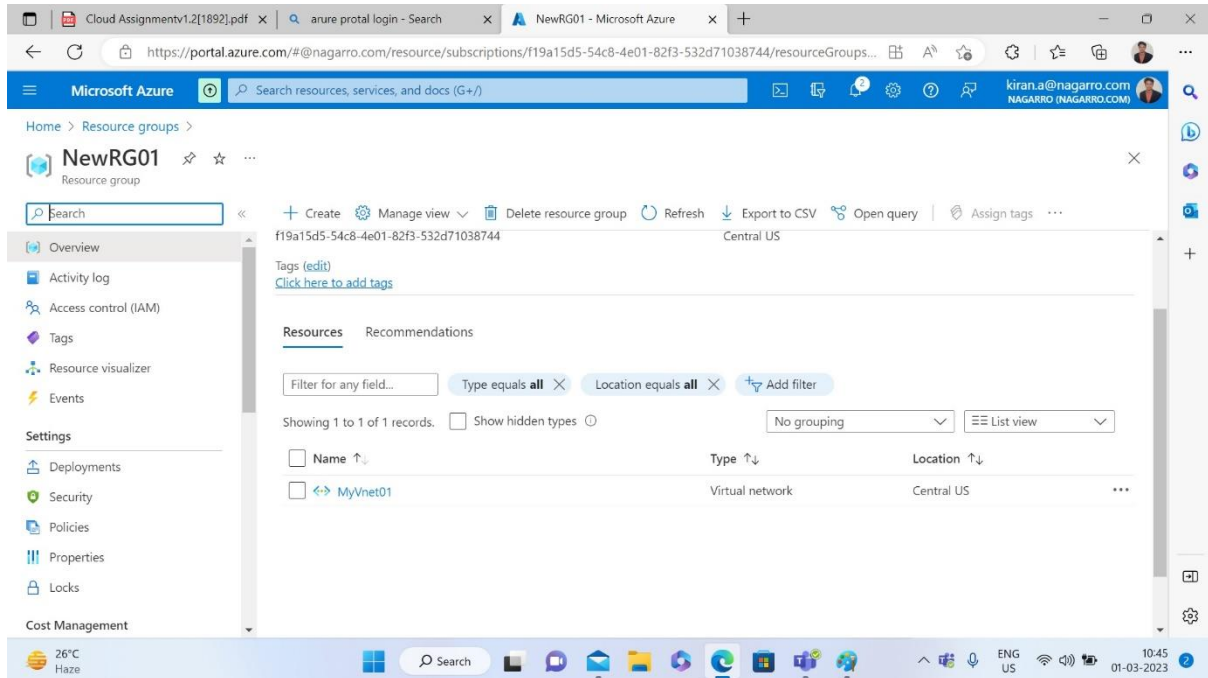


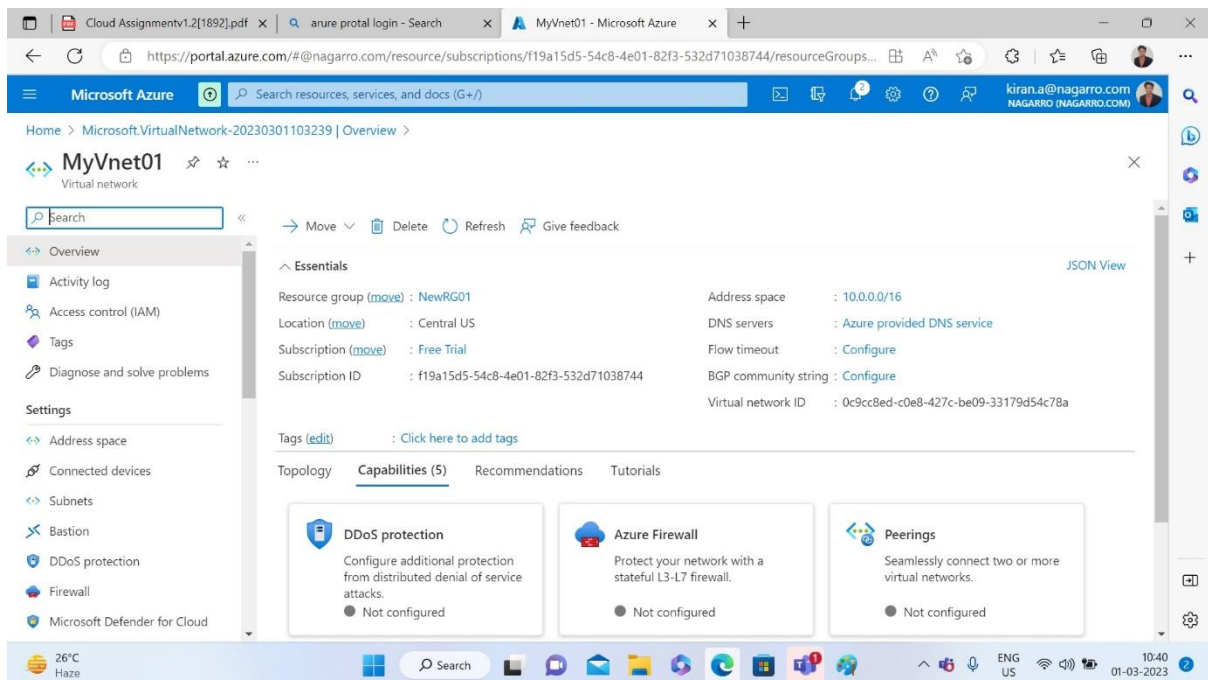
# Azure Cloud Assignment

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

## 1. Creating virtual network



## 2. Creating resource group



## 3. Creating two subnets

Cloud Assignmentv1.2[1892].pdf x azure portal login - Search x MyVnet01 - Microsoft Azure x +

https://portal.azure.com/#@nagarro.com/resource/subscriptions/f19a15d5-54c8-4e01-82f3-532d71038744/resourceGroups...

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

Home > Resource groups > NewRG01 > MyVnet01

### MyVnet01 | Subnets

Virtual network

Search

+ Subnet + Gateway subnet Refresh Manage users Delete

Overview

Activity log

Access control (IAM)

Tags

Diagnose and solve problems

Settings

Address space

Connected devices

Subnets

Bastion

DDoS protection

Firewall

Microsoft Defender for Cloud

Search subnets

Name ↑↓	IPv4 ↑↓	IPv6 ↑↓	Available IPs ↑↓	Delegated to ↑↓	Security group ↑↓	Route
Subnet1	10.0.0.0/28	-	11	-	-	-
Subnet2	10.0.0.16/28	-	11	-	-	-

27°C Very high UV

Search

ENG US

11:48 01-03-2023

azure portal login - Search x Create a virtual machine - Micro x Cloud Assignmentv1.2[1892].pdf x +

https://portal.azure.com/#create/Microsoft.VirtualMachine

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

Home >

### Create a virtual machine

Validation passed

Basics Disks Networking Management Monitoring Advanced Tags Review + create

Cost given below is an estimate and not the final price. Please use [Pricing calculator](#) for all your pricing needs.

PRODUCT DETAILS

1 X Standard B1s by Microsoft

Subscription credits apply

1.4607 INR/hr

Terms of use | Privacy policy

Pricing for other VM sizes

TERMS

Create

< Previous Next >

Download a template for automation

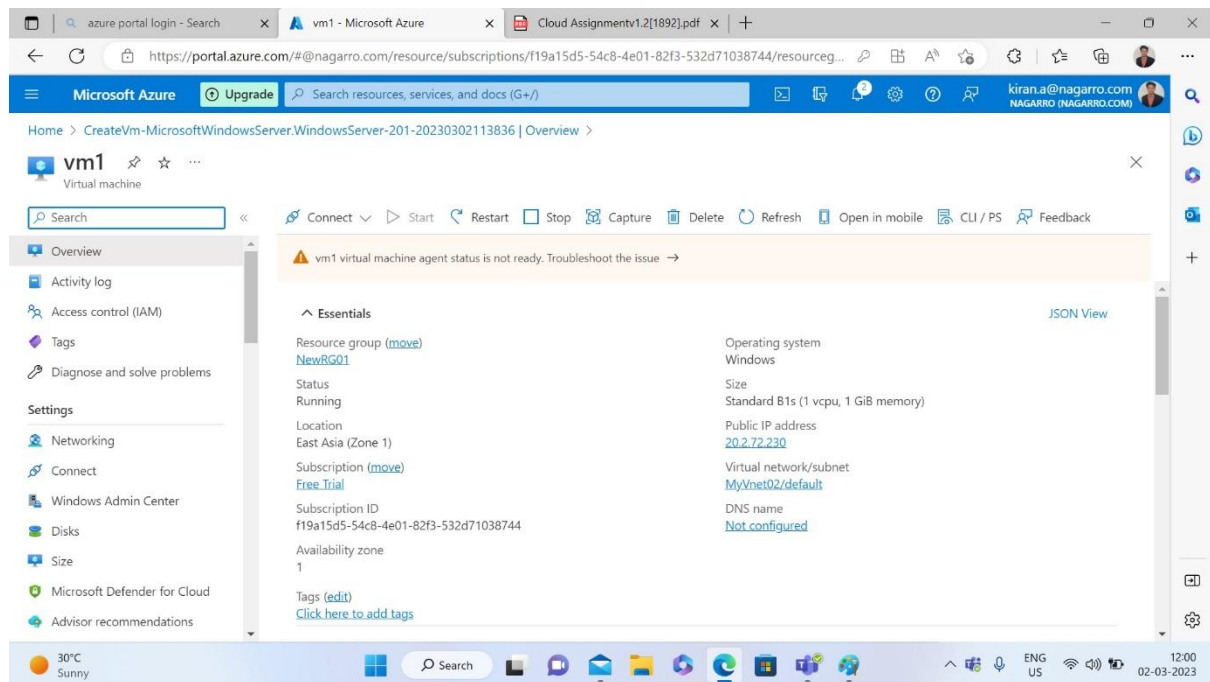
Give feedback

26°C Sunny

Search

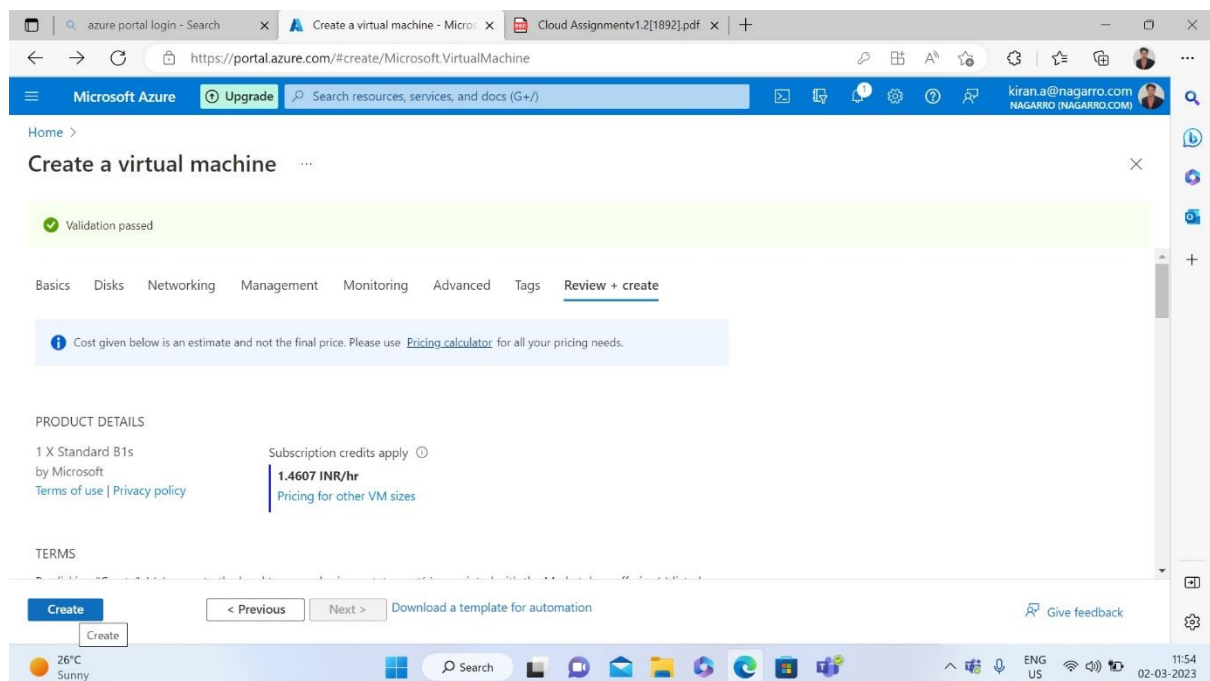
ENG US

11:54 02-03-2023

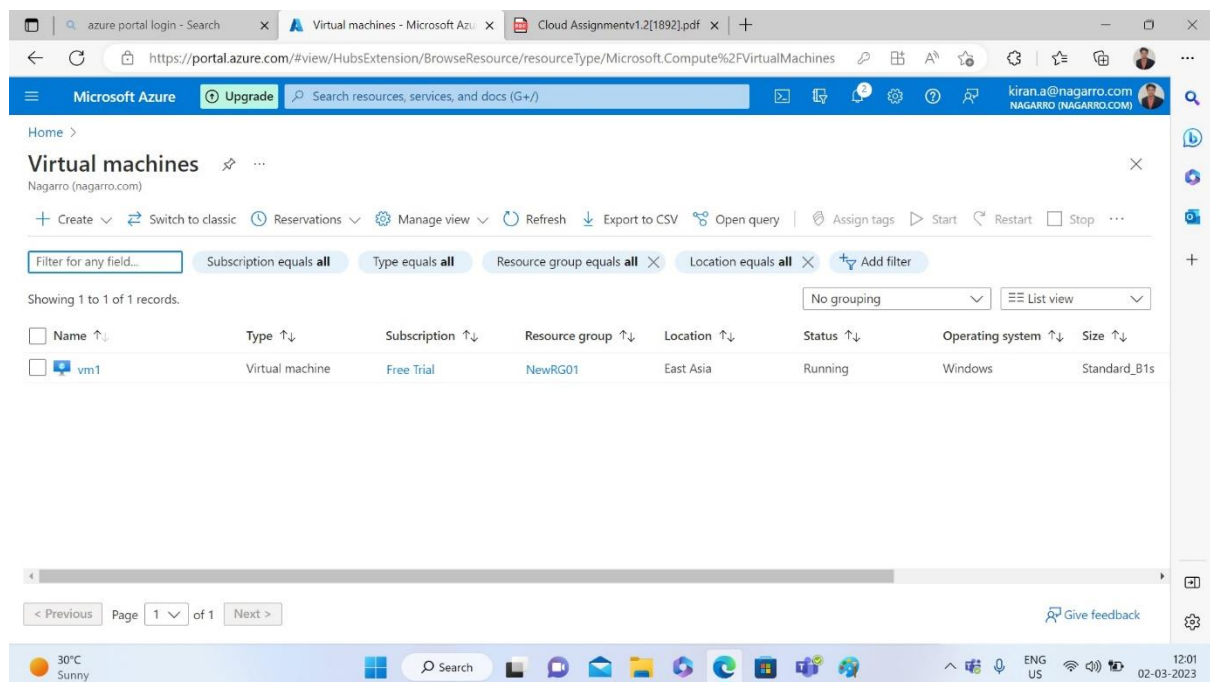


**Inside one of the subnet, create a VM and deploy an application code inside it and it should leverage the database on the cloud(any existing application created by you before).**

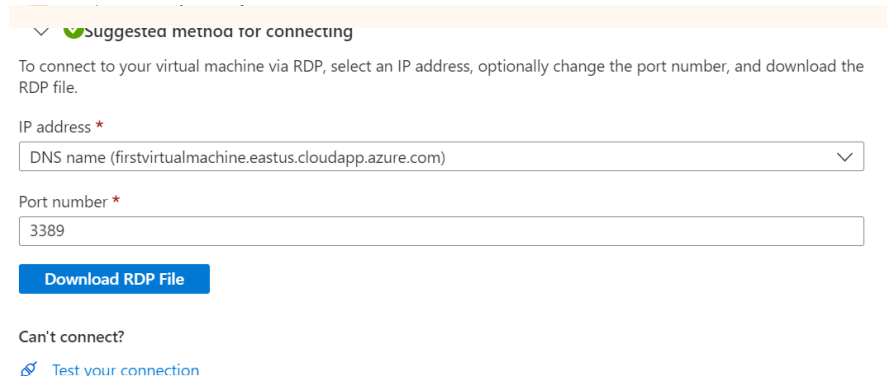
Click on Review + Create to review deploy VM.



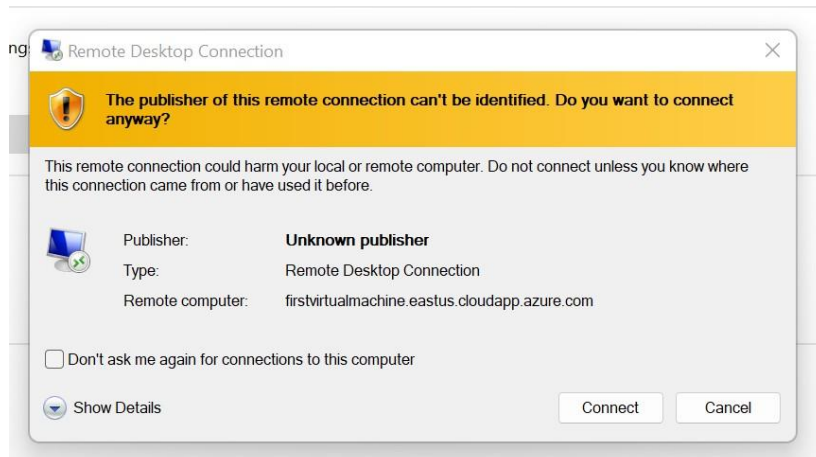
Inside one of the subnets, creating a VM

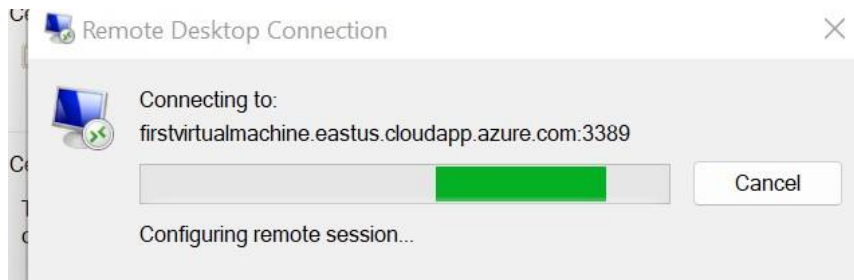
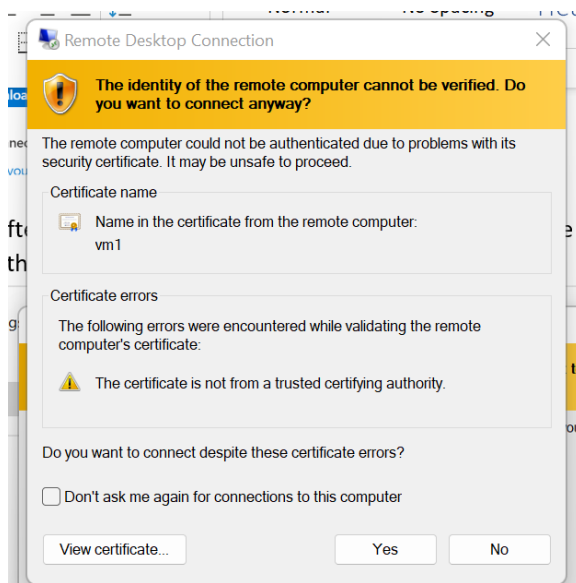


For running the virtual machine on the local computer then download the rdp file after clicking on the connect button.



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





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 Server name: webfirstserver.database.windows.net

Status: Online Elastic pool: No elastic pool

Location: East US Connection strings: Show database connection strings

Subscription (move): Free Trial Pricing tier: Basic

Subscription ID: 452095db-33c4-4bd3-8d56-01eceed4a7... Earliest restore point: 2022-11-28 10:19 UTC

Tags (edit): Click here to add tags

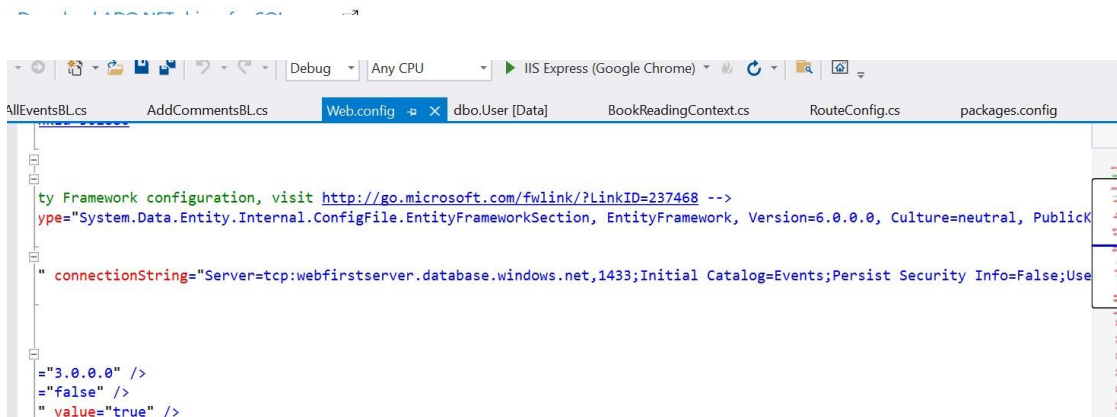
Getting started Monitoring Properties Features Notifications (0) Integrations Tutorials

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

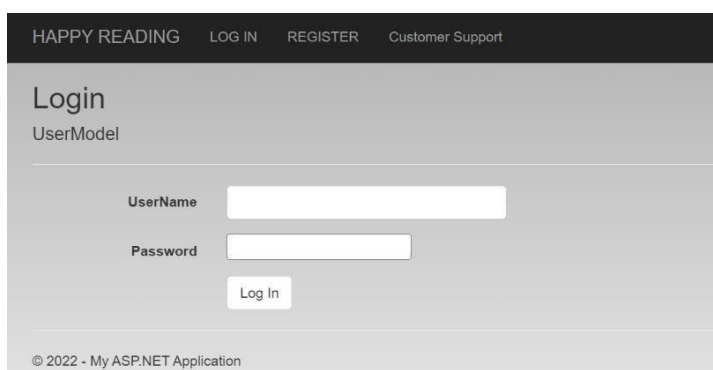
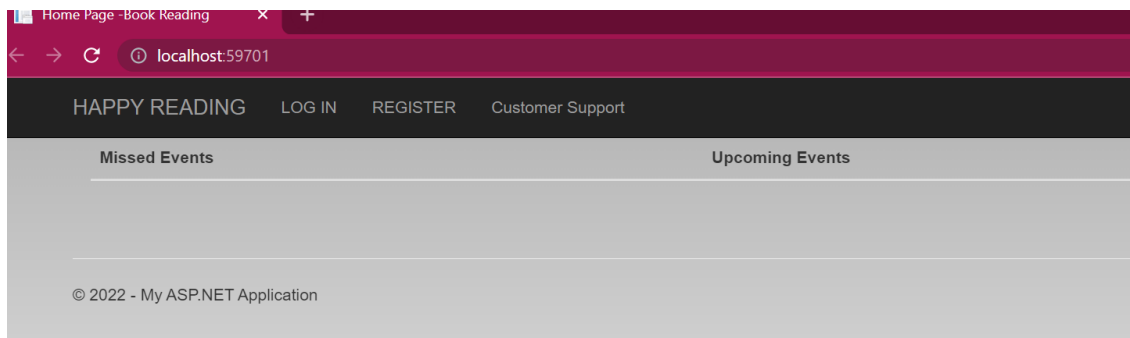
ADO.NET    JDBC    ODBC    PHP    Go

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



[←](#)
[→](#)
[↺](#)
localhost:59701

[HAPPY READING](#)
[MY EVENTS](#)
[EVENTS INVITATIONS](#)
[CREATE EVENT](#)
[LOG OUT](#)
[Customer Support](#)

Missed Events

Upcoming Events

- [ABC](#)


© 2022 - My ASP.NET Application


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


## 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 Deployment Package


**Import Profile**

Target

Specific target

**Azure App Service (Windows)**  
Publish your application code to a managed infrastructure that is easy to scale

**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



Microsoft Azure portal showing the deployment progress of a new database server. The deployment is in progress, with details including the deployment name, subscription, resource group, start time, and correlation ID. The deployment details table shows the status of various resources.

Resource	Type	Status	Operation detail
sqlatabaseset/databa...	Microsoft.Sql/servers/...	Accepted	Operation detail
sqlatabaseset/Default	Microsoft.Sql/servers/...	OK	Operation detail
sqlatabaseset	Microsoft.Sql/servers	OK	Operation detail
sqlatabaseset	Microsoft.Sql/servers	Created	Operation detail

Microsoft Azure portal showing the overview of the MVCAssignmentProject Web App. The overview includes the resource group, status, location, subscription, and tags. The deployment details section shows the deployment slots and configuration.

Resource group (move): newrg01  
Status: Running  
Location (move): East US  
Subscription (move): Free Trial  
Subscription ID: f19a15d5-54c8-4e01-82f3-532d71038744

Tags (edit):

Properties Monitoring Logs Capabilities Notifications Recommendations

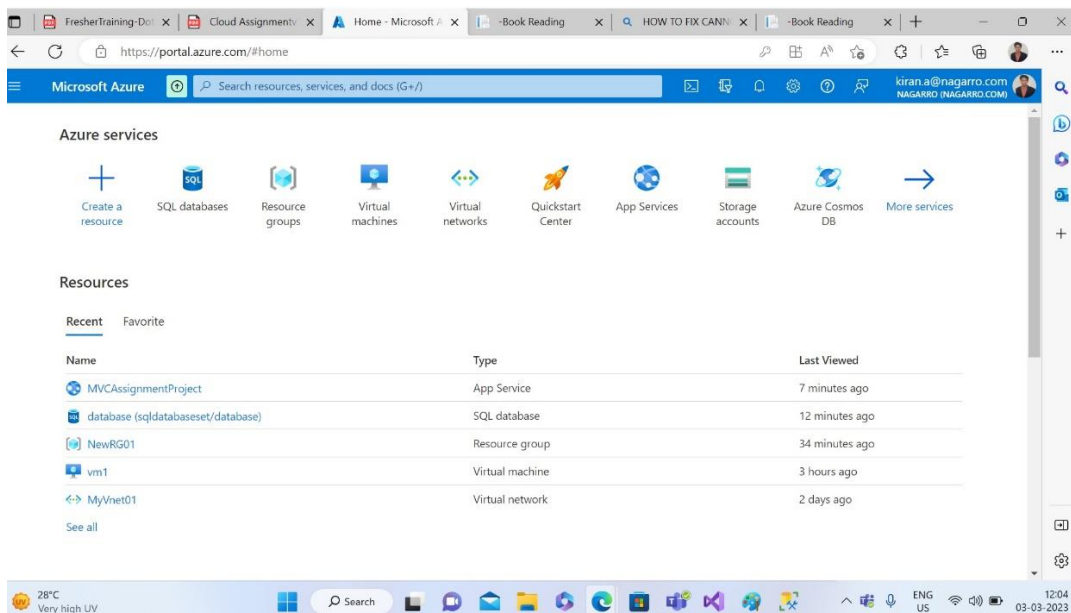
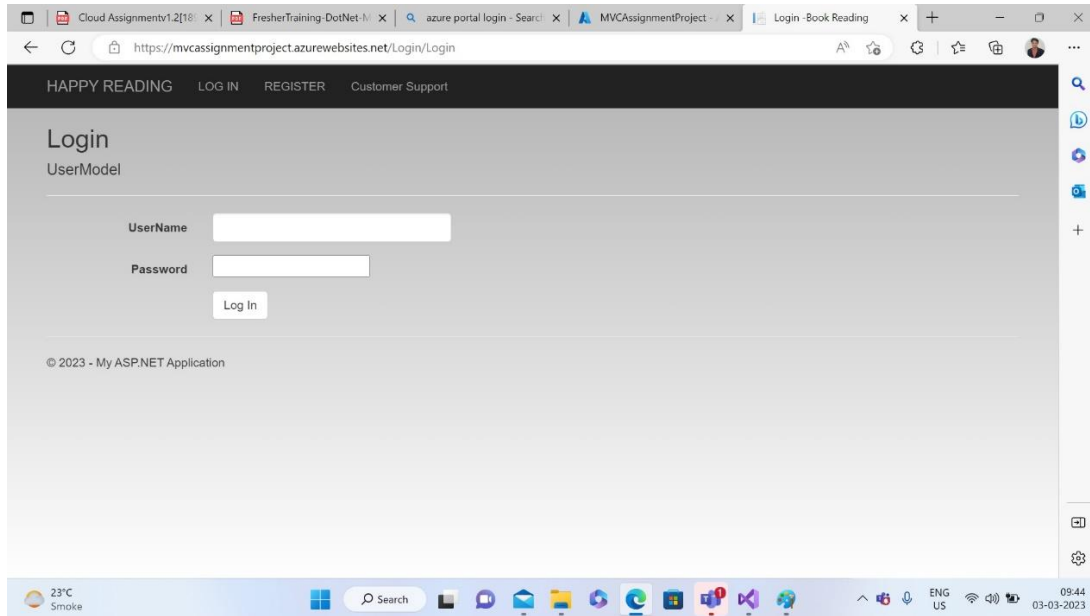
Web app  
Name: MVCAssignmentProject  
Publishing model: Code

Domains

Visual Studio Code showing the output of the MVCAssignmentProject Web App deployment. The output displays the build and deployment process, including the creation of the web app and the successful deployment to the Azure portal.

```
Output: Build
Web Publish Activity: MVCAssignment: Publish
Show output from: Build
>Updating directory (MVCAssignmentProject\Views\BookReadingEvent)...
>Adding file (MVCAssignmentProject\Views\BookReadingEvent\AllEvents.cshtml)...
>Adding file (MVCAssignmentProject\Views\BookReadingEvent\Comments.cshtml)...
>Adding file (MVCAssignmentProject\Views\BookReadingEvent\CreateEvent.cshtml)...
>Adding file (MVCAssignmentProject\Views\BookReadingEvent\CreateEventPost.cshtml)...
>Adding file (MVCAssignmentProject\Views\BookReadingEvent\EditEvent.cshtml)...
>Adding file (MVCAssignmentProject\Views\BookReadingEvent\EventsInvitedTo.cshtml)...
>Adding file (MVCAssignmentProject\Views\BookReadingEvent\MissedEvents.cshtml)...
>Adding file (MVCAssignmentProject\Views\BookReadingEvent\MyEvents.cshtml)...
>Adding file (MVCAssignmentProject\Views\BookReadingEvent\UpcomingEvents.cshtml)...
>Adding file (MVCAssignmentProject\Views\BookReadingEvent\ViewEvent.cshtml)...
>Updating directory (MVCAssignmentProject\Views\Home)...
>Adding file (MVCAssignmentProject\Views\Home>About.cshtml)...
>Adding file (MVCAssignmentProject\Views\Home>AboutLogin.cshtml)...
>Updating directory (MVCAssignmentProject\Views\Login)...
>Adding file (MVCAssignmentProject\Views\Login\Login.cshtml)...
>Updating directory (MVCAssignmentProject\Views\Register)...
>Adding file (MVCAssignmentProject\Views\Register\Register.cshtml)...
>Updating directory (MVCAssignmentProject\Views\Shared)...
>Adding file (MVCAssignmentProject\Views\Shared\Error.cshtml)...
>Adding file (MVCAssignmentProject\Views\Shared\Layout.cshtml)...
>Adding file (MVCAssignmentProject\Views\Web.config)...
>Adding file (MVCAssignmentProject\Views\WebStart.cshtml)...
>Adding file (MVCAssignmentProject\Web.config)...
>Adding ACLs for path (MVCAssignmentProject)...
>Adding ACLs for path (MVCAssignmentProject)...
>Publish Succeeded.
>Web App was published successfully https://mvcassignmentproject.azurewebsites.net/
===== Build: 4 succeeded, 0 failed, 0 up-to-date, 0 skipped =====
===== Publish: 1 succeeded, 0 failed, 0 skipped =====
```





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

## Creating a cluster

The screenshot shows the 'Create Kubernetes cluster' page in the Microsoft Azure portal. The page is titled 'Create Kubernetes cluster' and has a breadcrumb trail 'Home > Create a resource >'. The page is divided into several sections:

- resources:** This section contains two dropdown menus: 'Subscription' (set to 'Free Trial') and 'Resource group' (set to 'NewRG01'). Below the 'Resource group' dropdown is a link 'Create new'.
- Cluster details:** This section contains a 'Cluster preset configuration' dropdown (set to 'Standard (\$\$)'). Below this is a link 'Learn more and compare presets'. There are also three more dropdown menus: 'Kubernetes cluster name' (set to 'myakscluster'), 'Region' (set to '(US) East US'), and 'Availability zones' (set to 'Zones 1,2,3'). Below these is a note: 'High availability is recommended for standard configuration.'

At the bottom of the page, there are two buttons: 'Review + create' and '< Previous'. To the right of the 'Review + create' button is a link 'Give feedback'. The page also has a search bar at the top and a sidebar on the right with various icons.

## Creating two nodes

The screenshot shows the 'Create Kubernetes cluster' page in the Microsoft Azure portal, specifically the 'Primary node pool' section. The page is titled 'Create Kubernetes cluster' and has a breadcrumb trail 'Home > Create a resource >'. The page is divided into several sections:

- Primary node pool:** This section contains a paragraph explaining the number and size of nodes in the primary node pool. Below this is a 'Node size' dropdown (set to 'Standard DS2 v2'). Below the 'Node size' dropdown is a link 'Change size'. There are also two radio buttons: 'Manual' and 'Autoscale' (selected). Below the radio buttons is a link 'Autoscaling is recommended for standard configuration.' Below the radio buttons is a 'Node count range' slider (set to 1 to 2).

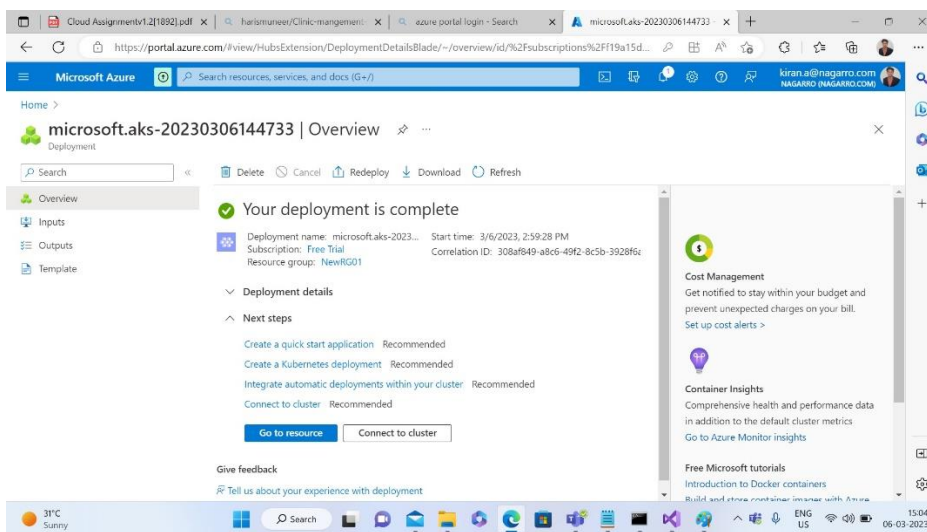
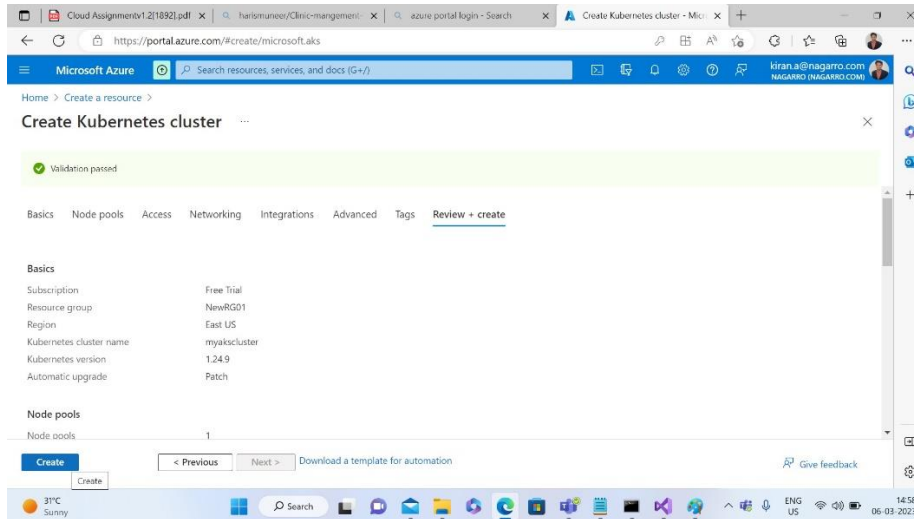
At the bottom of the page, there are two buttons: 'Review + create' and '< Previous'. To the right of the 'Review + create' button is a link 'Give feedback'. The page also has a search bar at the top and a sidebar on the right with various icons.

The screenshot shows the 'myakscluster' overview page in the Microsoft Azure portal. The page is titled 'myakscluster' and has a breadcrumb trail 'Home > microsoft.aks-20230306144733 | Overview >'. The page is divided into several sections:

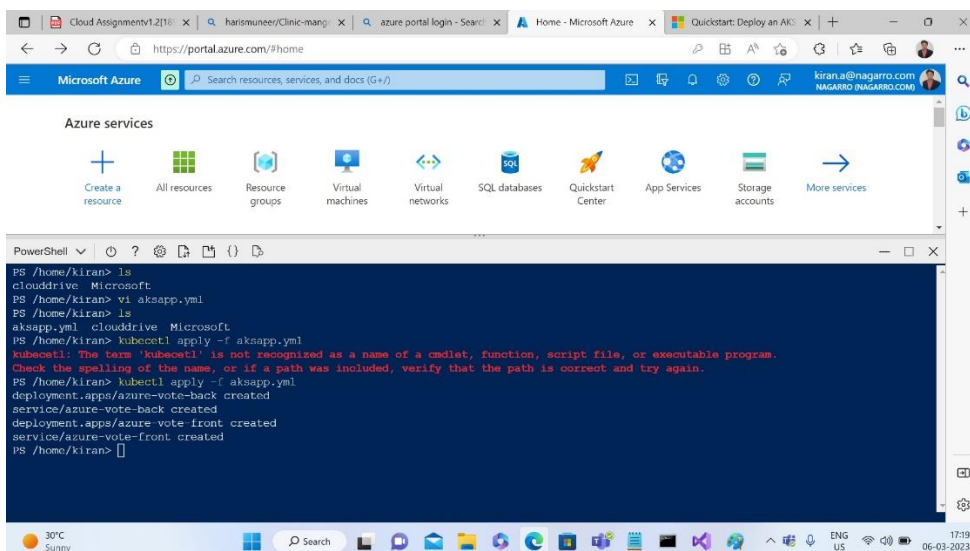
- Overview:** This section contains a search bar and a list of actions: 'Create', 'Connect', 'Start', 'Stop', 'Delete', 'Refresh', 'Open in mobile', and 'Give feedback'.
- Essentials:** This section contains a table with the following information:
  - Resource group: NewRG01
  - Status: Succeeded (Running)
  - Location: East US
  - Subscription: Free Trial
  - Subscription ID: f19a15d5-54c8-4e01-82f3-532d71038744
  - Tags: (edit)
  - Click here to add tags
- Kubernetes services:** This section contains a table with the following information:
  - Encryption type: Encryption at rest with a platform managed key
  - API server address: myakscluster-dns-3f7ctpdz.hcp.eastus.azure.io
  - Node pools: 1 node pool

At the bottom of the page, there are two buttons: 'Review + create' and '< Previous'. To the right of the 'Review + create' button is a link 'Give feedback'. The page also has a search bar at the top and a sidebar on the right with various icons.

Click on Review + Create to review and create cluster



## Using power shell connecting and create cluster



```

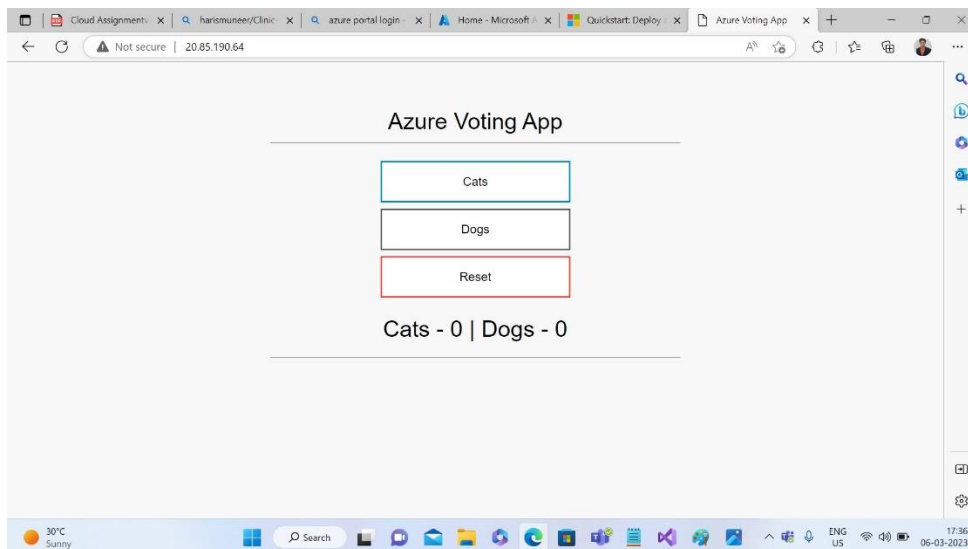
Merged "myakscluster" as current context in /home/kiran/.kube/config
PS /home/kiran> kubectl get nodes
NAME                                STATUS    ROLES    AGE   VERSION
aks-agentpool-22017134-vms000001  Ready    agent    158m  v1.24.9
PS /home/kiran> kubectl get rs
NAME                                DESIRED    CURRENT    READY    AGE
azure-vote-back-7cd69cc9ef          1           1           1        24m
azure-vote-front-7c95676c68         1           1           1        24m
PS /home/kiran> kubectl get all
NAME                                READY     STATUS    RESTARTS   AGE
pod/azure-vote-back-7cd69cc9ef-1jqtr 1/1       Running   0           24m
pod/azure-vote-front-7c95676c68-pprbv 1/1       Running   0           24m

NAME                                TYPE                CLUSTER-IP    EXTERNAL-IP    PORT(S)          AGE
service/azure-vote-back              ClusterIP           10.0.172.67   <none>          6379/TCP         24m
service/azure-vote-front             LoadBalancer        10.0.69.79    20.85.190.64   80:32670/TCP     24m
service/kubernetes                   ClusterIP           10.0.0.1      <none>          443/TCP          159m

NAME                                READY     UP-TO-DATE    AVAILABLE    AGE
deployment.apps/azure-vote-back      1/1       1              1            24m
deployment.apps/azure-vote-front     1/1       1              1            24m

NAME                                DESIRED    CURRENT    READY    AGE
replicaset.apps/azure-vote-back-7cd69cc9ef 1           1           1        24m
replicaset.apps/azure-vote-front-7c95676c68 1           1           1        24m
PS /home/kiran>

```



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.

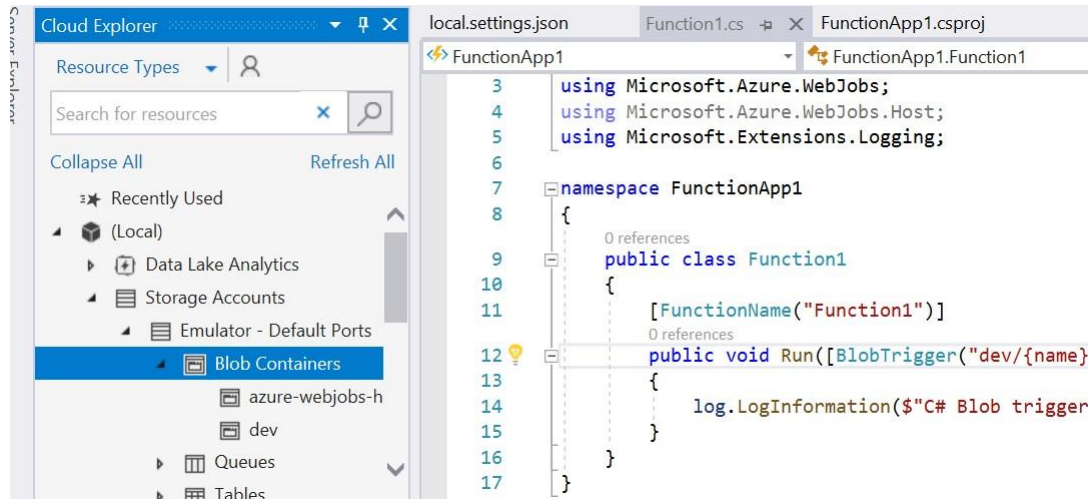
```

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
{
    [FunctionName("Function1")]
    public class Function1
    {
        public void Run([BlobTrigger("dev/{name}")] 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=32b800f5-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=32b800f5-eb5b-494c-bcb4-2497fde9ed6d, Duration=92ms)

```