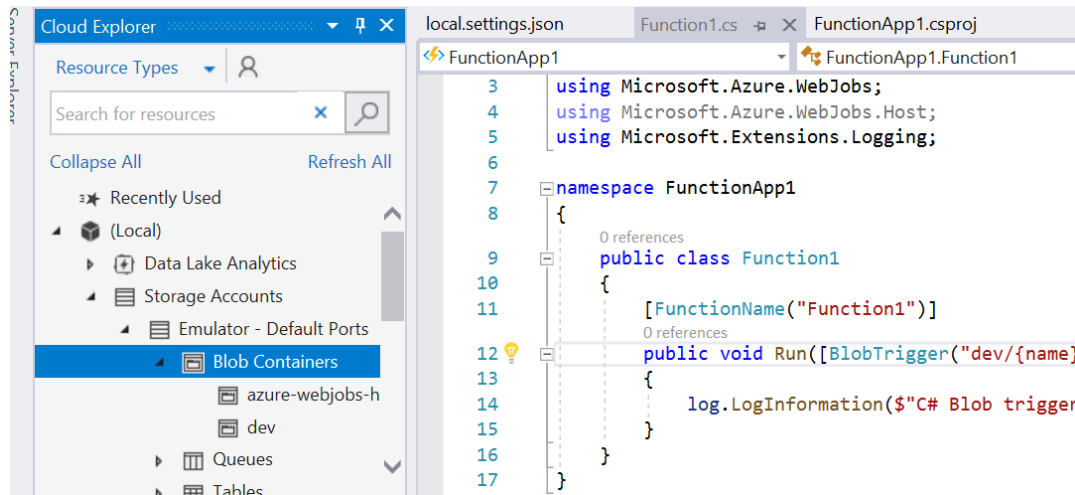
Create an Azure function that should trigger as soon as you upload a file in the blob storage. Function should be able to print the name of the file uploaded in the function.

First create azure function project on the visual studio.

```
App1 | FunctionApp1.Function1 | Run(Stream myBlob, string name, ILogger log)
using Microsoft.Azure.WebJobs;
using Microsoft.Azure.WebJobs.Host;
using Microsoft.Extensions.Logging;

namespace FunctionApp1
{
    public class Function1
    {
        [FunctionName("Function1")]
        public void Run([BlobTrigger("dev/{name}", Connection = "AzureWebJobsStorage")] Stream myBlob, string name, ILogger log)
        {
            log.LogInformation($"C# Blob trigger function Processed blob\n Name:{name} \n Size: {myBlob.Length} Bytes");
        }
    }
}
```

Copy the connection from local.settings.json file and paste it in function argument .
Open the cloud explorer and the create the blob .



Initially we don't have any file in blob container so it will show us this.

```

Functions:

    Function1: blobTrigger

For detailed output, run func with --verbose flag.
[2022-11-29T10:39:20.589Z] Host lock lease acquired by instance ID '0000000000000000000000004FFA1F5E'.

```

Then upload the file in blob container named dev container. Then it will show us this.

```

Functions:

    Function1: blobTrigger

For detailed output, run func with --verbose flag.
[2022-11-29T10:39:20.589Z] Host lock lease acquired by instance ID '0000000000000000000000004FFA1F5E'.
[2022-11-29T10:41:57.080Z] Executing 'Function1' (Reason='New blob detected: dev/azure screenshots.docx', Id=32b80f5-eb5b-494c-bcb4-2497fde9ed6d)
[2022-11-29T10:41:57.084Z] Trigger Details: MessageId: 767bd5b3-851f-4733-8b3a-2a42801ca241, DequeueCount: 1, InsertionTime: 2022-11-29T10:41:56.000+00:00, BlobCreated: 2022-11-29T10:41:54.000+00:00, BlobLastModified: 2022-11-29T10:41:54.000+00:00
[2022-11-29T10:41:57.088Z] C# Blob trigger function Processed blob
    Name: azure screenshots.docx
    Size: 394715 Bytes
[2022-11-29T10:41:57.101Z] Executed 'Function1' (Succeeded, Id=32b80f5-eb5b-494c-bcb4-2497fde9ed6d, Duration=92ms)

```