

ASSIGNMENT 2

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Company	Hanu Software
Date	23/10/2018
Version	1.0



1.) Creating Domain with JSON

Clone the following github in your repo.

<https://github.com/Azure/azure-quickstart-templates/tree/master/active-directory-new-domain>

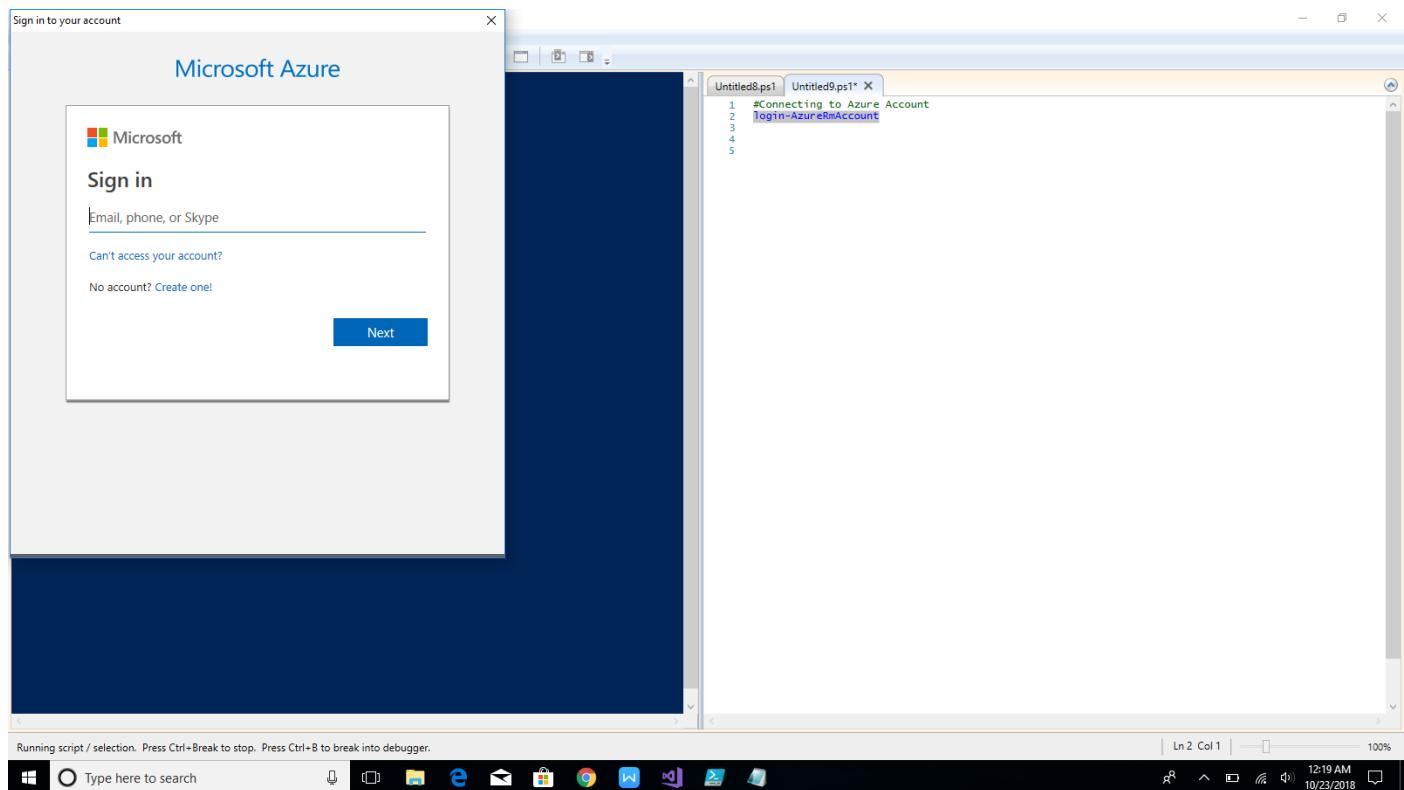
Using Powershell and the template in your repo, create a domain controller with following attributes.

- ✓ VM Name : HanuDC
- ✓ Vnet Name : HanuLabs-Net
- ✓ Vnet CIDR Block : 172.50.0.0/16
- ✓ Subnet CIDR Block : 172.50.60.0/24
- ✓ LB Name : HanuLabs-LB
- ✓ Location of all resources = East - US
- ✓ Resource group location = West - US

Sol.

Open Windows PowerShell ISE and do the following steps:

Step 1: Enter the command as shown in the picture and connect with the Azure Account:



Step 2: Now we need to create a Resource Group:

The screenshot shows a Windows PowerShell ISE window. On the left, the PowerShell session output shows the command `New-AzureRmResourceGroup -Name Hanu-RG -Location 'West US'` being run and its successful execution. On the right, an untitled PowerShell script file contains the following code:

```
1 #Connecting to Azure Account
2 Login-AzureRmAccount
3 #Creating Resource Group
4 New-AzureRmResourceGroup -Name Hanu-RG -Location 'West US'
```

The status bar at the bottom indicates the script is running.

Step 3: Now After creating the json file lets connect them with Resource Group:

The screenshot shows a Windows PowerShell ISE window. On the left, the PowerShell session output shows the command `New-AzureRmResourceGroupDeployment -Name Sonaal -ResourceGroupName Hanu-RG -TemplateUri E:\index.json` being run. A command-line prompt follows, asking for the `adminUsername`. On the right, an untitled PowerShell script file contains the following code:

```
1 Connecting to Azure Account
2 Login-AzureRmAccount
3 Creating Resource Group
4 New-AzureRmResourceGroup -Name Hanu-RG -Location 'West US'
5 Create a Virtual Network with two Subnets
6 New-AzureRmResourceGroupDeployment -Name Sonaal -ResourceGroupName Hanu-RG -TemplateUri E:\index.json
```

The status bar at the bottom indicates the script is running.

Fill the respective details and wait for the Deployment to occur:

The screenshot shows a Windows PowerShell ISE window with two panes. The left pane displays the output of a PowerShell session:

```
PS C:\Windows\system32> Login-AzureRmAccount
Account          : sonaal@kalrasonaal15sttuupesac.onmicrosoft.com
SubscriptionName : Azure For Students
SubscriptionId   : 779a9eb5-61c1-4572-8af3-e1a6667de9a8
TenantId         : ffdadb7e-976d-4350-b84e-97f5b8bf1a38
Environment      : AzureCloud

PS C:\Windows\system32> New-AzureRmResourceGroup -Name Hanu-RG -Location 'West US'

ResourceGroupName : Hanu-RG
Location          : westus
ProvisioningState : Succeeded
Tags              :
ResourceId        : /subscriptions/779a9eb5-61c1-4572-8af3-e1a6667de9a8/resourceGroups/Hanu-RG

PS C:\Windows\system32> New-AzureRmResourceGroupDeployment -Name Sonaal -ResourceGroupName Hanu-RG -TemplateFile E:\index.json
Supply values for the following parameters:
(Type !? for Help.)
adminUsername: rootadmin
domainName: Sonaal.skay
dnsPrefix: sonaal
```

The right pane contains a script titled "Untitled8.ps1" with the following content:

```
1 Connecting to Azure Account
2 Login-AzureRmAccount
3 Creating Resource Group
4 New-AzureRmResourceGroup -Name Hanu-RG -Location 'West US'
5 Create a Virtual Network with two Subnets
6 New-AzureRmResourceGroupDeployment -Name Sonaal -ResourceGroupName Hanu-RG -TemplateUri E:\index.json
7
8
```

Now wait for the Deployment.

After the successful deployment go to Virtual Machine in Azure Portal and you will see VM already Created :

The screenshot shows the Microsoft Azure portal interface. On the left, the navigation menu is visible with various service icons. The main area is titled "Virtual machines" under the "Compute" section. The blade shows a list of virtual machines:

NAME	TYPE	STATUS	RESOURCE GROUP	LOCATION	MAINTENANCE STATUS	SUBSCRIPTION
adVM	Virtual machine	Running	Hanu-RG	Central US	-	Azure for Students
aks-agentpool-22409415-0	Virtual machine	Running	MC_HanuRG_kubskay...	Central US	-	Azure for Students

Here the VNet is also created:

The screenshot shows the Microsoft Azure portal interface. The URL in the address bar is <https://portal.azure.com/#@kalrasonaal15stuupesac.onmicrosoft.com/resource/subscriptions/779a9eb5-61c1-4572-8af3-e1a6667de9a8/resourceGroups/Hanu-RG/providers/Microsoft.Compute/virtualMachines/adVM>. The user is signed in as Sonaal@kalrasonaal15stuupesac.onmicrosoft.com.

Microsoft Azure

adVM Virtual machine

Overview

Resource group (change)
Hanu-RG

Status
Running

Location
Central US

Subscription (change)
Azure for Students

Subscription ID
779a9eb5-61c1-4572-8af3-e1a6667de9a8

Computer name
adVM

Operating system
Windows

Size
Standard D2 v2 (2 vcpus, 7 GB memory)

Public IP address
104.43.240.51

Virtual network/subnet
adVNET/adSubnet

DNS name
sonaal.centralus.cloudapp.azure.com

Tags (change)
Click here to add tags

Show data for last: 1 hour | 6 hours | 12 hours | 1 day | 7 days | 30 days

CPU (average)

Network (total)

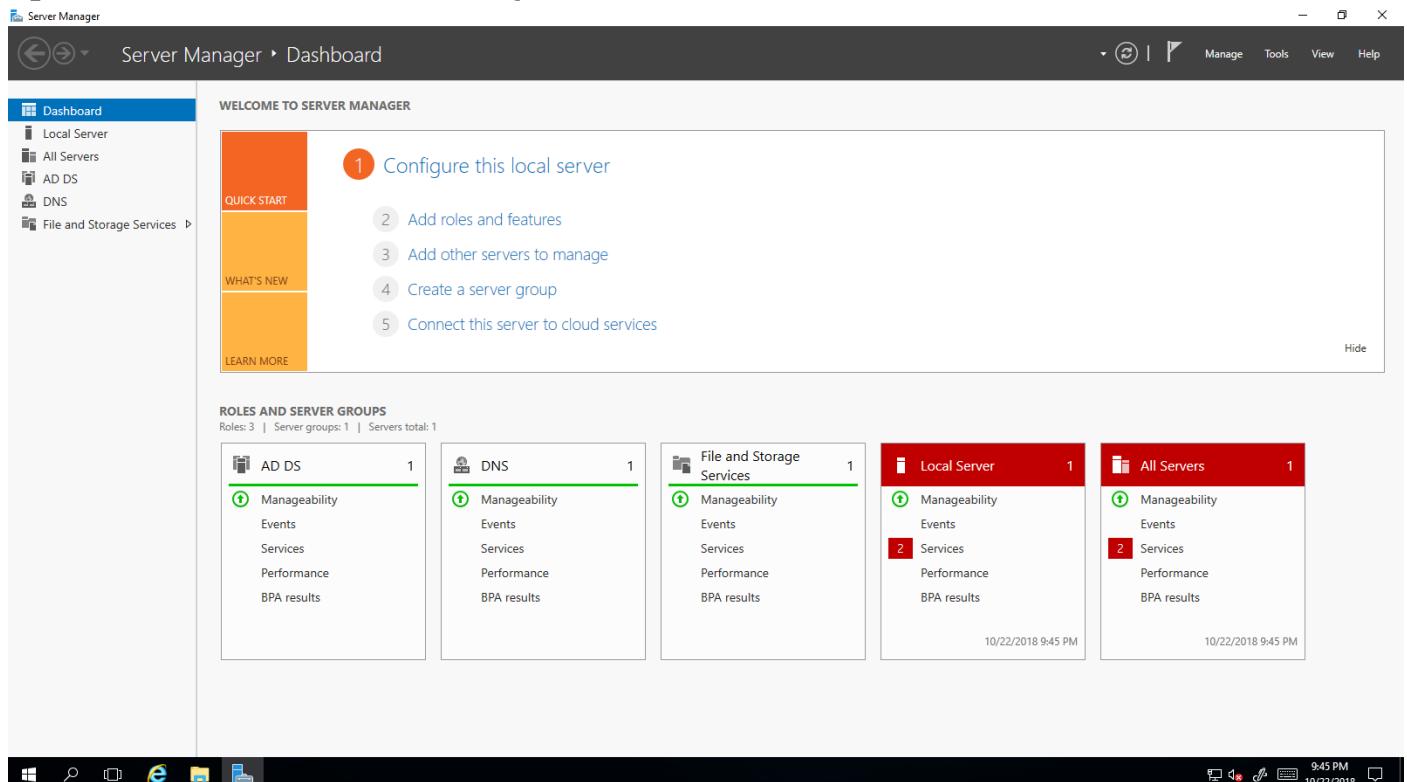
Windows taskbar at the bottom: Type here to search, File Explorer, Edge browser, Mail, Store, Google Chrome, Word, Excel, Power BI, and File Explorer icons. System tray shows the date (10/23/2018) and time (3:02 AM).

2.)

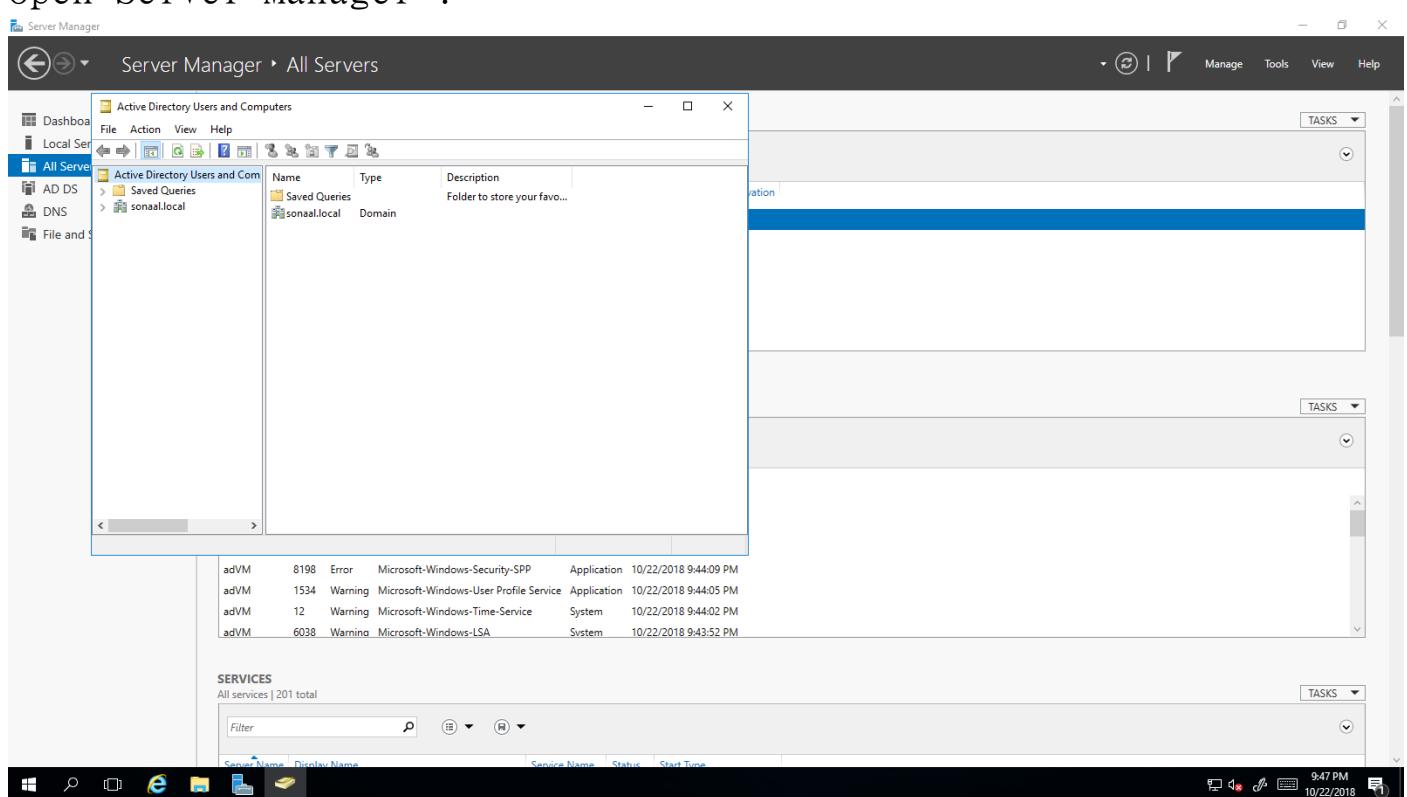
Create 5 User accounts in AD and sync them to Azure AD.
Enable Multifactor Authentication for all users.

Sol.

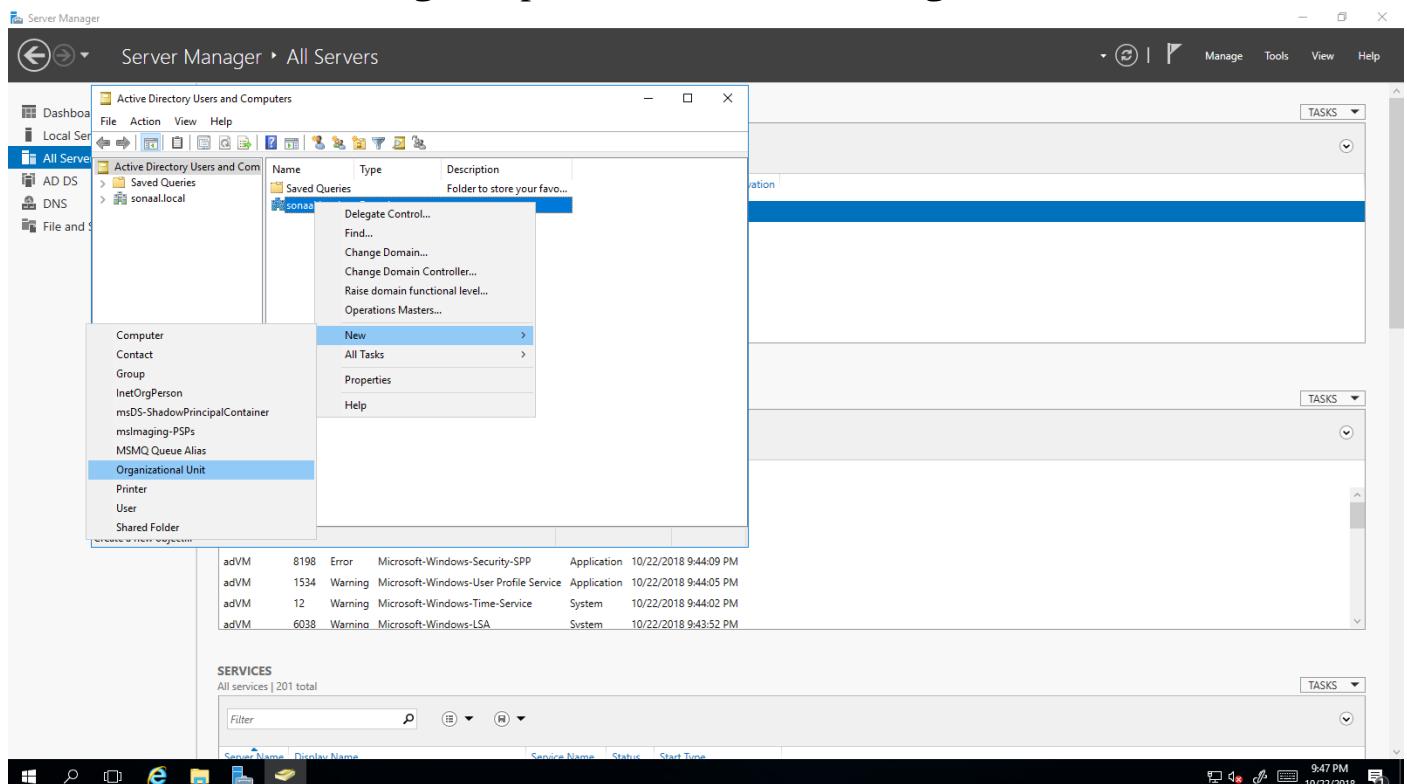
Open the VM created in Question 1 and this will look like :



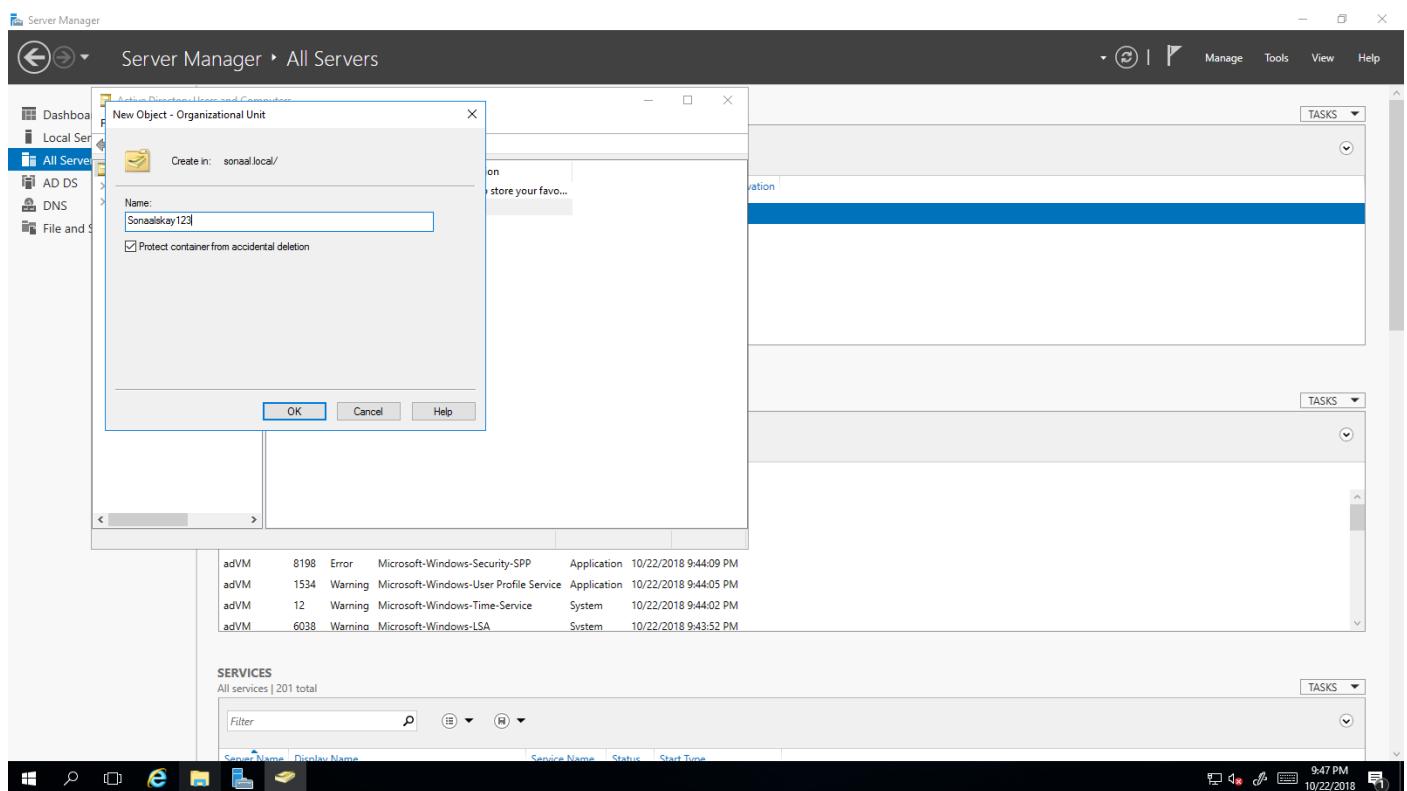
Open Server Manager :



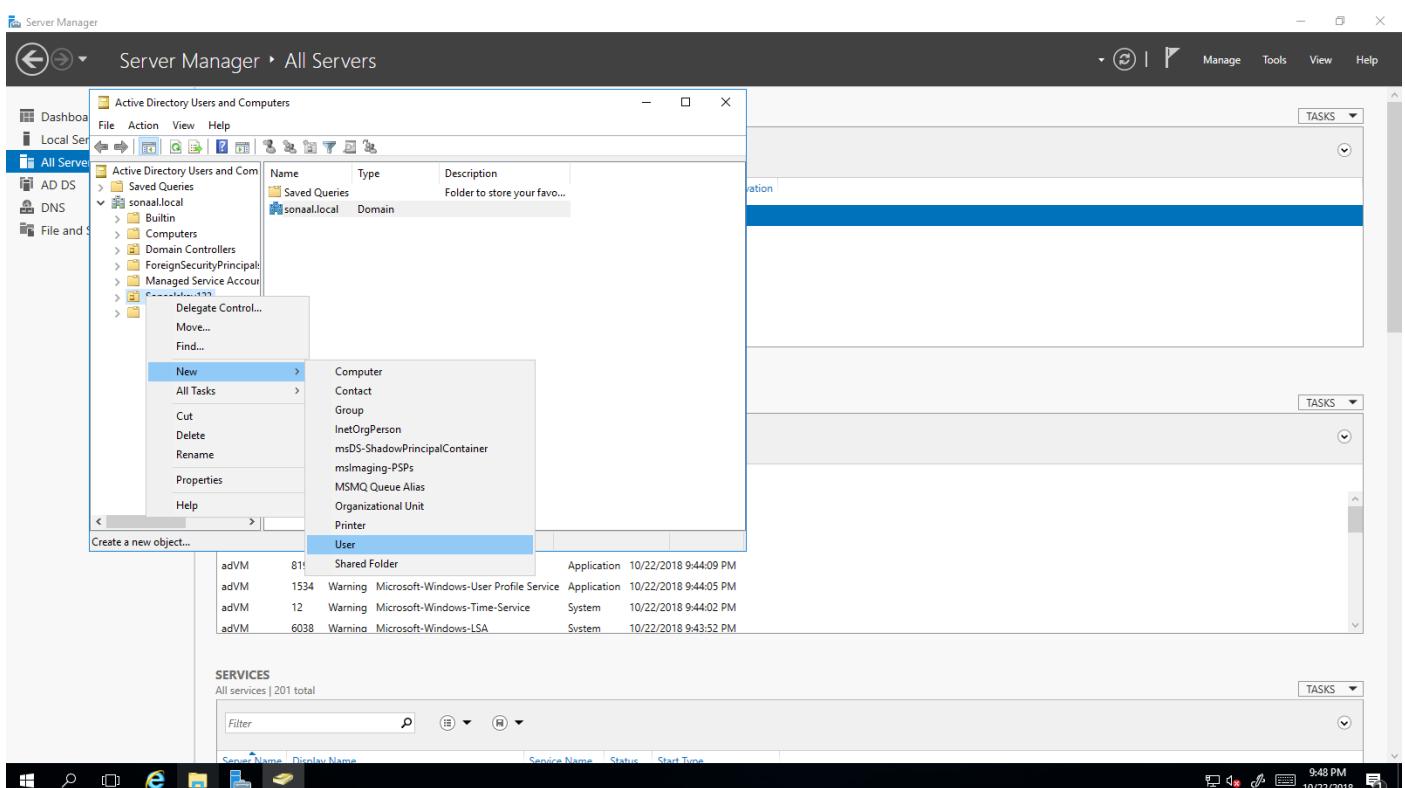
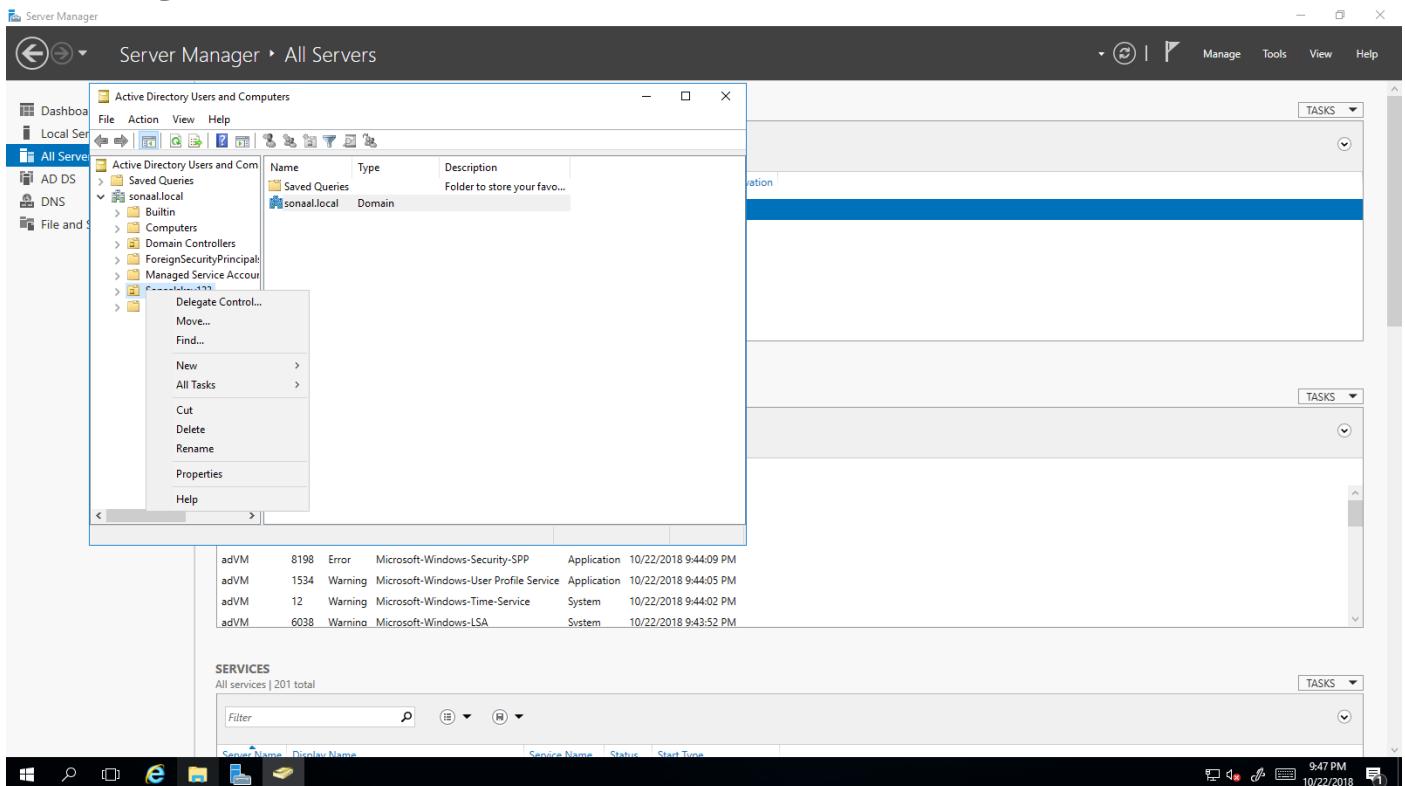
Follow the following steps shown in the images:



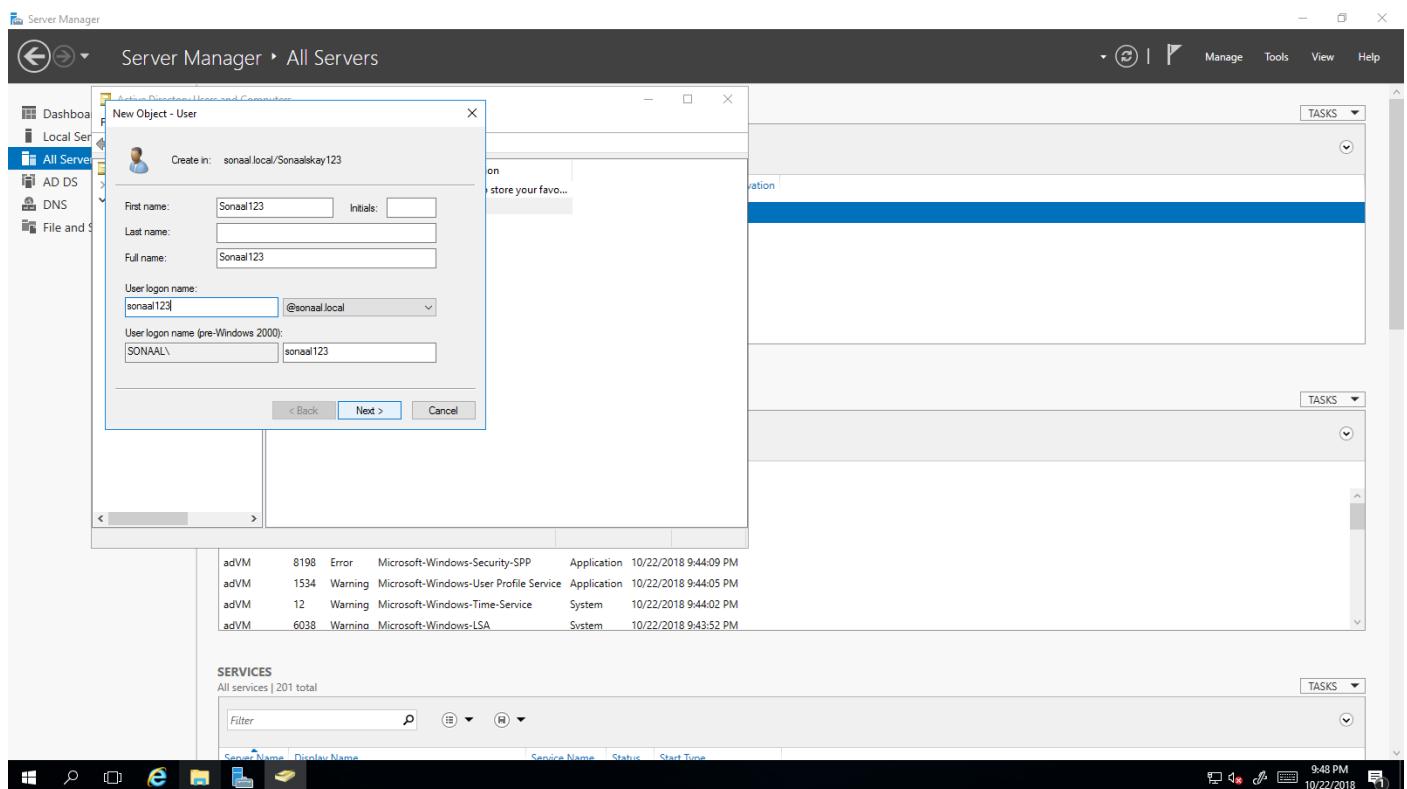
Creating new object :



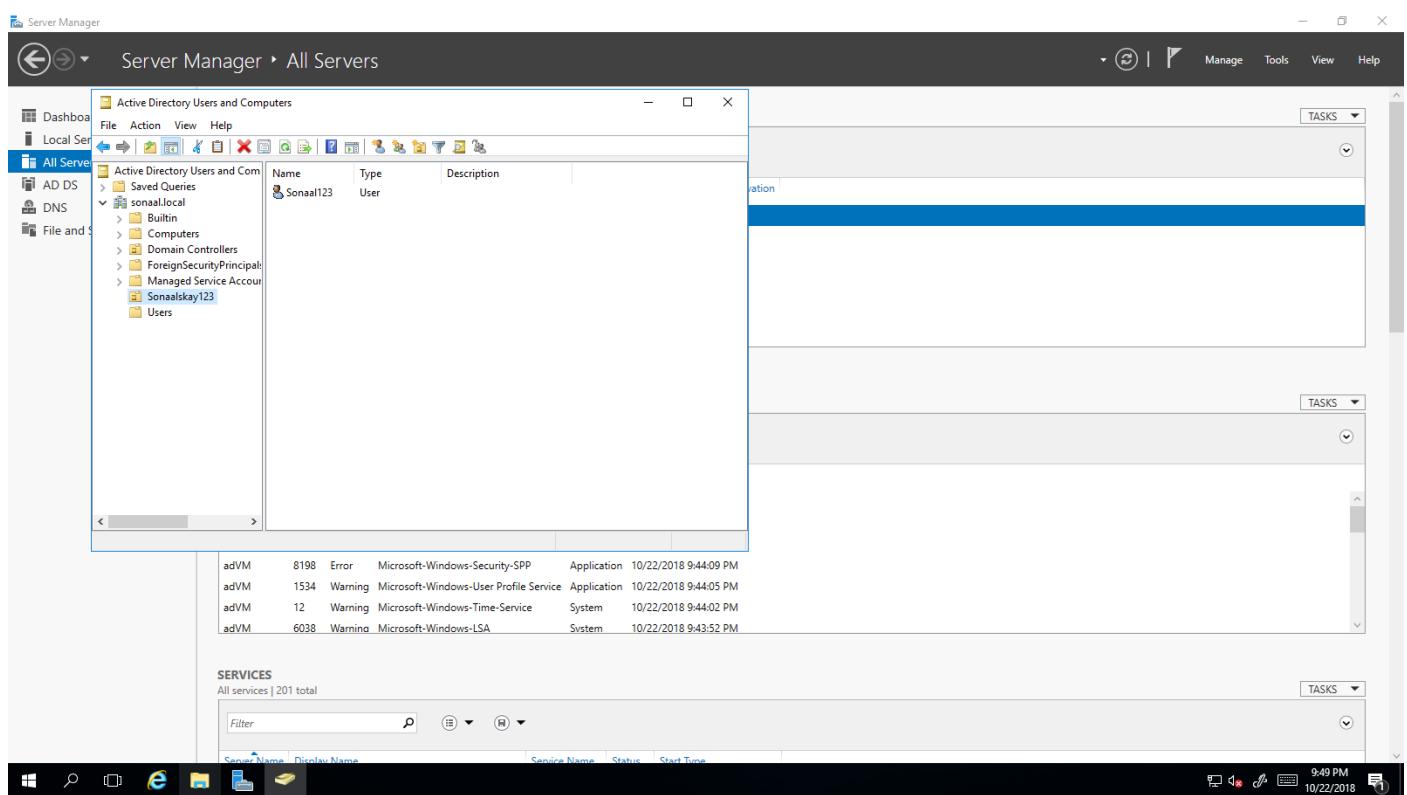
Creating New Users :



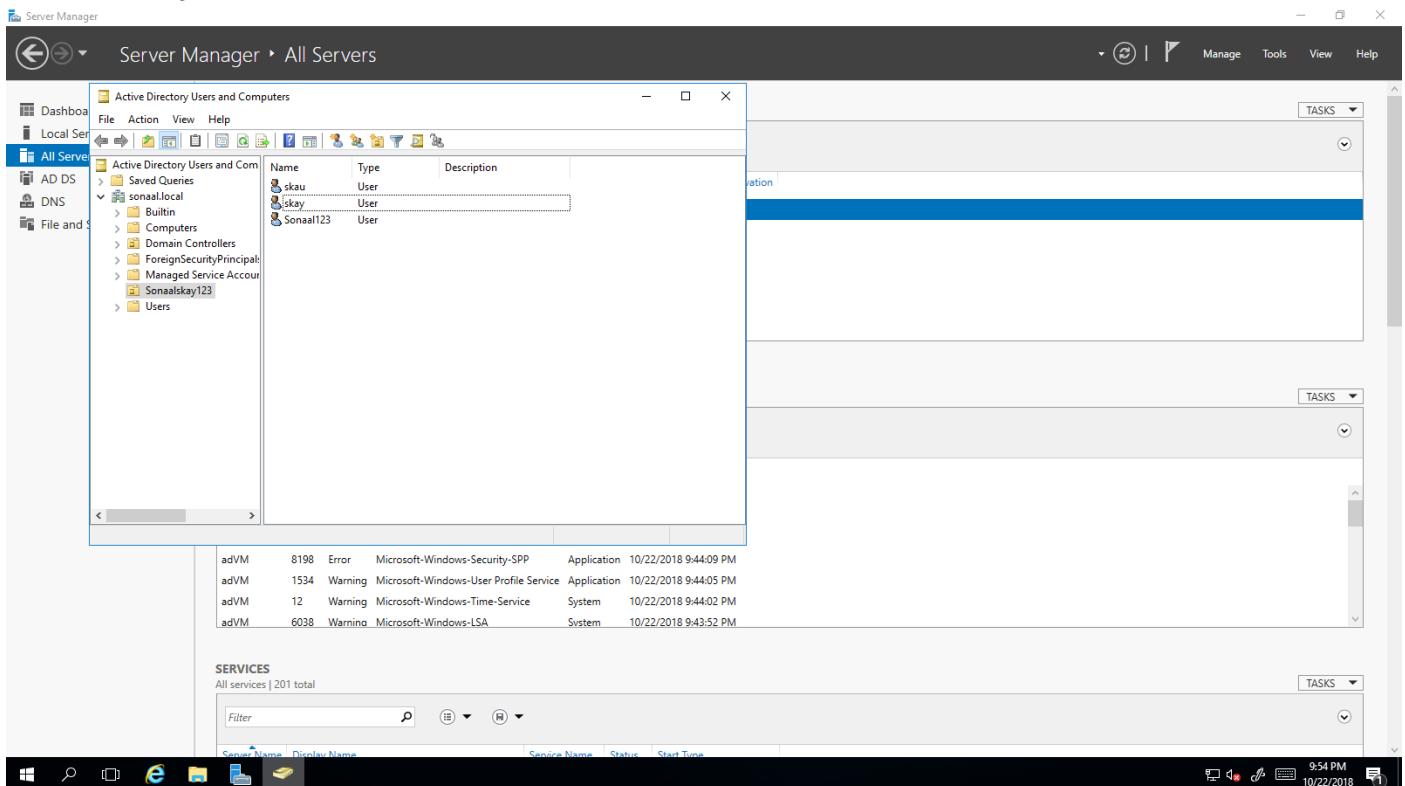
Fill the details:



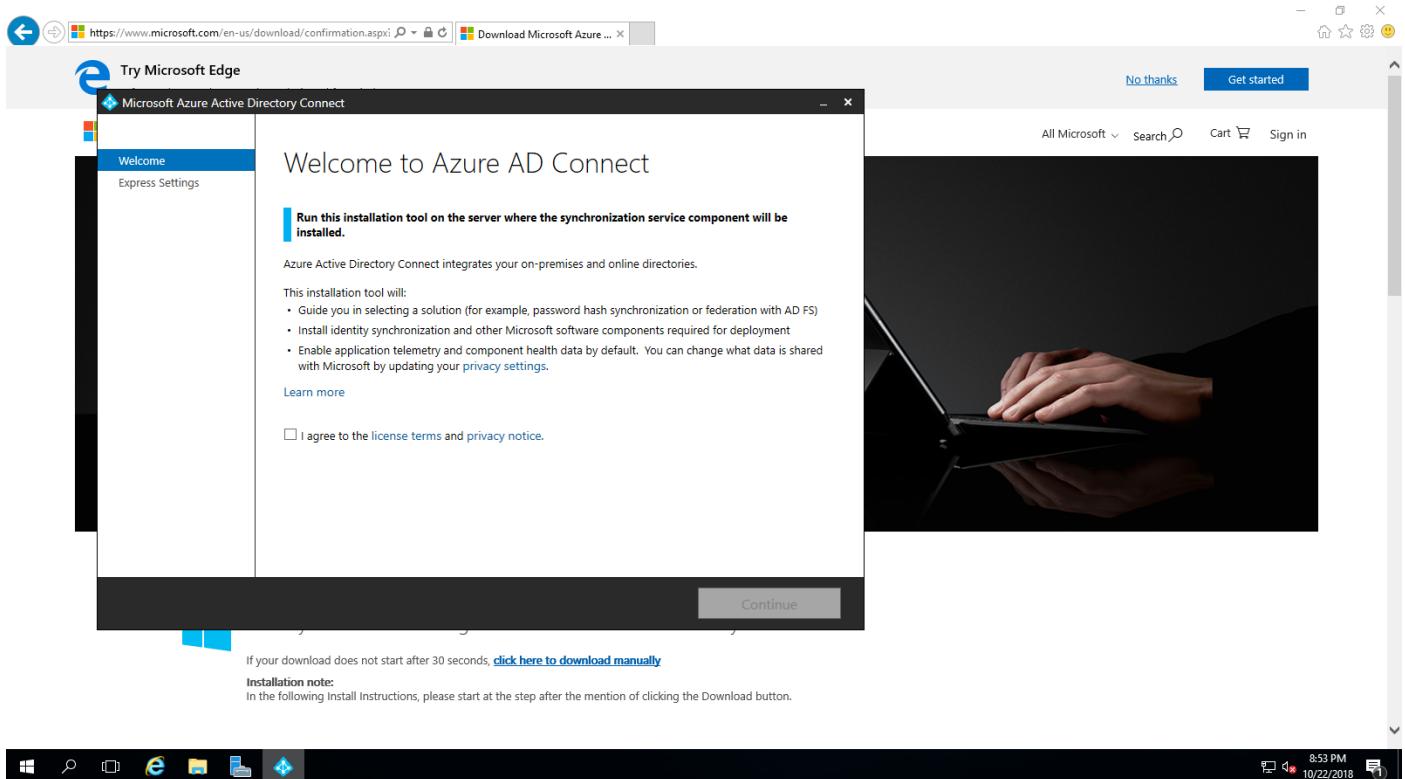
You will see the user created below:



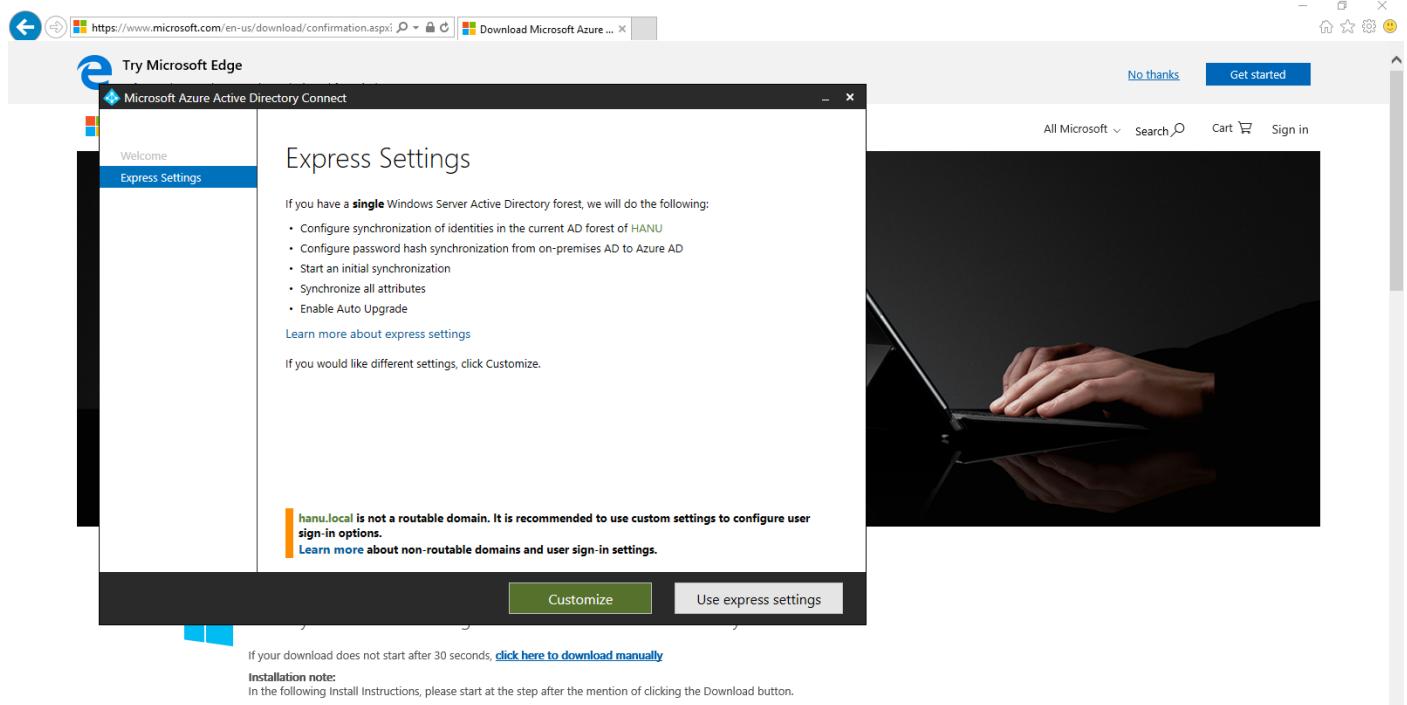
Similarly create 5 users :



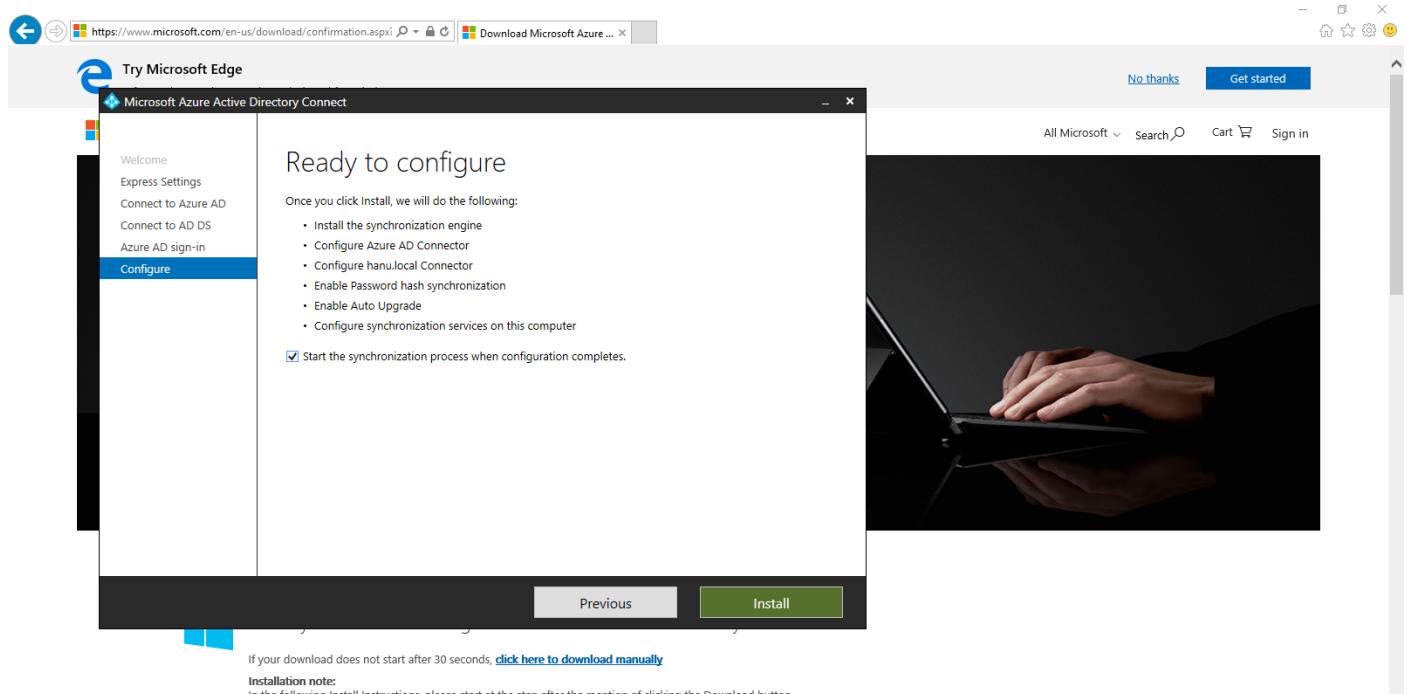
Now we will Connect with Azure AD :

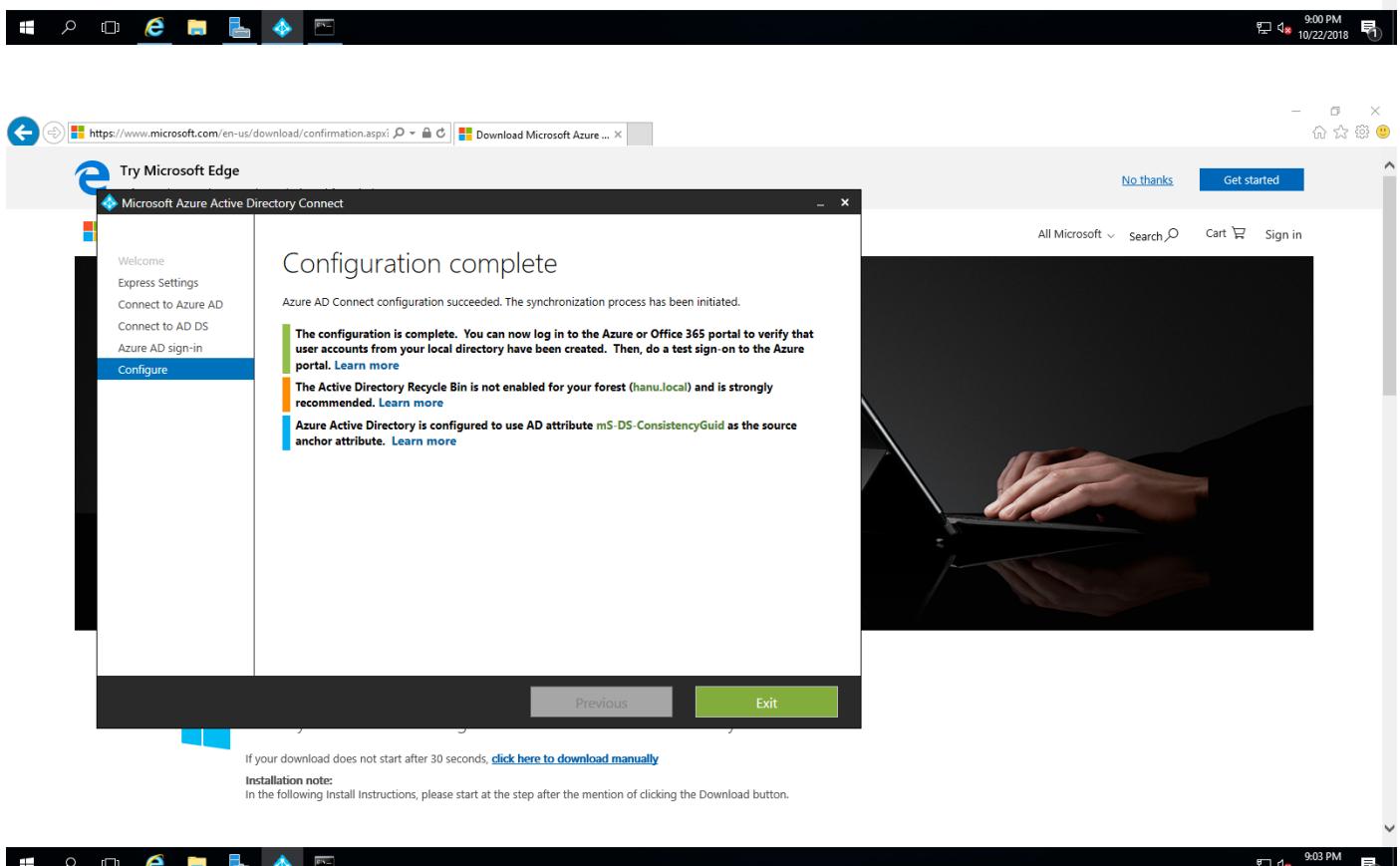
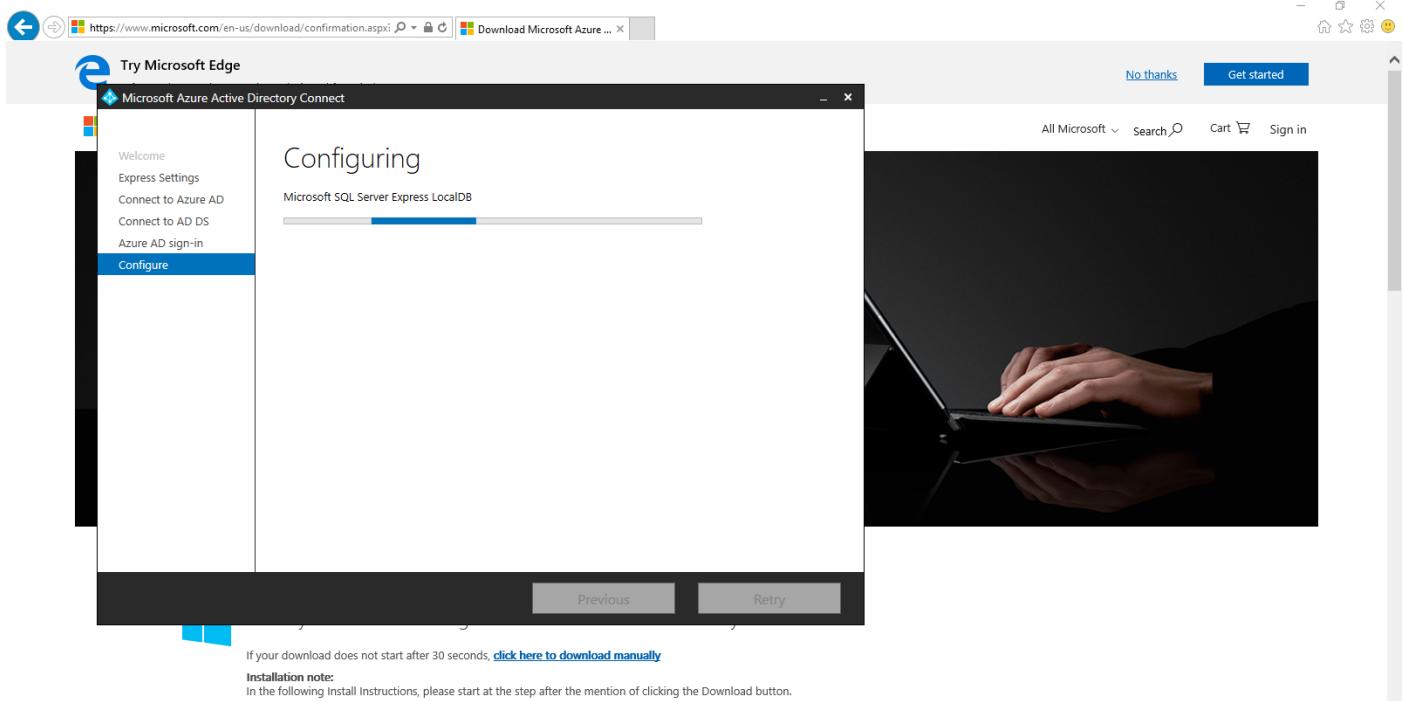


Fill all the desired details:



After fill every details click on Install and wait for completion:





The Users will reflect on AD :

NAME	USER NAME	USER TYPE	SOURCE
akshat	akshat@kalrasonaal15stuupesac.onmicrosoft.com	Member	Azure Active Directory
e27ece3a-a0e2-4326-87d5-609624a	kalrasonaal15@stu.upes.ac.in	Microsoft Account	
On-Premises Directory Synchronizat	Sync_MyVM_a1bf51d23252@kalrasonaal15s...	Member	Windows Server AD
skau	skau@kalrasonaal15stuupesac.onmicrosoft.com	Member	Windows Server AD
skay	skay@kalrasonaal15stuupesac.onmicrosoft.com	Member	Windows Server AD
skay2	skay2@kalrasonaal15stuupesac.onmicrosoft.com	Member	Windows Server AD
skay3	skay3@kalrasonaal15stuupesac.onmicrosoft.com	Member	Windows Server AD
skaysonaal	sonaalskay@kalrasonaal15stuupesac.onmicrosoft.com	Member	Azure Active Directory
sonaal	sonaal@kalrasonaal15stuupesac.onmicrosoft.com	Member	Azure Active Directory

Now we need to enable the Multi-Factor Authentication:

Click on the Button above the users where it is written Multi-Factor Authentication:

DISPLAY NAME	USER NAME	MULTI-FACTOR AUTH STATUS
akshat	akshat@kalrasonaal15stuupesac.onmicrosoft.com	Disabled
e27ece3a-a0e2-4326-87d5-609624a	kalrasonaal15@stu.upes.ac.in	Disabled
On-Premises Directory Synchronizat	Sync_MyVM_a1bf51d23252@kalrasonaal15s...	Disabled
skau	skau@kalrasonaal15stuupesac.onmicrosoft.com	Disabled
skay	skay@kalrasonaal15stuupesac.onmicrosoft.com	Disabled
skay2	skay2@kalrasonaal15stuupesac.onmicrosoft.com	Disabled
skay3	skay3@kalrasonaal15stuupesac.onmicrosoft.com	Disabled
skaysonaal	sonaalskay@kalrasonaal15stuupesac.onmicrosoft.com	Disabled
sonaal	sonaal@kalrasonaal15stuupesac.onmicrosoft.com	Disabled

Now Click on the Enable :

Note: only users licensed to use Microsoft Online Services are eligible for Multi-Factor Authentication. Learn more about how to license other users. Before you begin, take a look at the multi-factor auth deployment guide.

Please read the deployment guide if you haven't already. If your users do not regularly sign in through the browser, you can send them to this link to register for multi-factor auth: <https://aka.ms/MFASetup>

enable multi-factor auth cancel

Enable the Multi-factor Authentication:

Please wait for operation to complete

close

This will enable the Multi-factor Authentication and we are all set.

3) Domain : SQL PAAS (5 Marks)

Database Name : UniversityDB

Table Name : TopStudents

Values and schema must look as follows

Id RollNo FirstName LastName Avg GPA Major

Add 5 rows to this table using visual studio

Sol.

Step1: Creating a Database in Microsoft Azure

NAME	STATUS	REPLICATION ROLE	SERVER	PRICING TIER	LOCATION	SUBSCRIPTION
UniversityDB	Online	None	sonaal	Standard S0: 10 DTUs	East US	Azure for Students

Step 2: Goto Query Editor and Authenticate

Microsoft Azure

Home > SQL databases > UniversityDB - Query editor (preview)

UniversityDB - Query editor (preview)

Welcome to SQL Database Query Editor

Authorization type: SQL server authentication

Login: rootadmin

Password:

OK

OK

Connecting with Visual Studio :

Microsoft Azure

Home > SQL databases > UniversityDB

UniversityDB

Resource utilization (UniversityDB)

1 hour 24 hours 7 days View: Max

DTU percentage (Max) UniversityDB 0%

3 AM 3:15 AM 3:30 AM 3:45 AM

Server name: skay.database:windowsserver

Visual Studio skay.database:windowsserver

Connect with...

Step 3: Connect the Azure Account with Visual studio and Create table and insert rows in it.

The screenshot shows the Microsoft Visual Studio interface. In the center, there is a code editor window titled "SQLQuery1.sql" containing T-SQL code to create a table and insert five rows of data. The table is named "TopStudents" with columns: Id, RollNo, FirstName, LastName, Avg_GCGPA, and Major. The inserted data includes student records with Roll numbers R11 through R15 and various names and majors. Below the code editor, the "Output" window shows three messages indicating successful insertions of one row each. At the bottom of the screen, the Windows taskbar displays the date and time as 10/22/2018 at 12:30 PM.

```

1: Create table TopStudents(
2:     Id Varchar(30),
3:     RollNo Varchar(30),
4:     FirstName Varchar(20),
5:     LastName Varchar(20),
6:     Avg_GCGPA Int,
7:     Major Varchar(30));
8:
9:
10:
11: insert into TopStudents values ('R11','S11','Sonaal','Kalra',7.5,'M1');
12: insert into TopStudents values ('R12','S12','Tushar','Gupta',7.5,'M1');
13: insert into TopStudents values ('R13','S13','Tushar','Dohroo',7.5,'M1');
14: insert into TopStudents values ('R14','S14','Kilak','Kumar',7.5,'M1');
15: insert into TopStudents values ('R15','S15','Akshat','Gupta',7.5,'M1');

(1 row(s) affected)

(1 row(s) affected)

(1 row(s) affected)

```

Step 4: Now check if the Database is updated or not using Microsoft Azure Database Query Editor by running the following query:

The screenshot shows the Microsoft Azure portal interface. On the left, the navigation menu lists various services like All services, Dashboard, Resource groups, App Services, Function Apps, SQL databases, and more. The main content area is titled "UniversityDB - Query editor (preview)" and shows a query editor window. The query "select * from TopStudents" has been run, and the results are displayed in a table. The table contains five rows of data, matching the insertions made in Visual Studio. The bottom status bar indicates the query succeeded 3 seconds ago.

R11	S11	Sonaal	Kalra	
R12	S12	Tushar	Gupta	
R13	S13	Tushar	Dohroo	
R14	S14	Kilak	Kumar	
R15	S15	Akshat	Gupta	

4.) Create a sample website that logs user in with external identities (like google , facebook, Azure AD or Hotmail) . The website code is present in github and app services pulls code from github Changes done in Github will be synced to Webapp.

The web page presents a form to the user to submit the following information.

- RollNo :
- FirstName :
- LastName
- GPA
- Major

- ✓ The data is inserted to the database created (from Q3).
- ✓ User can also query the information with a separate html page called /query.html or a hyperlink on the same page.
- ✓ This page will have a field for roll No To fetch information from the DB.
- ✓ Draw a diagram of this architecture once the implementation is complete.

Sol.

Step1:Create an app service as follows:

The screenshot shows the Microsoft Azure portal interface. On the left, the navigation bar includes 'Create a resource', 'All services', and 'FAVORITES' which lists 'Dashboard', 'All resources', 'Resource groups', 'App Services', 'Function Apps', 'SQL databases', 'Azure Cosmos DB', 'Virtual machines', 'Load balancers', 'Storage accounts', 'Virtual networks', 'Azure Active Directory', 'Monitor', 'Advisor', 'Security Center', 'Cost Management + Billing', and 'Help + support'. The main content area is titled 'Web' and shows a search bar with 'kubernetes'. Below it, there's a 'Web Apps' section with icons for 'Web App' (Microsoft), 'Web App + SQL' (Microsoft), 'App Service Environment' (Microsoft), 'WordPress on Linux' (WordPress), 'Sitecore® Experience Cloud' (Sitecore), and 'Function App' (Microsoft). There are also sections for 'Blogs + CMSs' (Joomla, Orchard CMS, MonoX, Drupal on Linux Web App with Drupal, Wordpress LEMP7 Max Performance, LAMP Certified by Bitnami) and 'Starter web apps' (Joomla, .NET Foundation, Mono Software, Drupal, Jetware). A right sidebar titled 'Web App Microsoft' provides a brief overview of Azure Web Apps. At the bottom, there's a 'Create' button.

Step2:Fill the desired details and then click create:

The screenshot shows the 'Create Web App' form in the Microsoft Azure portal. The form fields include: 'App name' (set to 'Inter a name for your App'), 'Subscription' (set to 'Azure for Students'), 'Resource Group' (radio buttons for 'Create new' and 'Use existing'), 'OS' (radio buttons for 'Windows' and 'Linux', with 'Windows' selected), 'Publish' (radio buttons for 'Code' and 'Docker Image', with 'Code' selected), 'App Service plan/Location' (set to 'newplan(East US)'), and 'Application Insights' (radio buttons for 'On' and 'Off', with 'On' selected). At the bottom, there are 'Create' and 'Automation options' buttons. The status bar at the bottom indicates 'Editing hello_azure...html' and 'azur...zip'.

Step3: After the creation follow the following steps:

The screenshot shows the Microsoft Azure portal's App Services blade. A search bar at the top has 'kubernetes' typed into it. Below the search bar, there's a table titled 'App Services' with one item listed: 'Skay-Hanu'. The table includes columns for NAME, STATUS, APP TYPE, APP SERVICE PLAN, LOCATION, and SUBSCRIPTION. The 'Skay-Hanu' entry is highlighted. The left sidebar lists various Azure services like App Services, Function Apps, and Storage accounts.

Go to Deployment Centre and choose Github:

The screenshot shows the Microsoft Azure portal's Skay-Hanu - Deployment Center blade. The left sidebar has 'Deployment' selected. On the right, there's a diagram with three circles numbered 1, 2, and 3. Below the diagram are four boxes: 'VSTS' (Configure continuous integration with a VSTS repo.), 'Github' (Configure continuous integration with a GitHub repo., highlighted), 'Bitbucket' (Configure continuous integration with a Bitbucket repo.), and 'Local Git' (Deploy from a local Git repo.).

Dashboard - Microsoft Azure Assignment II - Google Drive + https://portal.azure.com/#@ffdadb7e-976d-4350-b84e-97f5b8bf1a38/resource/subscriptions/779a9eb5-61c1-4572-8af3-e1a6667de9a8/resourceGroups/HanuRG/providers/Microsoft.Web/sites/Skay-Hanu/vsts...

Microsoft Azure

Skay-Hanu - Deployment Center

App Service kubernetes

SOURCE CONTROL **BUILD PROVIDER** **CONFIGURE** **SUMMARY**

Deployment Center

App Service Deployment Center enables you to choose the location of your code as well as options for build and deployment to the cloud. [Learn more](#)

App Service Kudu build server

Use App Service as the build server. The App Service Kudu engine will automatically build your code during deployment when applicable with no additional configuration required.

Back **Continue**

Editing hello_azure.html ^ azure-quickstart-te...zip ^

Type here to search

4:35 PM 10/22/2018

Dashboard - Microsoft Azure Assignment II - Google Drive + https://portal.azure.com/#@ffdadb7e-976d-4350-b84e-97f5b8bf1a38/resource/subscriptions/779a9eb5-61c1-4572-8af3-e1a6667de9a8/resourceGroups/HanuRG/providers/Microsoft.Web/sites/Skay-Hanu/vsts...

Microsoft Azure

Skay-Hanu - Deployment Center

App Service kubernetes

SOURCE CONTROL **BUILD PROVIDER** **CONFIGURE** **SUMMARY**

Code

Organization: [dropdown]

Repository: [dropdown]

Branch: [dropdown]

Back **Continue**

Editing hello_azure.html ^ azure-quickstart-te...zip ^

Type here to search

4:35 PM 10/22/2018

The screenshot shows the Microsoft Azure Deployment Center interface. On the left, a sidebar lists various Azure services. The main area is titled "Skay-Hanu - Deployment Center". A progress bar at the top indicates "3 of 4" steps completed. The "Code" section is currently selected, showing settings for "Organization" (Sonaalk), "Repository" (hello), and "Branch" (master). Buttons for "Back" and "Continue" are visible at the bottom.

This screenshot shows the Microsoft Azure Deployment Center after step 4 has been completed. The progress bar now shows "4 of 4" steps completed. The "SOURCE CONTROL" and "BUILD PROVIDER" sections are displayed, showing the repository details and build provider respectively. Buttons for "Back" and "Finish" are visible at the bottom.

Step 4: After completion of above steps upload the respective files on github.

The link is here:

<https://github.com/Sonaalk/hello/blob/master/index.php>

Step 5: Mine Registration of user page looks like this:

The screenshot shows a browser window with multiple tabs open at the top. The active tab is titled "Registration Page". The main content is a form titled "Register" with the following fields:

- Id: An input field.
- Rollno: An input field.
- Firstname: An input field.
- Lastname: An input field.
- Avg_Cgpa: An input field.
- Major: An input field.

A "Register" button is located at the bottom right of the form area.

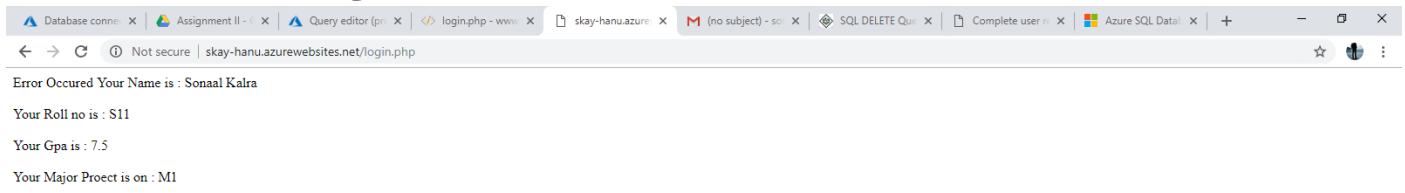
After entering the details click Login

The screenshot shows a browser window with multiple tabs open at the top. The active tab is titled "Sonaalk/hello". The main content is a form titled "User Query" with the following field:

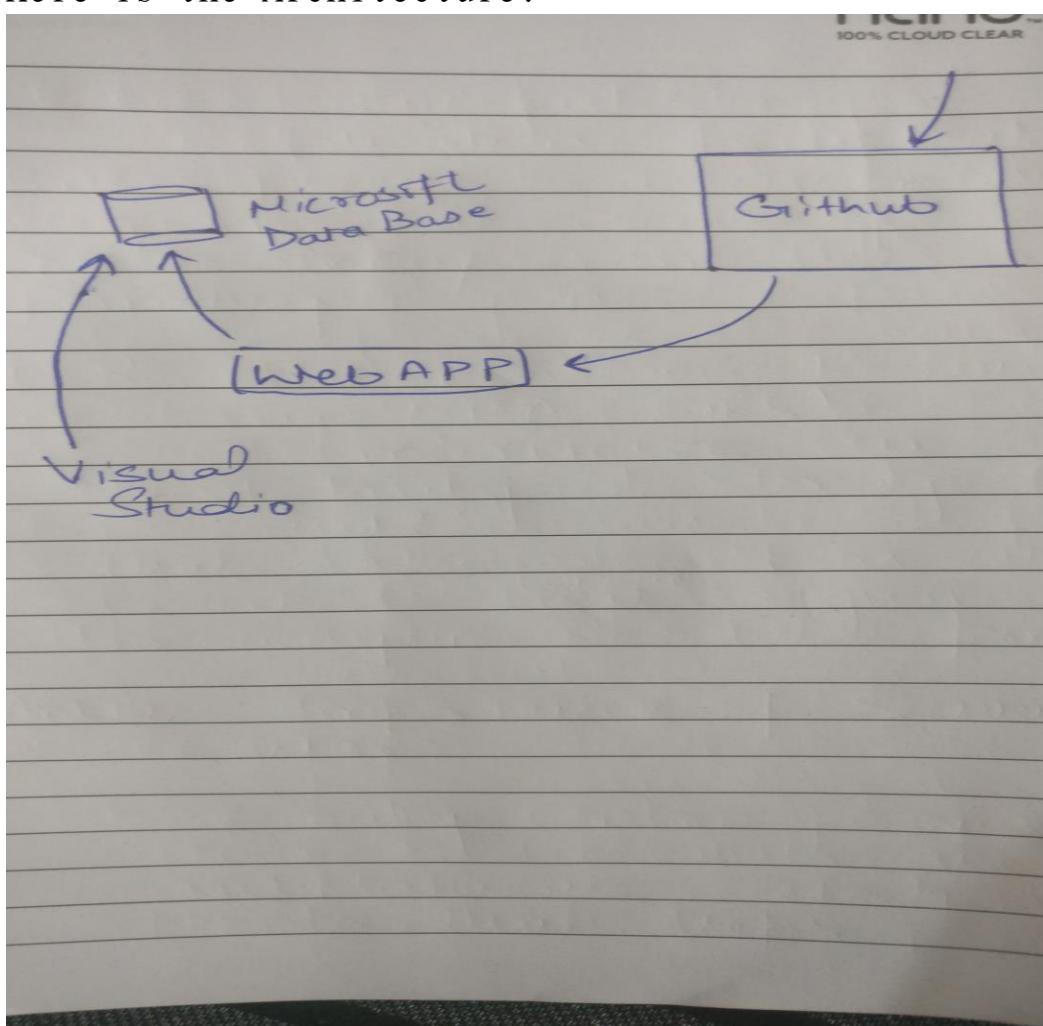
- Enter the Roll NO.: An input field.

A "Login" button is located at the bottom right of the form area.

And the final Page looks like this:



Here is the Architecture:-



5.) Clone web app (built in Q 4) and test the database CRUD operations on cloned website.

- ✓ Create a secondary read copy of the database in a different region.
- ✓ Connect traffic manager and connect the two webapps to the TM
- ✓ Failover the database to secondary and ensure the web app is unaffected and CRUD operations continue the web page.

Sol.

Step1: Here We need to Clone the App we created above and we need to do the following steps by selecting Clone App in App Service Options:

The screenshot shows the Microsoft Azure portal interface. The user is in the 'Clone App' creation wizard under 'App Services'. The 'Create' tab is selected. The 'App name' field contains 'Hnuapp'. The 'Resource Group' dropdown shows 'Create new' selected with 'Hnuapp' chosen. The 'App Service plan/Location' dropdown shows 'ServicePlande556686-8723(Central US)'. The 'Clone Settings' and 'Application Insights' sections are visible below. At the bottom, there are 'Create' and 'Automation options' buttons. The browser's address bar shows the URL: https://portal.azure.com/#create/Microsoft.CloneApp. The taskbar at the bottom shows various open tabs and windows, including a file named 'azure-quickstart-te...zip'.

Now After the App Get Cloned this will look like :

The screenshot shows the Microsoft Azure App Services dashboard. On the left, there's a navigation menu with options like 'Create a resource', 'All services', and 'Resource groups'. The main area displays 'App Services' under 'Subscriptions: Azure for Students'. There are two items listed: 'Skay-Hanu' (Running, Web app, ServicePlanId:556686-8723, Central US) and 'sonaal' (Running, Web app, serve, Central India). The bottom of the screen shows a Windows taskbar with various pinned icons.

Step2: Now we need to create copy of database in different region:

The screenshot shows the Microsoft Azure SQL databases - Geo-Replication settings for the 'UniversityDB' database. The left sidebar has a 'Geo-Replication' section selected. The main pane shows a map where regions like West US, Central US, and South Central US are highlighted. Below the map, the 'PRIMARY' section shows 'sonaal/UniversityDB' in 'East US'. The 'SECONDARIES' section shows 'skay/UniversityDB' in 'West US', which is currently 'Initializing...'. The 'TARGET REGIONS' section lists several regions: West US, West US 2, Central US, West Central US, and South Central US. The bottom of the screen shows a Windows taskbar.

And now select the location where you want copy of the database:

The screenshot shows the Microsoft Azure portal interface. On the left, there is a sidebar with various service icons. The main area displays a 'Create secondary' dialog for a 'UniversityDB - Geo-Replication' setup. The 'Server' tab is active, showing fields for 'Server name' (input field), 'Server admin login' (input field), 'Password' (input field), 'Confirm password' (input field), and 'Location' (dropdown set to 'West US'). A checkbox 'Allow Azure services to access server' is checked. At the bottom, there is an 'OK' button and a 'Select' button.

Once Completed the two database will be like:

The screenshot shows the Microsoft Azure portal interface. The left sidebar includes the 'SQL databases' icon. The main area displays the 'SQL databases' blade for the 'sonaal@kalrasonal1... (Default Directory)' resource group. It lists two databases: 'UniversityDB' (Status: Online, Replication Role: Secondary, Server: skay) and 'UniversityDB' (Status: Online, Replication Role: Primary, Server: sonaal). The blade also includes sections for 'Subscriptions' (Azure for Students) and 'Assign tags'.

Step 3: Now We need to create Traffic Manager :

The screenshot shows the Microsoft Azure portal interface. On the left, there's a sidebar with various service icons like App Services, Function Apps, and Storage accounts. The main area is titled 'Create Traffic Manager profile' under 'Traffic Manager profiles'. A sub-menu bar at the top of the main area includes 'Home', 'Traffic Manager profiles', and 'Create Traffic Manager profile'. The main form has fields for 'Name' (set to 'traffskay'), 'Routing method' (set to 'Performance'), 'Subscription' (set to 'Azure for Students'), 'Resource group' (set to 'Select existing...'), and 'Resource group location' (set to 'West US'). At the bottom right of the form are 'Create' and 'Automation options' buttons.

Now after creating the Traffic Manager create the end points:

This screenshot shows the 'Add endpoint' dialog box within the Azure portal. The sidebar on the left is identical to the previous screenshot. The main dialog has a title 'Add endpoint' under 'traffskay - Endpoints'. It contains fields for 'Type' (set to 'Azure endpoint'), 'Name' (empty), 'Target resource type' (set to 'Cloud service'), and 'Target resource' (with a link to 'Choose a cloud service'). There are also fields for 'Priority' (set to 3) and 'Custom Header settings' (empty). A checkbox for 'Add as disabled' is present but unchecked. At the bottom right of the dialog is an 'OK' button.

Microsoft Azure

Endpoints - Microsoft Azure | Geo-Replication - Microsoft Azure | Assignment II - Google Drive | (no subject) - sonaalkral1@gmail.com | +

<https://portal.azure.com/#@ffdadb7e-976d-4350-b84e-97f5b8bf1a38/resource/subscriptions/779a9eb5-61c1-4572-8af3-e1a6667de9a8/resourceGroups/HanuRG/providers/Microsoft.Network/trafficmanagerprofiles/traffskay>

Microsoft Azure Home > Traffic Manager profiles > traffskay - Endpoints

traffskay - Endpoints

+ Add Edit columns More

Search by name...

NAME STATUS MONITOR STATUS TYPE PRIORITY

centralus	Enabled	Online	Azure endpoint	1
CentralIndia	Enabled	Checking endpoint	Azure endpoint	2

Overview Activity log Access control (IAM) Tags Diagnose and solve problems

Settings Configuration Real user measurements Traffic view Endpoints Properties Locks Automation script

Monitoring Alerts Metrics

Support + troubleshooting Resource health New support request

Type here to search

2:16 AM 10/23/2018

Step 4: Now go to database and go to geo-Replication and choose the option forced failover:

Dashboard - Microsoft Azure | Geo-Replication - Microsoft Azure | Assignment II - Google Drive | (no subject) - sonaalkral1@gmail.com | +

<https://portal.azure.com/#@kalrasonaal15stuupesac.onmicrosoft.com/resource/subscriptions/779a9eb5-61c1-4572-8af3-e1a6667de9a8/resourceGroups/HanuRG/providers/Microsoft.Sql/servers/sonaal/databases/U...>

Microsoft Azure Home > UniversityDB - Geo-Replication

UniversityDB - Geo-Replication

Search resources, services, and docs

Select a region on the map or from the Target Regions list to create a secondary database.

Configure Geo-Replication Connection strings Sync to other databases Add Azure Search Properties Locks Automation script

Primary SERVER/DATABASE FAILOVER POLICY STATUS

West US	skay/UniversityDB	None	Online
---------	-------------------	------	--------

Secondaries SERVER/DATABASE FAILOVER POLICY STATUS

East US	sonaal/UniversityDB	None	Online
---------	---------------------	------	--------

Target Regions

- West US
- West US 2
- Central US

Pin to dashboard Forced Failover Stop Replication

Type here to search

2:19 AM 10/23/2018

Now go to clone App and open Click on the URL:

The screenshot shows the Microsoft Azure portal interface. On the left, the navigation menu is open, showing various services like App Services, Functions, and Storage. The main content area is titled 'sonaal' under 'App Service'. The 'Overview' tab is selected. Key details shown include:

- Resource group: sonaal123
- Status: Running
- Location: Central India
- Subscription: Azure for Students
- Deployment ID: 779a9eb5-61c1-4572-8af3-e1a6667de9a8
- Tags: Click here to add tags

On the right, there are three cards:

- Diagnose and solve problems:** Our self-service diagnostic and troubleshooting experience helps you identify and resolve issues with your web app.
- Application Insights:** Application Insights helps you detect and diagnose quality issues in your apps, and helps you understand what your users actually do with it.
- App Service Advisor:** App Service Advisor provides insights for improving app experience on the App Service platform. Recommendations are sorted by freshness, priority, and impact to your app.

At the bottom, there are two charts: 'Http 5xx' and 'Data In'.

Now Fill the details and we will see that the Information we just entered will reflect on the database or not:

The screenshot shows a web browser window with the URL <https://sonaal.azurewebsites.net>. The page displays a registration form titled 'Register'.

The form fields are:

- Id
- Rollno
- Firstname
- Lastname
- Avg_Cgpa
- Major

At the bottom of the form is a green 'Register' button.

Register

Id	5
Rollno	5
Firstname	5
Lastname	5
Avg_Cgpa	5
Major	5
<input type="button" value="Register"/>	

Now Open the database and see if the details are entered in the database:

Microsoft Azure

UniversityDB - Query editor (preview)

```
Query 1
Run Cancel query
1 SELECT * FROM TopStudents
```

Results

6	6	6	6
5	5	5	5
7	7	7	7
9	9	9	9
3	3	3	3
5	5	5	5

Query succeeded | 4s

And here it is .

6.)

Using Azure Kubernetes services, build a web application using one of the public images available in docker public repositories.

<https://hub.docker.com/explore/>

Sol. Follow the following steps while updating the details:

Step 1: Create Kubernetes Cluster:

The screenshot shows the Microsoft Azure portal interface. The left sidebar contains a navigation menu with various service icons. The main content area is titled 'Create Kubernetes cluster' under 'Kubernetes services'. The 'Basics' tab is selected. The 'PROJECT DETAILS' section includes fields for 'Subscription' (set to 'Azure for Students'), 'Resource group' (set to 'HariRG'), and 'Cluster name' (set to 'kubskay'). The 'CLUSTER DETAILS' section includes fields for 'Region' (set to 'Central US'), 'Kubernetes version' (set to '1.11.3'), and 'DNS name prefix' (set to 'dns'). At the bottom, there are 'Review + create' and 'Next : Authentication >' buttons. The browser's address bar shows the URL <https://portal.azure.com/#create/microsoft.aks>. The taskbar at the bottom shows several open windows, including a file named 'azure-quickstart-te...zip'.

Step 2: Fill up all the details before the validation is done:

The screenshot shows the Microsoft Azure portal interface. The left sidebar is titled 'Microsoft Azure' and includes sections for 'Create a resource', 'All services', and 'FAVORITES' (Dashboard, All resources, Resource groups, App Services, Function Apps, SQL databases, Azure Cosmos DB, Virtual machines, Load balancers, Storage accounts, Virtual networks, Azure Active Directory, Monitor, Advisor, Security Center, Cost Management + Billing, Help + support). The main content area is titled 'Create Kubernetes cluster' and is on the 'Authentication' tab. It contains fields for 'Service principal' (with '(new) default service principal' selected), 'Enable RBAC' (set to 'No'), and 'Kubernetes authentication and authorization' (with 'Yes' selected). Below these are 'Review + create', 'Previous', and 'Next : Networking >' buttons. The taskbar at the bottom shows a file named 'Editing hello_azur....html' and a download progress bar for 'azure-quickstart-te....zip'.

This screenshot shows the 'Networking' step of the 'Create Kubernetes cluster' wizard. The 'Networking' tab is selected. It provides information about networking options: 'Basic' networking creates a new VNet for your cluster using default values, while 'Advanced' networking allows clusters to use a new or existing VNet with customizable addresses. Application pods are connected directly to the VNet, which allows for native integration with VNet features. A link to 'Learn more about networking in Azure Kubernetes Service' is provided. The 'HTTP application routing' field is set to 'Yes'. The 'Network configuration' field has 'Basic' selected. Navigation buttons at the bottom include 'Review + create', 'Previous', and 'Next : Monitoring >'. The taskbar at the bottom shows a file named 'Editing hello_azur....html' and a download progress bar for 'azure-quickstart-te....zip'.

Create Kubernetes cluster - Microsoft Azure | register.php - wwwroot - App Service | Assignment II - Google Drive | Sonaalk/hello | +

https://portal.azure.com/#create/microsoft.aks

Microsoft Azure

Home > Kubernetes services > Create Kubernetes cluster

Create Kubernetes cluster

Basics Authentication Networking Monitoring Tags Review + create

With Azure Kubernetes Service, you will get CPU and memory usage metrics for each node. In addition, you can enable container monitoring capabilities and get insights into the performance and health of your entire Kubernetes cluster. You will be billed based on the amount of data ingested and your data retention settings.

Learn more about container performance and health monitoring
Learn more about pricing

AZURE MONITOR

Enable container monitoring

Log Analytics workspace (new) DefaultWorkspace-779a9eb5-61c1-4572-8af3-e1a6667de9a8-EUS

Review + create Previous Next : Tags >

Editing hello_azure.html ^ azure-quickstart-te...zip Canceled Show all X

4:50 PM 10/22/2018

Create Kubernetes cluster - Microsoft Azure | register.php - wwwroot - App Service | Assignment II - Google Drive | Sonaalk/hello | +

https://portal.azure.com/#create/microsoft.aks

Microsoft Azure

Home > Kubernetes services > Create Kubernetes cluster

Create Kubernetes cluster

Basics Authentication Networking Monitoring Tags Review + create

Tags are name/value pairs that enable you to categorize resources and view consolidated billing by applying the same tag to multiple resources and resource groups. [Learn more](#)

Note that if you create tags and then change resource settings on other tabs, your tags will be automatically updated.

KEY	VALUE
<input type="text"/>	<input type="text"/>

Review + create Previous Next : Review + create >

Editing hello_azure.html ^ azure-quickstart-te...zip Canceled Show all X

4:50 PM 10/22/2018

Windows Type here to search 4:50 PM 10/22/2018

Create Kubernetes cluster

Basics

Subscription: Azure for Students
Resource group: HanuRG
Region: Central US
Kubernetes cluster name: kubskay
Kubernetes version: 1.11.3
DNS name prefix: dns
Node count: 1
Node size: Standard_DS2_v2

Authentication

Enable RBAC: No

Networking

HTTP application routing: Yes
Network configuration: Basic

Monitoring

Enable container monitoring: Yes
Log Analytics workspace: (new) DefaultWorkspace-779a9eb5-61c1-4572-8af3-e1a6667de9a8-EUS

Create **Previous** **Next** Download a template for automation

Validation passed

Basics

Subscription: Azure for Students
Resource group: HanuRG
Region: Central US
Kubernetes cluster name: kubskay
Kubernetes version: 1.11.3
DNS name prefix: dns
Node count: 1
Node size: Standard_DS2_v2

Authentication

Enable RBAC: No

Networking

HTTP application routing: Yes
Network configuration: Basic

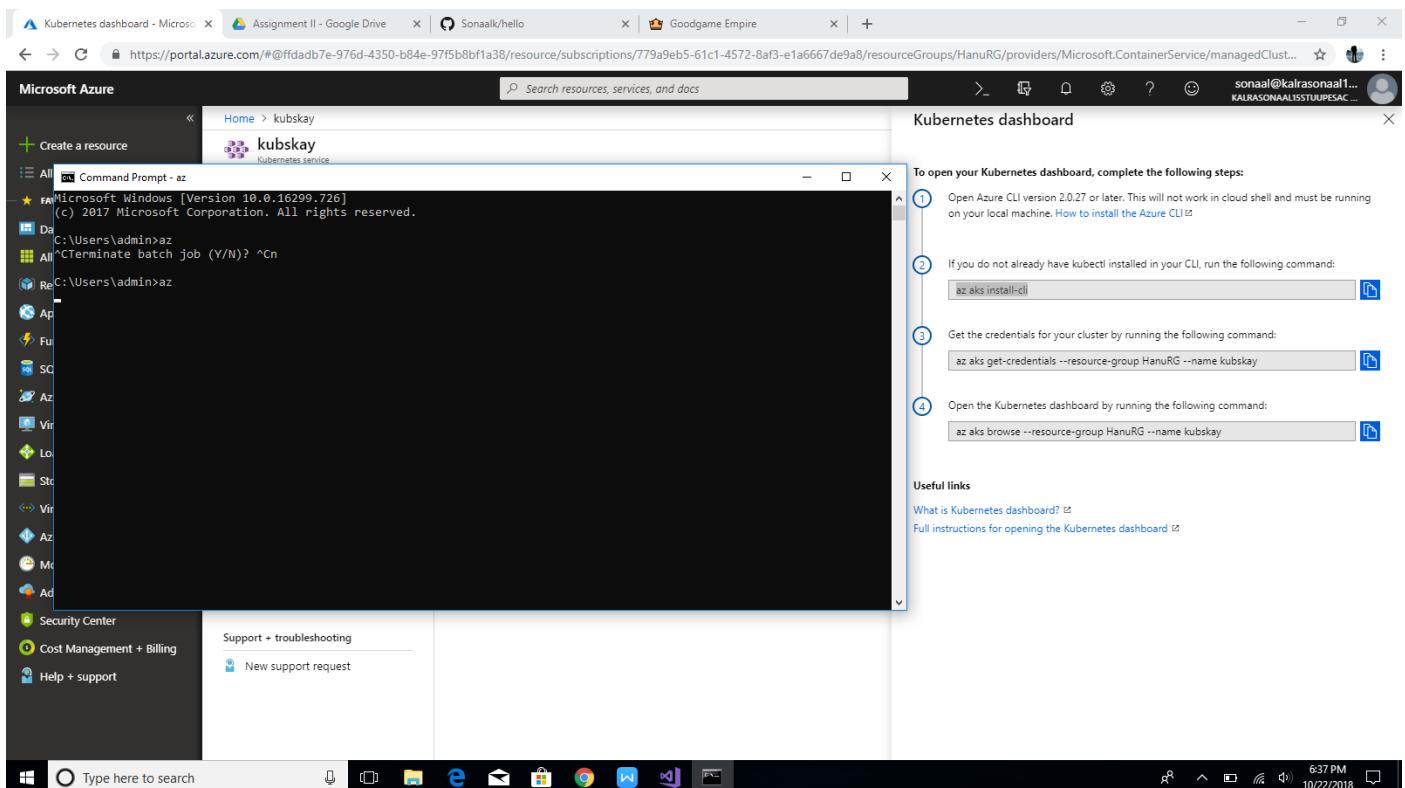
Monitoring

Enable container monitoring: Yes
Log Analytics workspace: (new) DefaultWorkspace-779a9eb5-61c1-4572-8af3-e1a6667de9a8-EUS

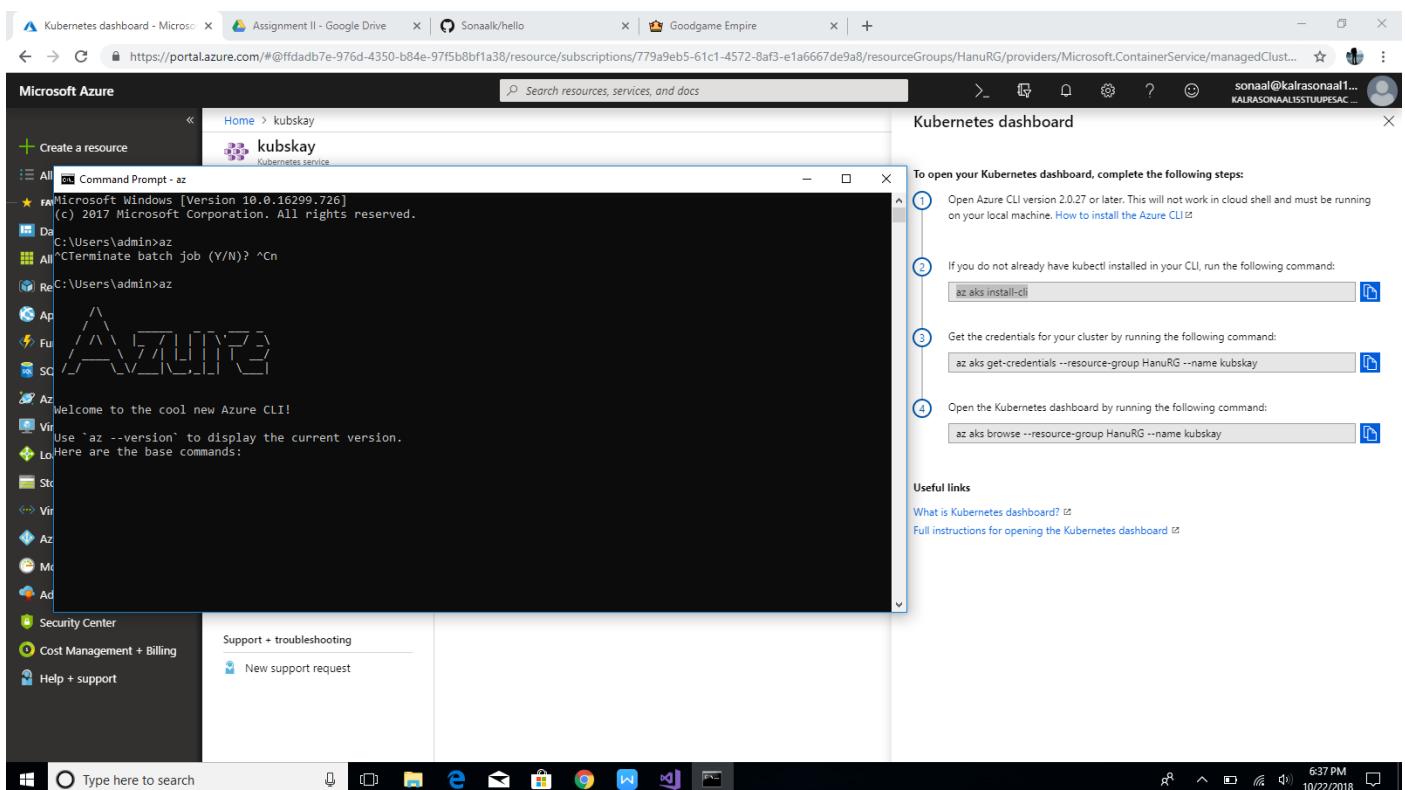
Create **Previous** **Next** Download a template for automation

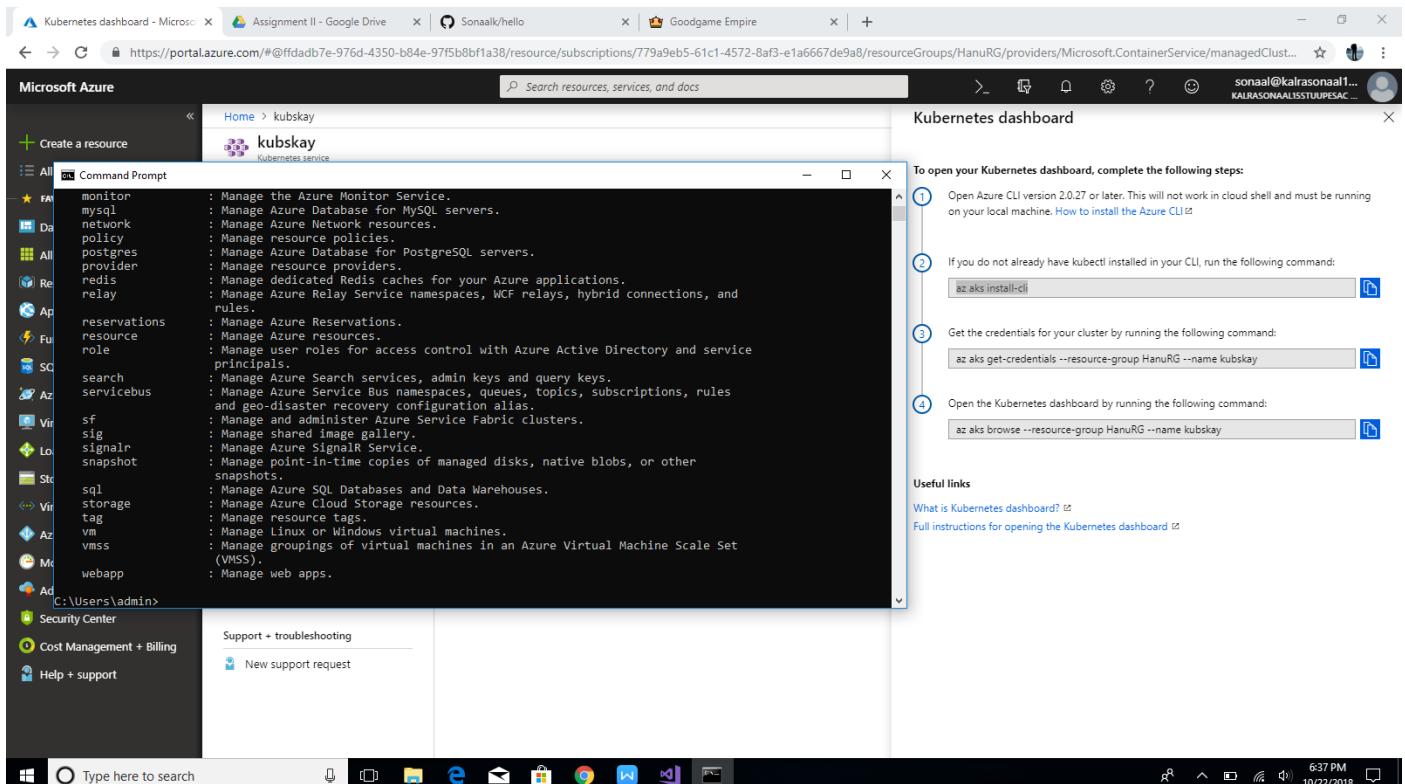
When the Kubernetes Cluster is Created Open it and Go to Kubernetes Dashboard.

Now Open Cmd and run the commands from Kubernetes Dashboard commands As shown in Images :



Run az in cmd



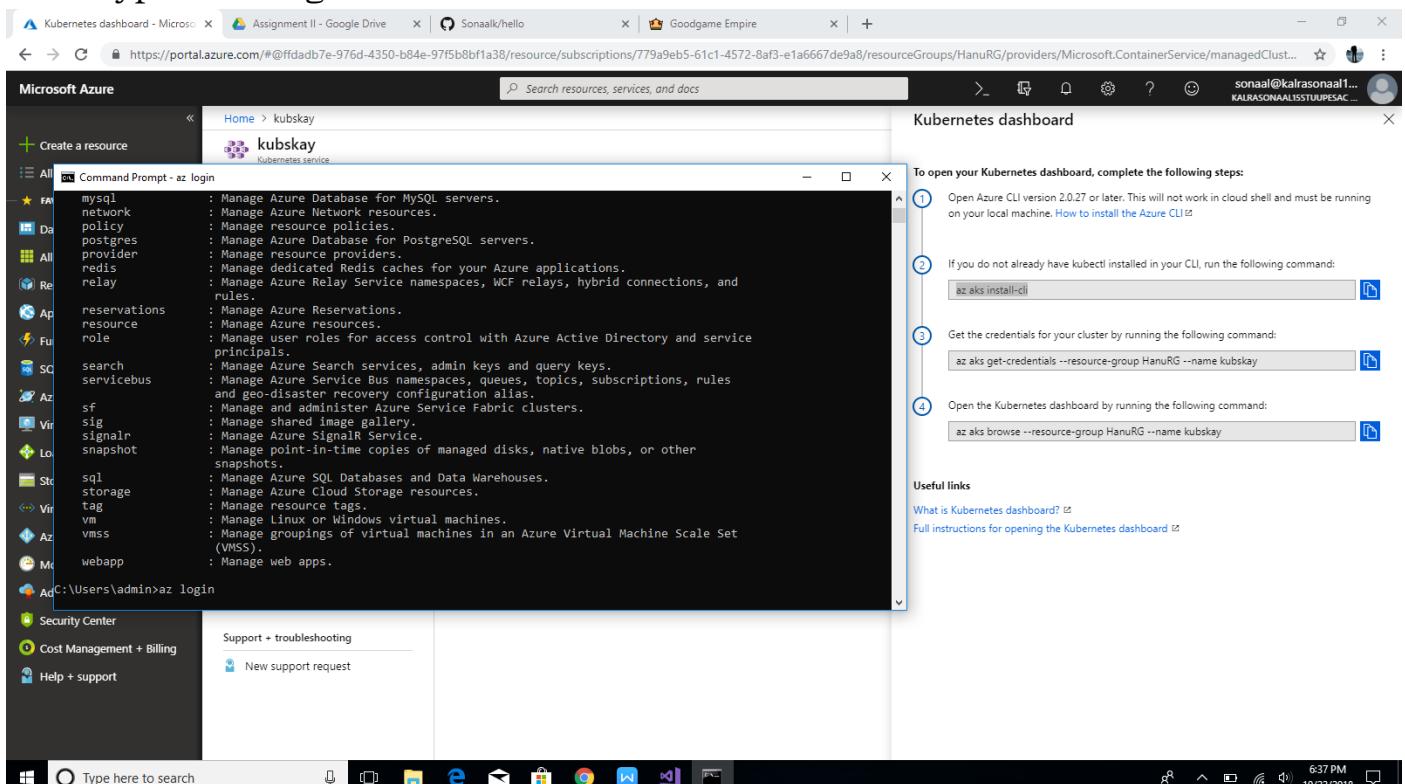


```
Microsoft Azure
Create a resource
Home > kubskay
Kubernetes service

Command Prompt
All
monitor : Manage the Azure Monitor Service.
mysql : Manage Azure Database for MySQL servers.
network : Manage Azure Network resources.
policy : Manage resource policies.
postgres : Manage Azure Database for PostgreSQL servers.
provider : Manage resource providers.
redis : Manage dedicated Redis caches for your Azure applications.
relay : Manage Azure Relay Service namespaces, WCF relays, hybrid connections, and rules.
reservations : Manage Azure Reservations.
resource : Manage Azure resources.
role : Manage user roles for access control with Azure Active Directory and service principals.
search : Manage Azure Search services, admin keys and query keys.
servicebus : Manage Azure Service Bus namespaces, queues, topics, subscriptions, rules and geo-disaster recovery configuration alias.
sf : Manage and administer Azure Service Fabric clusters.
sig : Manage Shared Image gallery.
signalr : Manage Azure SignalR Service.
snapshot : Manage point-in-time copies of managed disks, native blobs, or other snapshots.
sql : Manage Azure SQL Databases and Data Warehouses.
storage : Manage Azure Cloud Storage resources.
tag : Manage resource tags.
vm : Manage Linux or Windows virtual machines.
vms : Manage groupings of virtual machines in an Azure Virtual Machine Scale Set (VMS).
webapp : Manage web apps.

C:\Users\admin>
```

Now type az login :



```
Microsoft Azure
Create a resource
Home > kubskay
Kubernetes service

Command Prompt - az login
All
mysql : Manage Azure Database for MySQL servers.
network : Manage Azure Network resources.
policy : Manage resource policies.
postgres : Manage Azure Database for PostgreSQL servers.
provider : Manage resource providers.
redis : Manage dedicated Redis caches for your Azure applications.
relay : Manage Azure Relay Service namespaces, WCF relays, hybrid connections, and rules.
reservations : Manage Azure Reservations.
resource : Manage Azure resources.
role : Manage user roles for access control with Azure Active Directory and service principals.
search : Manage Azure Search services, admin keys and query keys.
servicebus : Manage Azure Service Bus namespaces, queues, topics, subscriptions, rules and geo-disaster recovery configuration alias.
sf : Manage and administer Azure Service Fabric clusters.
sig : Manage Shared Image gallery.
signalr : Manage Azure SignalR Service.
snapshot : Manage point-in-time copies of managed disks, native blobs, or other snapshots.
sql : Manage Azure SQL Databases and Data Warehouses.
storage : Manage Azure Cloud Storage resources.
tag : Manage resource tags.
vm : Manage Linux or Windows virtual machines.
vms : Manage groupings of virtual machines in an Azure Virtual Machine Scale Set (VMS).
webapp : Manage web apps.

C:\Users\admin>az login
```

Now copy the 3 commands from Kubernetes Dashboard:

The screenshot shows the Microsoft Azure portal interface. A search bar at the top contains the text "kubskay". Below it, a sidebar lists various services: sql, storage, tag, vm, vms, webapp, Ap, Az, and Ad. The main content area displays a terminal window titled "Command Prompt - az aks install-cli". The terminal shows the following command and its output:

```
C:\Users\admin>az login
Note, we have launched a browser for you to login. For old experience with device code, use "az login --use-device-code"
You have logged in. Now let us find all the subscriptions to which you have access...
[{"cloudName": "AzureCloud", "id": "779a9eb5-61c1-4572-8af3-e1a6667de9a8", "isDefault": true, "name": "Azure For Students", "state": "Enabled", "tenantId": "ffdadb7e-976d-4350-b84e-97f5b8bf1a38", "user": {"name": "sonaal@kalrasonaal15sttuupesac.onmicrosoft.com", "type": "user"}}
C:\Users\admin>az aks install-cli
```

To the right of the terminal, a "Kubernetes dashboard" panel provides instructions:

To open your Kubernetes dashboard, complete the following steps:

- 1 Open Azure CLI version 2.0.27 or later. This will not work in cloud shell and must be running on your local machine. [How to install the Azure CLI](#)
- 2 If you do not already have kubectl installed in your CLI, run the following command:
az aks install-clidefault
- 3 Get the credentials for your cluster by running the following command:
az aks get-credentials --resource-group HanuRG --name kubskay
- 4 Open the Kubernetes dashboard by running the following command:
az aks browse --resource-group HanuRG --name kubskay

Below these steps is a "Useful links" section with links to "What is Kubernetes dashboard?" and "Full instructions for opening the Kubernetes dashboard".

This screenshot is identical to the one above, showing the Microsoft Azure portal interface with the "kubskay" search term. The terminal window in the center shows the same command history and output as the first screenshot. The "Kubernetes dashboard" panel to the right also contains the same set of instructions and useful links.

Now the following page will open :

The screenshot shows the Kubernetes dashboard interface. On the left, a sidebar lists various cluster components like Namespaces, Nodes, Persistent Volumes, and Workloads. Under 'Namespaces', 'default' is selected. The main area is titled 'Resource creation' and has three tabs: 'CREATE FROM TEXT INPUT' (selected), 'CREATE FROM FILE', and 'CREATE AN APP'. Below these tabs is a text input area with placeholder text: 'Enter YAML or JSON content specifying the resources to deploy to the currently selected namespace.' A 'Learn more' link is provided. At the bottom of the input area are 'UPLOAD' and 'CANCEL' buttons. The status bar at the bottom right shows the time as 6:42 PM and the date as 10/22/2018.

This screenshot shows the same Kubernetes dashboard interface, but the 'CREATE AN APP' tab is now selected. The form fields are as follows: 'App name' (with a note: 'An 'app' label with this value will be added to the Deployment and Service that get deployed.'), 'Container image' (with a note: 'Enter the URL of a public image on any registry, or a private image hosted on Docker Hub or Google Container Registry.'), 'Number of pods' (set to 1), and 'Service' (set to 'None'). Below the main form is a 'SHOW ADVANCED OPTIONS' button. At the bottom of the form are 'DEPLOY' and 'CANCEL' buttons. The status bar at the bottom right shows the time as 6:42 PM and the date as 10/22/2018.

Fill the above details Appname, Container string as nginx:1.15.5

And both port as 80 and then click deploy.

Cluster

Namespaces

Nodes

Persistent Volumes

Roles

Storage Classes

Namespace

default

Overview

Workloads

Cron Jobs

Daemon Sets

Deployments

Jobs

Pods

Replica Sets

Replication Controllers

Stateful Sets

Discovery and Load Balancing

Workloads Statuses

Deployments

Pods

Replica Sets

Name	Labels	Pods	Age	Images
sonaal	k8s-app: sonaal	1 / 1	12 seconds	nginx:1.15.5

Name	Node	Status	Restarts	Age	CPU (cores)	Memory (bytes)
sonaal-5f77786df5-sspdz	aks-agentpool-22409415-0	Running	0	12 seconds	-	-

Type here to search

Services

sonaal

kubernetes

Name	Labels	Cluster IP	Internal endpoints	External endpoints	Age
sonaal	k8s-app: sonaal	10.0.89.69	sonaal:80 TCP sonaal:31498 TCP	168.61.187.12:80	2 minutes
kubernetes	component: apiserver provider: kubernetes	10.0.0.1	kubernetes:443 TCP kubernetes:0 TCP	-	an hour

Type here to search

Discovery and load balancing > Services

sonaal

kubernetes

Name	Labels	Cluster IP	Internal endpoints	External endpoints	Age
sonaal	k8s-app: sonaal	10.0.89.69	sonaal:80 TCP sonaal:31498 TCP	168.61.187.12:80	2 minutes
kubernetes	component: apiserver provider: kubernetes	10.0.0.1	kubernetes:443 TCP kubernetes:0 TCP	-	an hour

Type here to search

Discovery and load balancing

Ingresses

Services

Config and Storage

Config Maps

Persistent Volume Claims

Secrets

Settings

About

Now click on the external ports and the following page will appear as Welcome to nginx.



Welcome to nginx!

If you see this page, the nginx web server is successfully installed and working. Further configuration is required.

For online documentation and support please refer to nginx.org.
Commercial support is available at nginx.com.

Thank you for using nginx.

