

Cloud Computing Journal

Tanish Parab

31011121034

TY BSc Computer Science(Hons)

Index

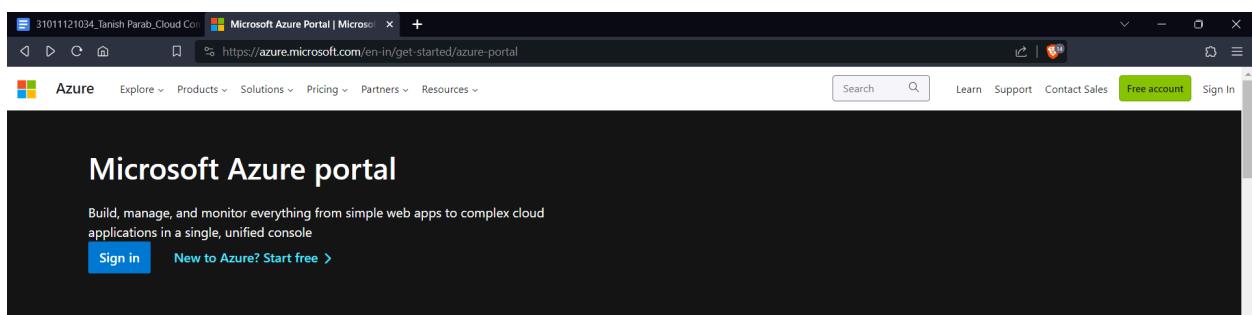
Sr.No	Name
01	Creating a Microsoft Azure account
02	Creating a Virtual Machine
03	Creating a storage account & browser
04	Adding a blob
05	Creating SQL Database and executing queries
06	PowerBI
07	Speech Services
08	Establishing connections between 2 Vm, 1Vm, and host computer
09	Web Hosting
10	Virtualization
11	Web Hosting

Practical 01

Aim: Creating a Microsoft Azure account

- Go to Microsoft Azure's official website

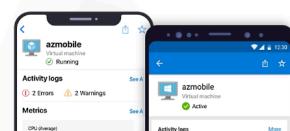
<https://azure.microsoft.com/en-in/get-started/azure-portal>



Azure mobile app

Stay connected to your Azure resources—anytime, anywhere. Now available for iOS and Android.

[Learn more >](#)

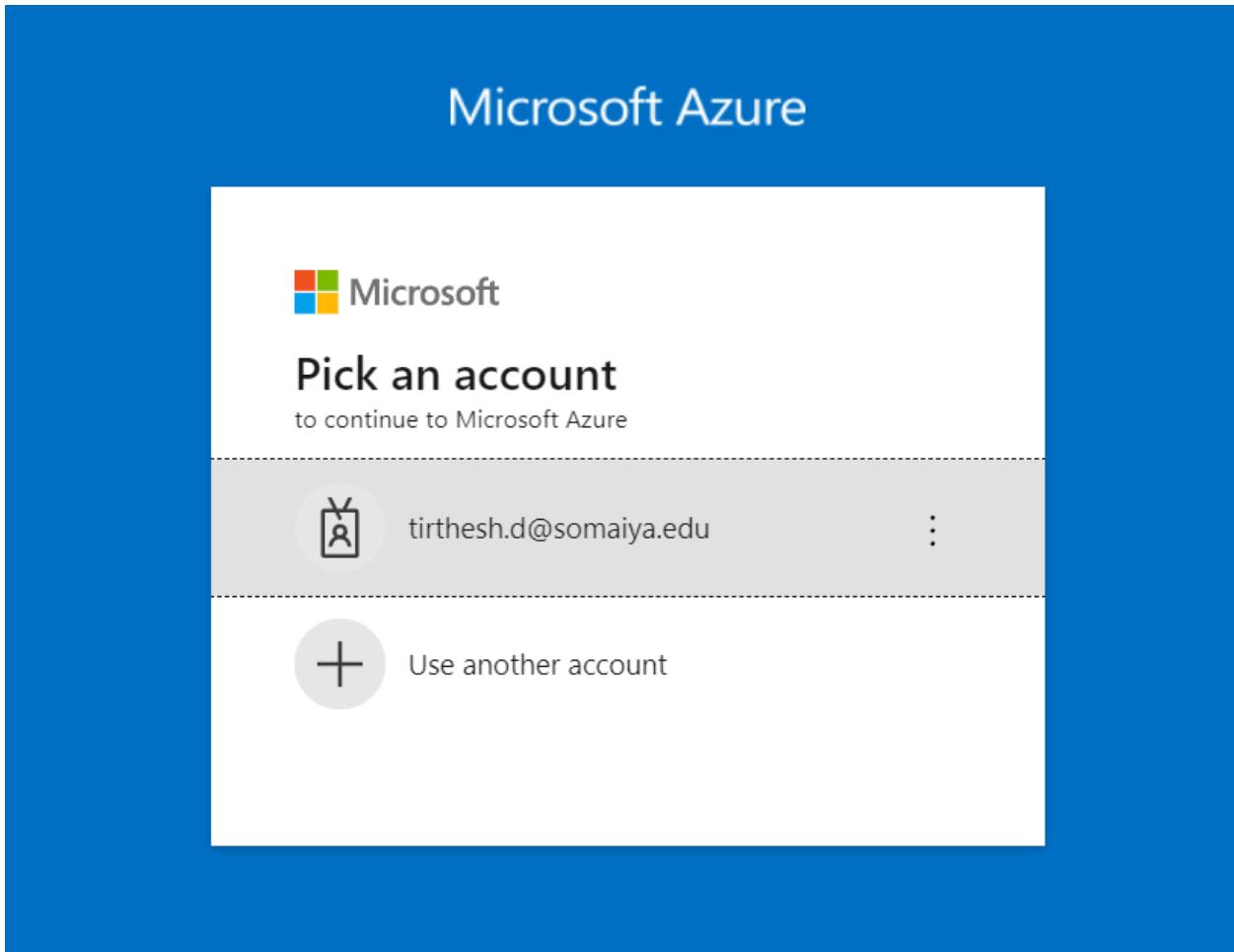


- Click on sign-in

[Free account](#)

[Sign In](#)

- Sign in using the Somaiya email ID only



- After signing in enable student access to your account

The screenshot shows the Microsoft Azure portal for a student subscription. At the top, it displays the URL <https://portal.azure.com/#@somaiya.edu/resource/subscriptions/961f93d6-47b7-48cf-a354-ad98b3a76cc6/overview>. The page title is "Azure for Students". The navigation bar includes "Home", "Subscriptions", and "Azure for Students". Below the navigation, there are buttons for "Upgrade", "Cancel subscription", "Rename", "Change directory", "Transfer billing ownership", and "Feedback". A warning message says "To check your remaining credit, visit <https://www.microsoftaresponsibilities.com>". The "Essentials" section provides detailed subscription information:

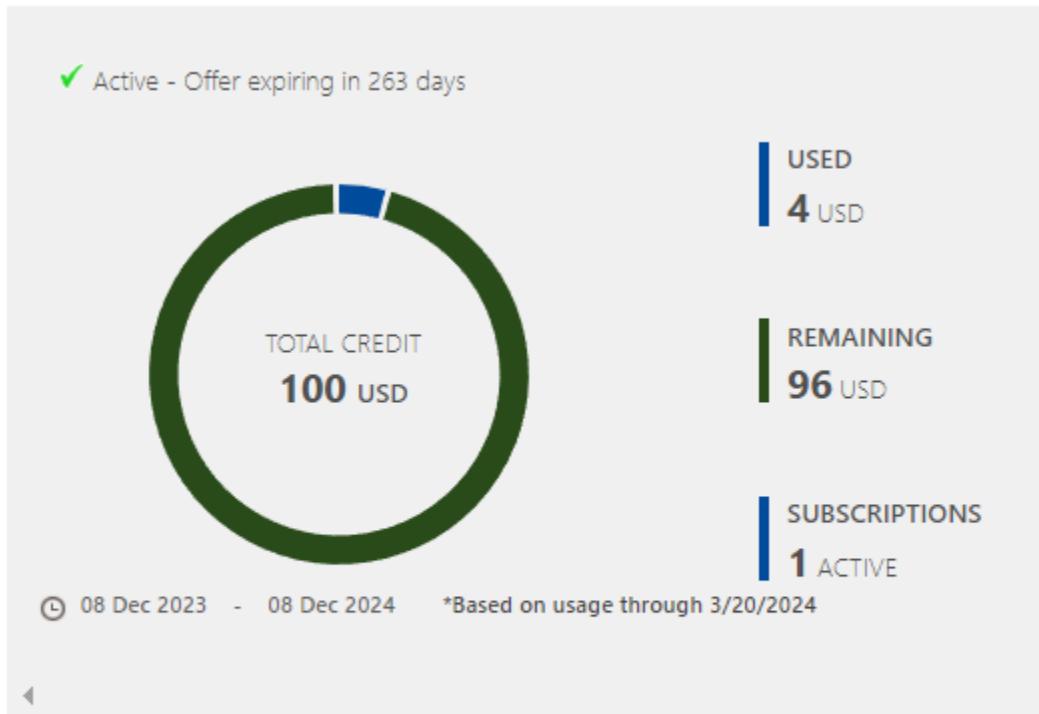
	:	
Subscription ID	:	961f93d6-47b7-48cf-a354-ad98b3a76cc6
Directory	:	somaiya.edu (somaiya.edu)
My role	:	Account admin
Offer	:	Azure for Students
Offer ID	:	MS-AZR-0170P
Parent management group	:	a64acab6-f01b-462b-aa9c-44546386f31

On the right, the "Subscription name" is "Azure for Students", "Current billing period" is "12/11/2023-1/10/2024", "Currency" is "INR", "Status" is "Active", and "Secure Score" is "29%".

Two cards are displayed below the essentials section:

- Top products by number of resources:** Shows a chart with one data point (1) and a note: "You don't have any resources in this subscription".
- Azure Defender coverage:** A donut chart showing 0% coverage across 2 total items. Buttons include "Upgrade coverage" and "View coverage details".

- Free credits will be transferred to your account



tirthesh.d@somaiya.edu

Practical o2

Aim: Creating Virtual Machines in Microsoft Azure

- Type ‘Virtual Machine’ in the Search box

The screenshot shows the Microsoft Entra ID search results page. At the top, there is a search bar with the text "virtual machines". Below the search bar, there are several navigation buttons: "All" (selected), "Services (25)", "Marketplace (4)", "Documentation (0)", and "Microsoft Entra ID (0)". The "Services" section is currently active, indicated by a blue underline. Under this section, there is a list of services:

- Virtual machines** (selected)
- Virtual machines (classic)**
- Reservations**
Keywords: **Virtual machines**
- Savings plans**
Keywords: **virtual machines**

- Click on the Virtual Machine option

The screenshot shows the Microsoft Azure Virtual Machines blade. The URL in the browser is <https://portal.azure.com/#view/HubsExtension/BrowseResource/resourceType/Microsoft.Compute%2FVirtualMachines>. The page title is "Virtual machines - Microsoft Azure". The main content area displays the following message:

No virtual machines to display

Create a virtual machine that runs Linux or Windows. Select an image from the marketplace or use your own customized image.

[Create](#)

Below this, there are links to "Learn more about Windows virtual machines" and "Learn more about Linux virtual machines". In the bottom right corner, there is a "Give feedback" link.

- Create a new virtual machine

Create a virtual machine

Basics Disks Networking Management Monitoring Advanced Tags Review + create

Create a virtual machine that runs Linux or Windows. Select an image from Azure marketplace or use your own customized image. Complete the Basics tab then Review + create to provision a virtual machine with default parameters or review each tab for full customization. [Learn more](#)

Project details

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

Subscription * Resource group * [Create new](#)

Instance details

Virtual machine name *

Region *

Availability options

Availability zone *

[Review + create](#) [< Previous](#) [Next : Disks >](#) [Give feedback](#)

CreateVm-canonical.0001-com-ubuntu-server-focal-2-20231220072550 | Overview

Deployment

Your deployment is complete

Deployment name: CreateVm-canonical.0001-com-ubuntu-server-focal-2-20231220072550 Start time: 12/20/2023, 7:31:17 AM
Subscription: Azure for Students Correlation ID: 668c7c63-a33d-4eb2-90a2-04920f5c551

Deployment details

Resource	Type	Status	Operation details
Tanish1	Microsoft.Compute/virtualMachines	OK	Operation details
tanish1534_z1	Microsoft.Network/networkInterfaces	Created	Operation details
Tanish1-ip	Microsoft.Network/publicIPAddresses	OK	Operation details
Tanish1-vnet	Microsoft.Network/virtualNetworks	OK	Operation details
Tanish1-nsg	Microsoft.Network/networkSecurityGroups	OK	Operation details

Next steps

[Setup auto-shutdown](#) Recommended
[Monitor VM health, performance and network dependencies](#) Recommended
[Run a script inside the virtual machine](#) Recommended

[Go to resource](#) [Create another VM](#)

Give feedback

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

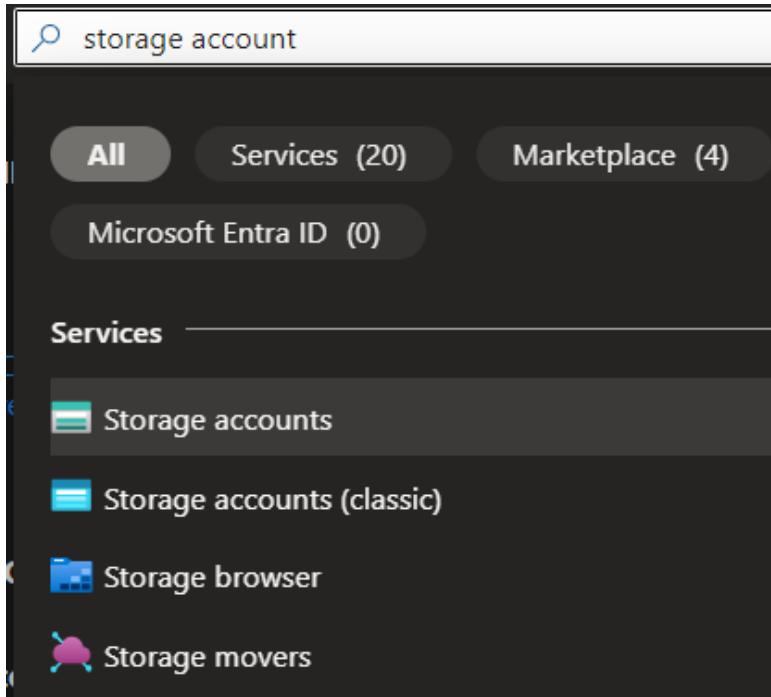
Microsoft Defender for Cloud
Secure your apps and infrastructure
[Go to Microsoft Defender for Cloud >](#)

Work with an expert
Azure experts are service provider partners who can help manage your assets on Azure and be your first line of support.
[Find an Azure expert >](#)

Practical 03

Aim: Creating a storage account

- Type storage account in the search box



- Click on storage accounts

Storage accounts - Microsoft Azure

Search resources, services, and docs (G+)

Home > Storage accounts

+ Create | Restore | Manage view | Refresh | Export to CSV | Open query | Assign tags | Delete

Filter for any field... Subscription equals all Resource group equals all Location equals all Add filter

No grouping List view

Showing 0 to 0 of 0 records.

Name	Type	Kind	Resource group	Location	Subscription
------	------	------	----------------	----------	--------------

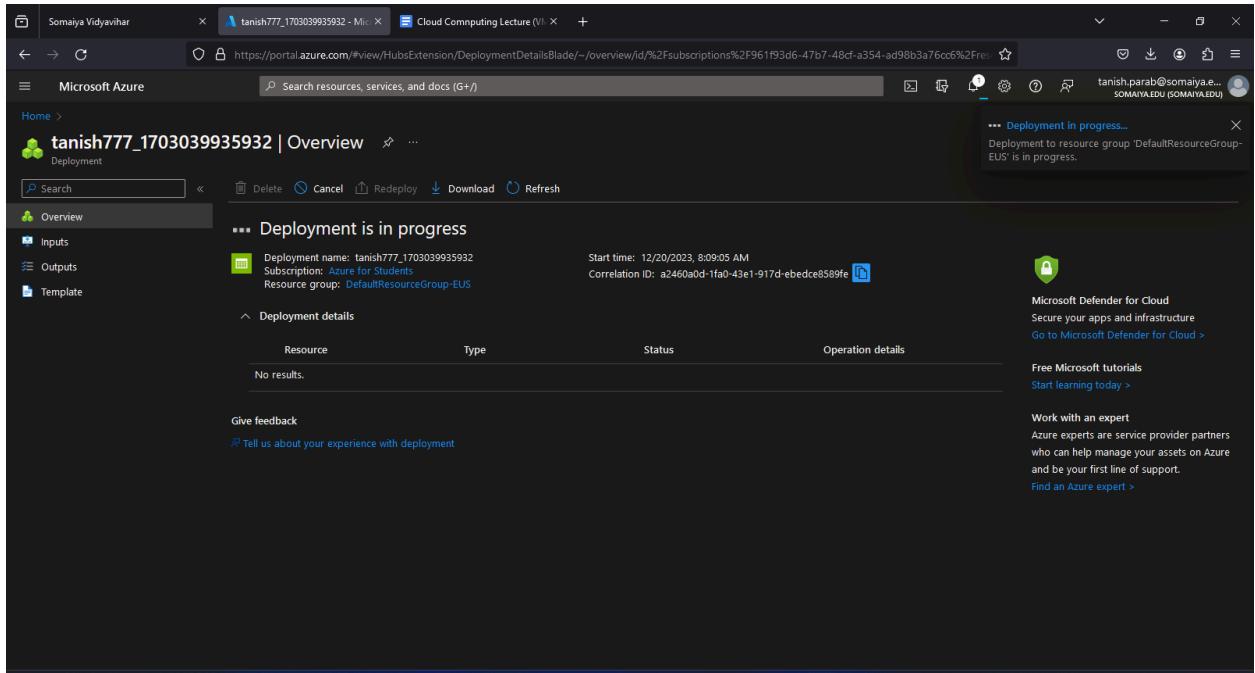
No storage accounts to display

Create a storage account to store up to 500TB of data in the cloud. Use a general-purpose storage account to store object data, use a NoSQL data store, define and use queues for message processing, and set up file shares in the cloud. Use the Blob storage account and the hot or cool access tiers to optimize your costs based on how frequently your object data is accessed.

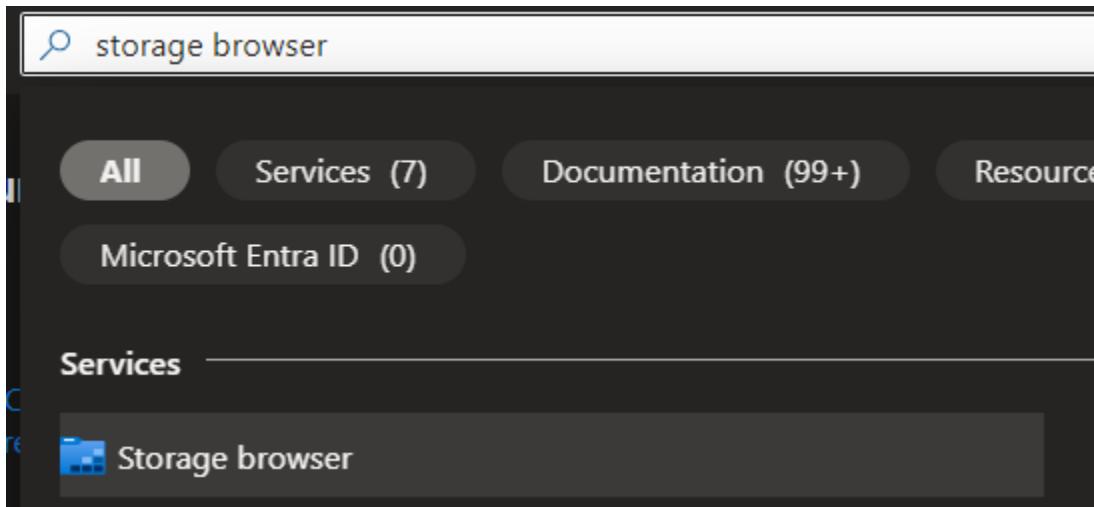
Learn more

Give feedback

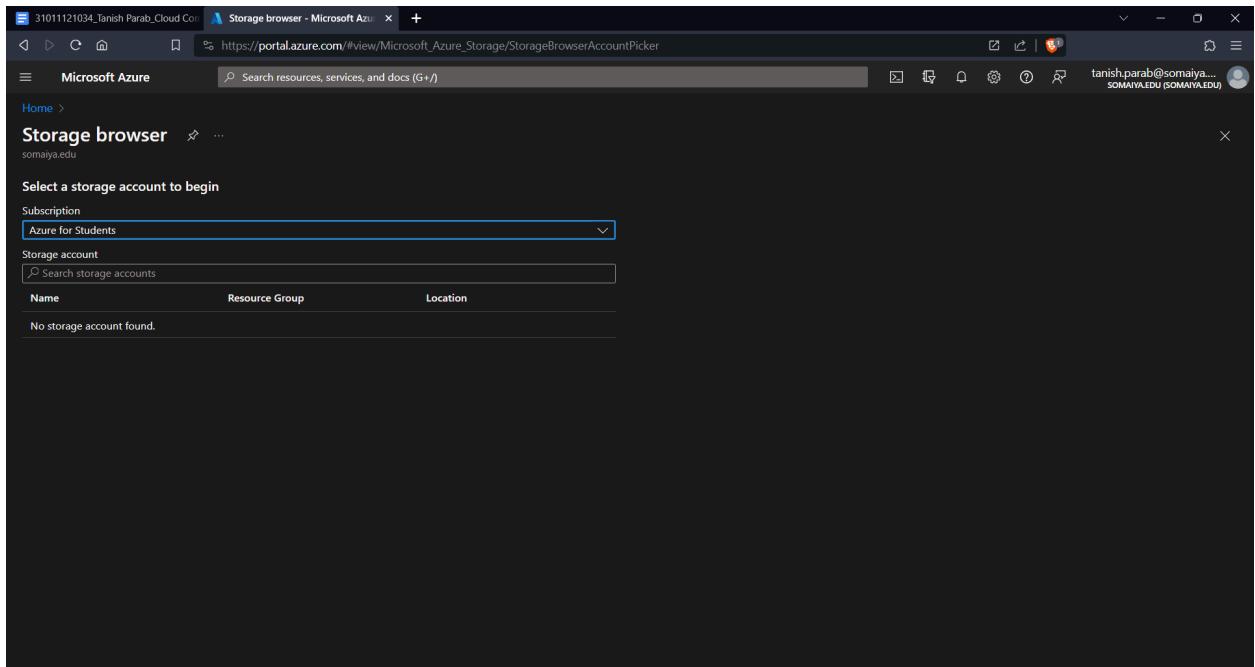
- Create a new storage account



- Search for Storage Browser in the search box



- Click on storage browser



Practical o4

Aim: Adding a Blob

The screenshot shows the Microsoft Azure Storage browser interface for the 'sandeepstorageaccount'. The left sidebar navigation includes 'Overview', 'Activity log', 'Tags', 'Diagnose and solve problems', 'Access Control (IAM)', 'Data migration', 'Events', 'Storage mover', 'Data storage' (with 'Containers', 'File shares', 'Queues', 'Tables'), 'Security + networking' (with 'Networking', 'Front Door and CDN', 'Access keys', 'Shared access signature', 'Encryption', 'Microsoft Defender for Cloud'), and 'Data management' (with 'Redundancy'). The main content area displays the 'Blob containers' section with two items: 'slogs' (Last modified: 22/2/2024, 12:11:27 pm, Private, Available) and 'sandeepcontainer' (Last modified: 22/2/2024, 12:12:29 pm, Private, Available). A search bar at the top right allows searching by prefix. The top navigation bar shows the URL as https://portal.azure.com/#resource/subscriptions/96193d6-47b7-48cf-a354-ad98b3a76cc6/resourcegroups/sandeep/providers/Microsoft.Storage/storageAccounts/sandeepstorageaccount.

Notifications

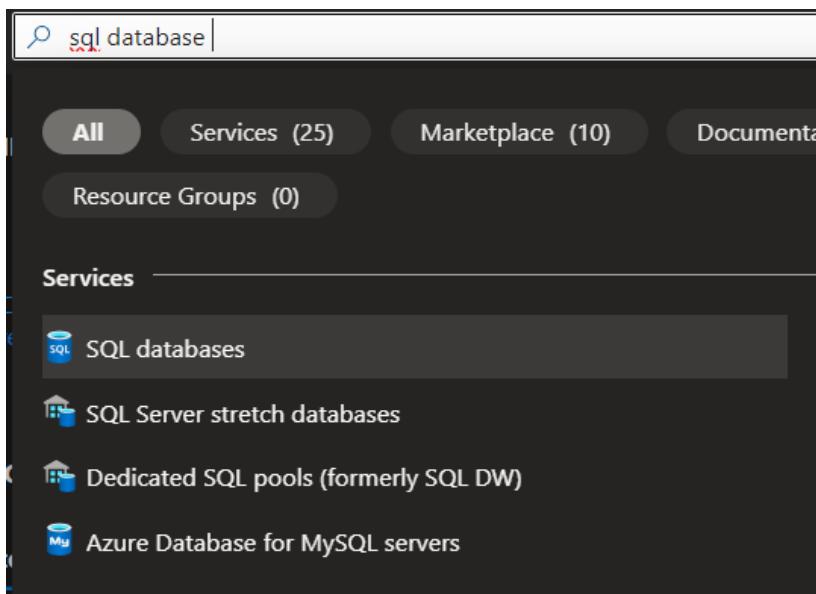
More events in the activity log → Dismiss all ▾

- Successfully added entity ▾ Successfully added entity 'parab-tanish'. a few seconds ago
- Successfully created storage table ▾ Successfully created storage table 'sandeepable'. a few seconds ago
- Successfully created storage container ▾ Successfully created storage container 'sandeepcontainer'. 2 minutes ago
- Deployment succeeded ▾ Deployment 'CreateVm-canonical.0001-com-ubuntu-server-focal-3-20240222120602' to resource group 'sandeep' was successful. 3 minutes ago
- Deployment succeeded ▾ Deployment 'CreateVm-canonical.0001-com-ubuntu-server-focal-3-20240222120602' to resource group 'sandeep' was successful. 5 minutes ago

Practical 05

Aim: Sql database

- Search for SQL Database in the Search Box



- Click on Sql Database option

The screenshot shows the Microsoft Azure portal interface. The top navigation bar includes tabs for 'Somaya VidyaVihar' and 'SQL databases - Microsoft Azure'. The main content area is titled 'SQL databases' under 'All services'. It features a search bar and various filter options like 'Subscription equals all', 'Resource group equals all', and 'Location equals all'. A message at the top states 'Showing 0 to 0 of 0 records.' Below this is a large blue cylinder icon with the word 'SQL' on it. A central message says 'No SQL databases to display' with the sub-instruction 'Try changing or clearing your filters.' Two buttons are present: 'Create SQL database' and 'Learn more'.

● Create a new SQL Database

The screenshot shows the 'Create SQL Database' wizard in the Microsoft Azure portal. The title bar indicates the page is 'Create SQL Database - Microsoft Azure'. The left sidebar shows 'All services > SQL databases > Create SQL Database'. The main content area has a header 'Create SQL Database' with a 'Microsoft' logo. A warning message at the top reads: '⚠️ Changing Basic options may reset selections you have made. Review all options prior to creating the resource.' Below this are several tabs: 'Basics' (selected), 'Networking', 'Security', 'Additional settings', 'Tags', and 'Review + create'. A note on the left says: 'Create a SQL database with your preferred configurations. Complete the Basics tab then go to Review + Create to Provision with smart defaults, or visit each tab to customize.' A 'Learn more' link is provided. On the right, there's a 'Cost summary' section for a 'Hyperscale (HS_Gen5_2) - Primary replica' configuration. The cost details are as follows:

Cost per vCore (in INR)	11519.12
vCores selected	x 2
Cost per vCore (in INR)	11519.12
vCores selected	x 2
HA replicas	x 0
ESTIMATED COMPUTE COST / MONTH	23038.25 INR
STORAGE COST / GB / MONTH	22.34 INR

Below the cost summary is a 'Storage notes' section. At the bottom of the page are two buttons: 'Review + create' and 'Next : Networking >'.

The screenshot shows the Microsoft Azure portal interface. The top navigation bar includes tabs for 'Somaiya VidyaVihar', 'Microsoft.SQLDatabase.newData...', 'Cloud Computing Lecture (V)...', and a search bar. The main content area is titled 'Microsoft.SQLDatabase.newDatabaseNewServer_7bad36743bfe4d3aabc5a | Overview'. On the left, there's a sidebar with 'Deployment' selected, followed by 'Overview', 'Inputs', 'Outputs', 'Template', and 'Tags'. Below the sidebar, 'Deployment details' are listed with a table header: 'Resource', 'Type', 'Status', and 'Operation details'. A note below the table says 'There are no resources to display.' At the bottom of the main content area, there are links for 'Give feedback' and 'Tell us about your experience with deployment'.

- Run query in the database

The screenshot shows the Microsoft Azure portal interface, specifically the 'Query editor (preview)' section for the 'tanish (tanish/tanish)' database. The left sidebar shows 'Overview', 'Activity log', 'Tags', 'Diagnose and solve problems', 'Query editor (preview)', 'Compute + storage', 'Connection strings', 'Properties', 'Locks', 'Views', 'Stored Procedures', 'Tables' (with 'dbo.test1' expanded), 'Views', and 'Stored Procedures'. The main area has a 'Query 1' tab with a code editor containing the following SQL code:

```
1 CREATE TABLE test1 (
2     column1 char,
3     column2 char,
4     column3 char,
5 );
6 
```

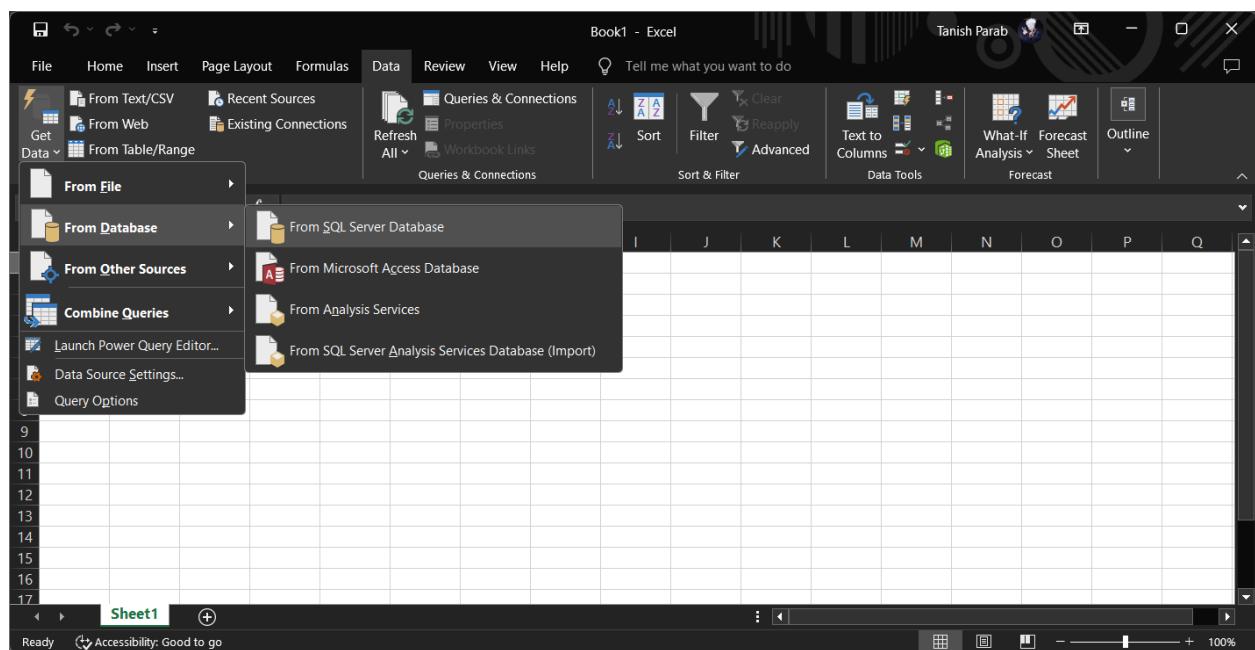
Below the code editor, there are 'Run', 'Cancel query', 'Save query', 'Export data as', and 'Show only Editor' buttons. The 'Messages' tab is selected, showing the message 'Query succeeded: Affected rows: 0'.

Sql code :

Unset

```
CREATE TABLE Employees (
    ID INT PRIMARY KEY,
    Name VARCHAR(100),
    Salary Decimal (10,2),
);
INSERT INTO Employees (ID, Name, Salary)
VALUES (1, 'Shubham',500.00 ),
       (2, 'Aman ',110.00),
       (3, 'Naveen', 4000.0);
```

- Connect SQL Database to MS Excel and import the data



The screenshot shows the Microsoft Power Query Editor interface. The ribbon at the top has tabs for File, Home, Transform, Add Column, and View. The Home tab is selected. The ribbon contains various icons for managing queries, such as Close & Load, Refresh, Properties, Advanced Editor, and Manage. Below the ribbon is a toolbar with buttons for Close, Refresh, Properties, Advanced Editor, Choose Columns, Remove Rows, Sort, Split Column, Group By, Replace Values, Merge Queries, Append Queries, Combine Files, Manage Parameters, Data source settings, and New Source. A 'Queries' list on the left shows a single item named 'Persons'. The main workspace displays a table with three rows of data:

	PersonID	LastName	FirstName	Address	City
1	1	Parab	Tanish	Badlapur	Thane
2	2	Parab	Tanish2	Badlapur	Thane
3	1	Parab	Tanish3	Badlapur	Thane

The status bar at the bottom indicates "5 COLUMNS, 3 ROWS" and "Column profiling based on top 1000 rows". On the right side, there is a "Query Settings" pane with sections for "PROPERTIES" (Name: Persons) and "APPLIED STEPS" (Source, Navigation). A small preview window in the bottom right corner shows a snippet of the Power BI report.

Practical o6

Aim: Power BI

- Search for SQL Database in the Search Box

The screenshot shows the Azure portal search interface. A search bar at the top contains the text "sql database". Below the search bar, there are four filter buttons: "All" (selected), "Services (25)", "Marketplace (10)", and "Documentation (0)". Under the "Resource Groups (0)" section, there is a "Services" heading. The first item listed is "SQL databases", which is highlighted with a blue selection bar. Below it are other service options: "SQL Server stretch databases", "Dedicated SQL pools (formerly SQL DW)", and "Azure Database for MySQL servers".

- Click on SQL Database option

The screenshot shows the Azure portal with the URL "https://portal.azure.com/#view/HubsExtension/BrowseResource/resourceType/Microsoft.Sql%2Fservers%2Fdatabases" in the address bar. The page title is "SQL databases - Microsoft Azure". The main content area displays the "SQL databases" blade. At the top, there are buttons for "+ Create", "Reservations", "Manage view", "Refresh", "Export to CSV", "Open query", "Assign tags", and "Delete". Below these are filter options: "Filter for any field...", "Subscription equals all", "Resource group equals all", "Location equals all", and "Add filter". A message at the top states "Showing 0 to 0 of 0 records." The main table has columns: Name (sorted by ascending), Server (sorted by ascending), Replica type (sorted by ascending), Pricing tier (sorted by ascending), Location (sorted by ascending), and Subscription (sorted by ascending). A large "SQL" icon is centered on the page, and the text "No SQL databases to display" is displayed below it. A note says "Try changing or clearing your filters:" followed by a "Create SQL database" button and a "Learn more" link. In the bottom right corner, there is a "Give feedback" link.

● Create a new SQL Database

Cost summary

Hyperscale (HS_Gen5_2) - Primary replica	
Cost per vCore (in INR)	11519.12
vCores selected	x 2

Hyperscale (HS_Gen5_2) - HA replicas	
Cost per vCore (in INR)	11519.12
vCores selected	x 2
HA replicas	x 0

ESTIMATED COMPUTE COST / MONTH	
INR	23038.25
STORAGE COST / GB / MONTH	22.34 INR

Storage Notes: This database uses a serverless storage model where the first 100,000 vCore seconds are free.

Deployment

Deployment name : Microsoft.SQLDatabase.newDatabaseNewServer_7bad36743bfe4d3aab5a Start time : 12/20/2023, 8:25:01 AM
Correlation ID : cc074bff-9c89-49d8-85e7-6211156b7cc5

Subscription : Azure for Students Resource group : tanish2_group

Deployment details

Resource	Type	Status	Operation details
There are no resources to display.			

Give feedback
Tell us about your experience with deployment

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
Azure experts are service provider partners who can help manage your assets on Azure and be your first line of support.
[Find an Azure expert >](#)

● Run query in the database

Screenshot of the Microsoft Azure SQL Database Query editor (preview). The left sidebar shows database settings like Compute + storage, Connection strings, Properties, Locks, Data management, Replicas, Integrations, and Power Platform. The main area displays a query window titled 'Query 1' containing the following SQL code:

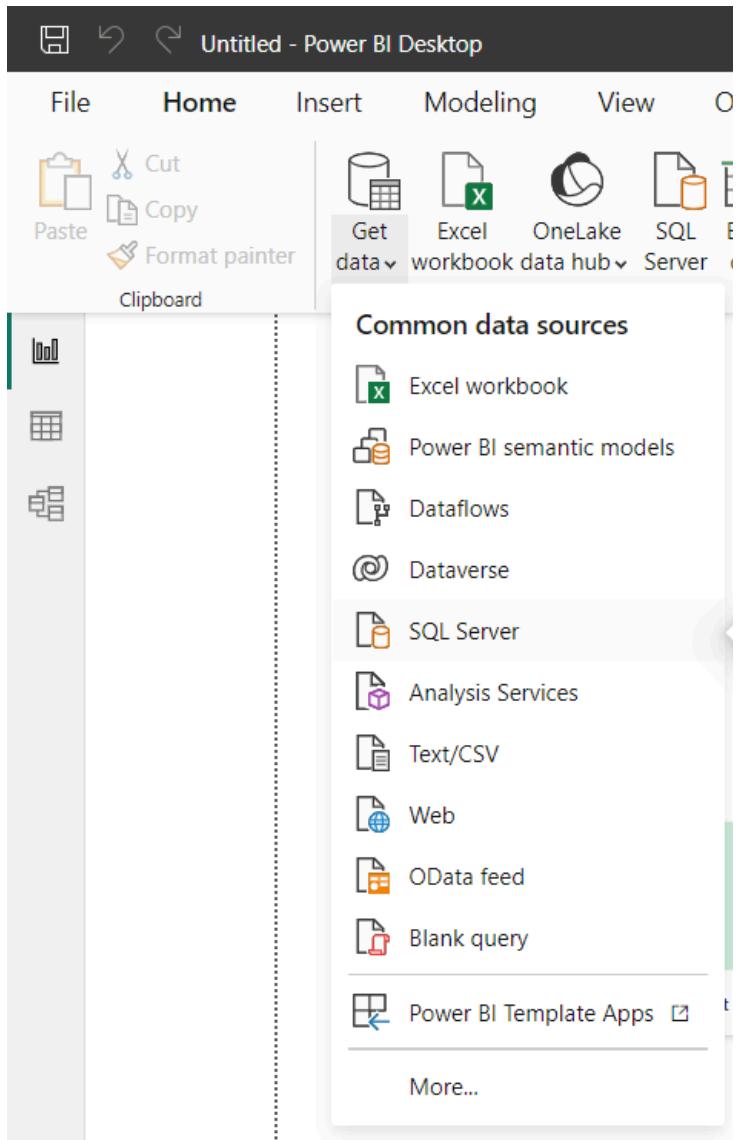
```
1 CREATE TABLE test1 (
2     column1 char,
3     column2 char,
4     column3 char,
5 );
6
```

The status bar at the bottom indicates 'Query succeeded | 0s'.

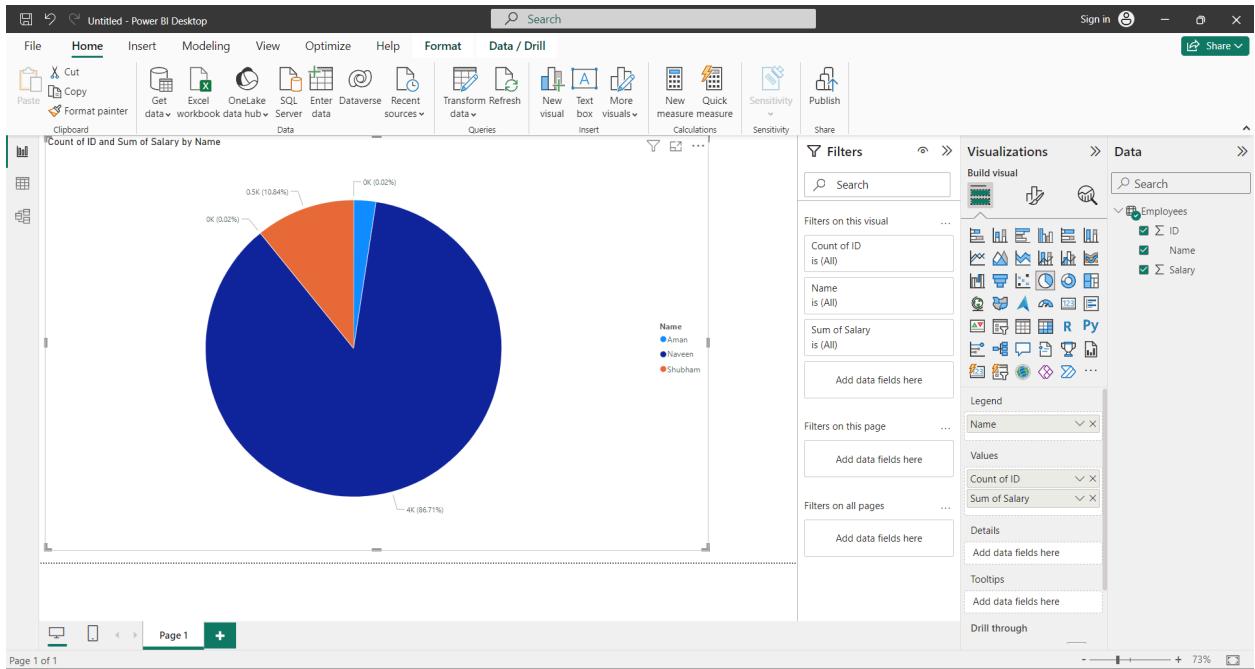
- Open PowerBI

Screenshot of Power BI Desktop. The interface includes a ribbon with File, Home, Insert, Modeling, View, Optimize, and Help tabs. The Home tab is selected, showing various data import options: 'Import data from Excel', 'Import data from SQL Server', 'Paste data into a blank table', and 'Try a sample semantic model'. Below these are buttons for 'Transform data', 'New visual', 'Text box', 'More box', 'Insert', 'New measure', 'Quick measure', 'Sensitivity', and 'Publish'. The right side features a 'Visualizations' pane with a 'Build visual' button and a large library of visualization icons. A 'Filters' pane is also visible. The bottom of the screen shows a preview area with 'Page 1' and a green '+' button.

- Click on get data -> Sql server



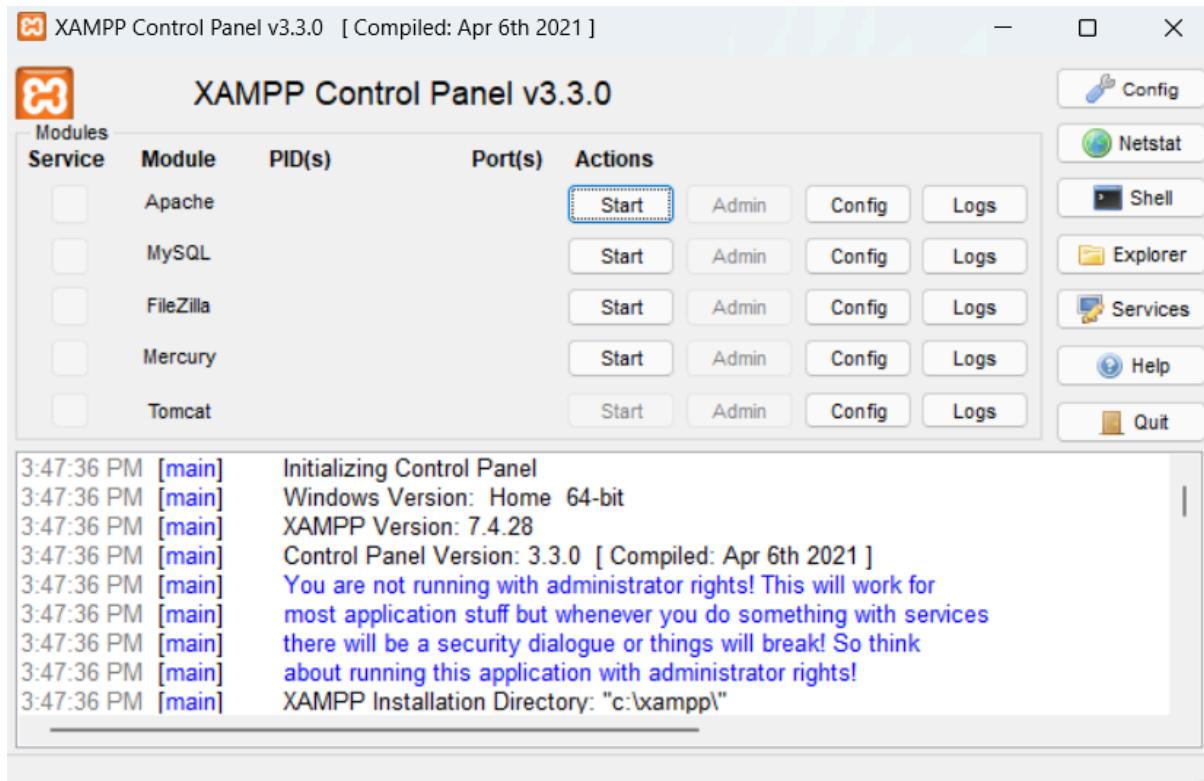
- Connect to your SQL database Server



Practical 07

Aim: Web Feeds

1. Download the XAMPP application.



2. Write the following HTML code and PHP code and save both the files in a new folder in the xampp/htdocs folder

HTML Code :

```
JavaScript

<html>
<head>
<script> function showRSS(str) {
if (str.length == 0) {
document.getElementById("output").innerHTML = "";
return;
}
if (window.XMLHttpRequest) {
xmlhttp = new XMLHttpRequest();
} else {
xmlhttp = new ActiveXObject("Microsoft.XMLHTTP");
}
```

```

xmlhttp.onreadystatechange = function() {
if (xmlhttp.readyState == 4 && xmlhttp.status == 200) {
document.getElementById("output").innerHTML = xmlhttp.responseText;

}
}
xmlhttp.open("GET","ccpracphp.php?q=" +str,true);
xmlhttp.send();
}
</script>
</head>
<body>
<p>Please Select an option to get RSS:</p>
<form>
<select onchange = "showRSS(this.value)">
<option value = "">Select an RSS-feed:</option>
<option value = "cnn">CNN</option>
<option value = "bbc">BBC News</option>
<option value = "pcw">PC World</option>
</select>
</form>
<br>
<div id = "output">RSS-feeds</div>
</body>
</html>

```

PHP Code :

```

JavaScript
<?php
$q = isset($_GET["q"]) ? $_GET["q"] : "";
$xml = "";
if ($q == "cnn") {
$xml = "http://rss.cnn.com/rss/cnn_topstories.rss";

```

```

} elseif ($q == "bbc") {
    $xml =
"http://newsrss.bbc.co.uk/rss/newsonline_world_edition/americas/rss.xml";
} elseif ($q == "pcw") {
    $xml = "http://www.pcworld.com/index.rss";
}

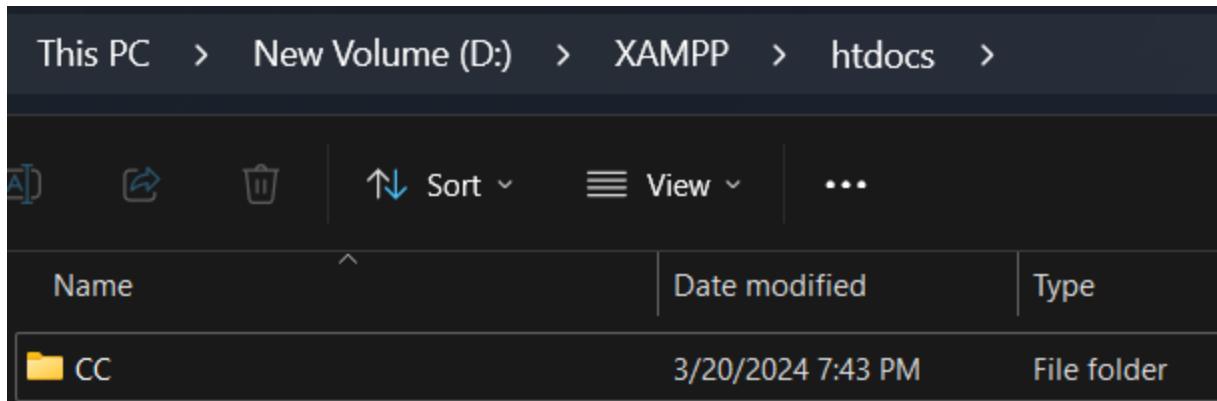
if ($xml !== "") {
    $xmlDoc = new DOMDocument();
    if ($xmlDoc->load($xml)) {
        $channel = $xmlDoc->getElementsByTagName('channel')->item(0);
        $channel_title = $channel->getElementsByTagName('title')
            ->item(0)->childNodes->item(0)->nodeValue;
        $channel_link = $channel->getElementsByTagName('link')
            ->item(0)->childNodes->item(0)->nodeValue;
        $channel_desc = $channel->getElementsByTagName('description')
            ->item(0)->childNodes->item(0)->nodeValue;

        echo("<p><a href=\"" . $channel_link . "\">" . $channel_title . "</a></p>");
        echo("<p>" . $channel_desc . "</p>");

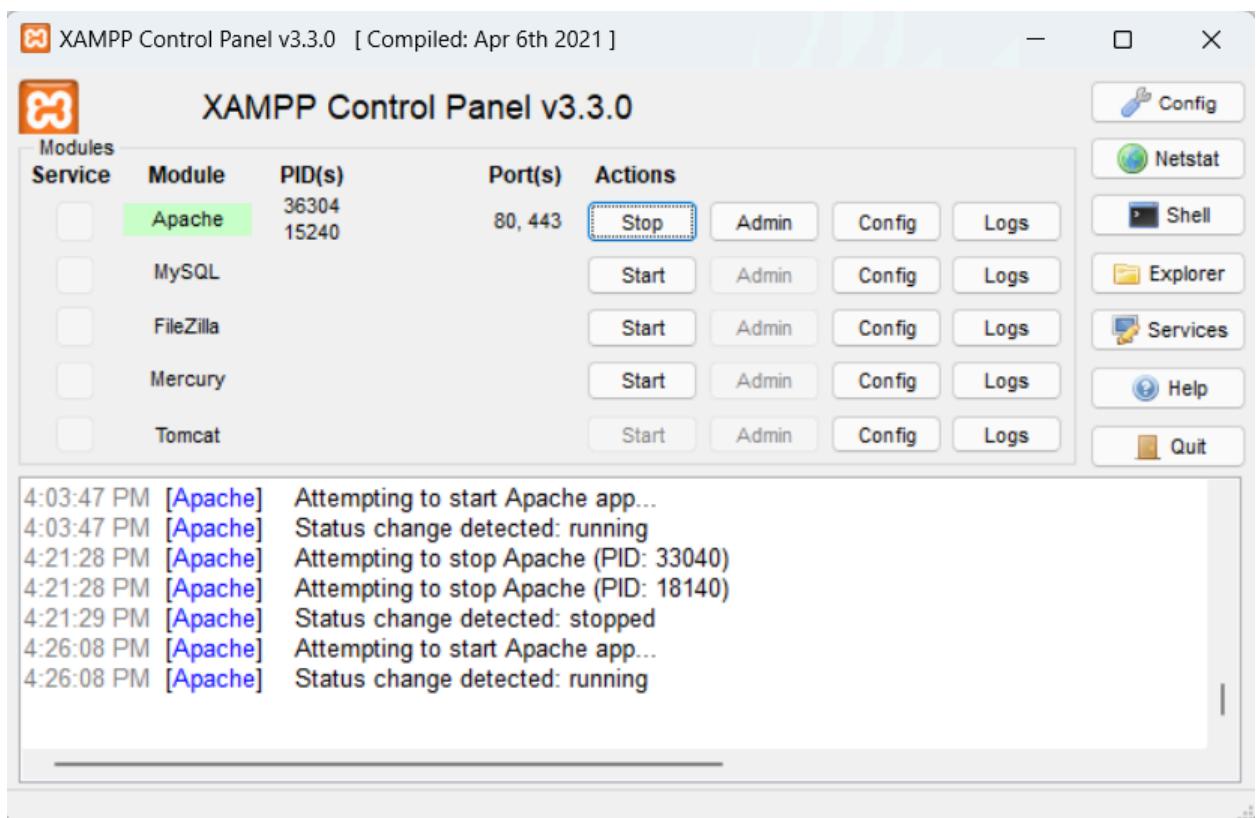
        $x = $xmlDoc->getElementsByTagName('item');
        for ($i = 0; $i <= 2; $i++) {
            $item_title = $x->item($i)->getElementsByTagName('title')
                ->item(0)->childNodes->item(0)->nodeValue;
            $item_link = $x->item($i)->getElementsByTagName('link')
                ->item(0)->childNodes->item(0)->nodeValue;

            echo ("<p><a href=\"" . $item_link . "\">" . $item_title . "</a></p>");
        }
    } else {
        echo "Failed to load XML";
    }
} else {
    echo "No RSS feed selected";
}
?>

```



3. Start the “Apache” service



4. In the browser, navigate to localhost/foldername (here it is localhost/ccprac). Then select the html file (TANISHHHH.html)

The screenshot shows a web browser window with the URL `localhost/ccprac/` in the address bar. The page title is "Index of /ccprac". Below the title is a table with the following data:

Name	Last modified	Size	Description
Parent Directory		-	
ccprac5.html	2024-01-26 16:16	882	
ccpracphp.php	2024-01-26 16:16	1.8K	

At the bottom of the page, the server information is displayed: *Apache/2.4.52 (Win64) OpenSSL/1.1.1m PHP/7.4.28 Server at localhost Port 80*.

5. Select any of the options and the RSS feed will be displayed

The screenshot shows a web browser window with the URL `localhost/ccprac/ccprac5.html` in the address bar. The page content starts with the text "Please Select an option to get RSS:" followed by a dropdown menu containing the option "CNN".

[CNN.com - RSS Channel - HP Hero](#)
CNN.com delivers up-to-the-minute news and information on the latest top stories, weather, entertainment, politics and more.
[Some on-air claims about Dominion Voting Systems were false, Fox News acknowledges in statement after deal is announced](#)
[Dominion still has pending lawsuits against election deniers such as Rudy Giuliani and Sidney Powell](#)
[Here are the 20 specific Fox broadcasts and tweets Dominion says were defamatory](#)

Practical o8

Aim: AI Services

- Create a speech service in MS Azure

The screenshot shows the Azure portal interface for managing AI services. The left sidebar lists various AI services, with 'Speech service' currently selected. The main content area displays a message stating 'No speech services to display' and includes a 'Create speech service' button. At the top right, there is a 'Notifications' section showing a recent event: 'Executed delete command on 1 selected items'.

Tanishhhhh7 - Microsoft Azure | **Cloud Computing Practical Sp1** | **31011121034_Tanish_Parab_Cloud** | Overview

Microsoft Azure

Tanishhhhh7 Speech service

Overview

Essentials

Resource group (move) : **Tanish_RG**

Status : Active

Location : Central India

Subscription (more) : **Azure for Students**

Subscription ID : 96f193d6-47b7-48cd-a354-ad98b3a76cc6

Tags (edit) | Add tags

API Kind : SpeechServices

Pricing tier : Standard

Endpoint : https://centralindia.api.cognitive.microsoft.com/

Manage keys : Click here to manage keys

Commitment plans : Click here to view Commitment Tier Pricing options

Get Started | Monitoring

Get started with your resource in Speech Studio

Try out all use cases and see other custom tools for building Speech AI models

Go to Speech Studio

Keys and endpoint

These keys are used to access your Azure AI service API. Do not share your keys. Store them securely—for example, using Azure Key Vault. We also recommend regenerating these keys regularly. Only one key is necessary to make an API call. When regenerating the first key, you can use the second key for continued access to the service.

Show Keys

KEY 1

KEY 2

Location/Region : centralindia

Endpoint : https://centralindia.api.cognitive.microsoft.com/

Notifications

More events in the activity log → Dismiss all

Deployment succeeded Deployment 'Microsoft.CognitiveServicesSpeechServices-2024012512111' to resource group 'Tanish_RG' was successful.

Pin to dashboard Go to resource group a few seconds ago

Executed delete command on 1 selected items Succeeded: 1, Failed: 0, Canceled: 0. 4 minutes ago

- Go to Speech Studio

Tanishhhhh7 - Microsoft Azure | **Speech Studio** | **Cloud Computing Practical Sp1** | **31011121034_Tanish_Parab_Cloud**

Azure AI | Speech Studio

Speech Studio

Get started with Speech

Recent custom projects I've worked on

You don't have any recent projects yet. Start with one of the custom capabilities to create a new project. The list of recent projects you've worked on will then appear here.

Speech capabilities by scenario

Explore, try out, and view sample code for some of common use cases using Azure Speech Services features like speech to text and text to speech.

Captioning with speech to text
Convert the audio content of TV broadcast, webcast, film, video, live event or other productions into text to make your content more accessible to your audience.
[Try out captioning](#)

Post call transcription and analytics
Batch transcribe call center recordings and extract valuable information such as Personal Identifiable Information (PII), sentiment, and call summary.
[Try out post call transcription](#)

Live chat avatar
Engage in natural conversations with an avatar that recognizes users' speech input and responds fluently with realistic AI voice.
[Try out live chat avatar](#)

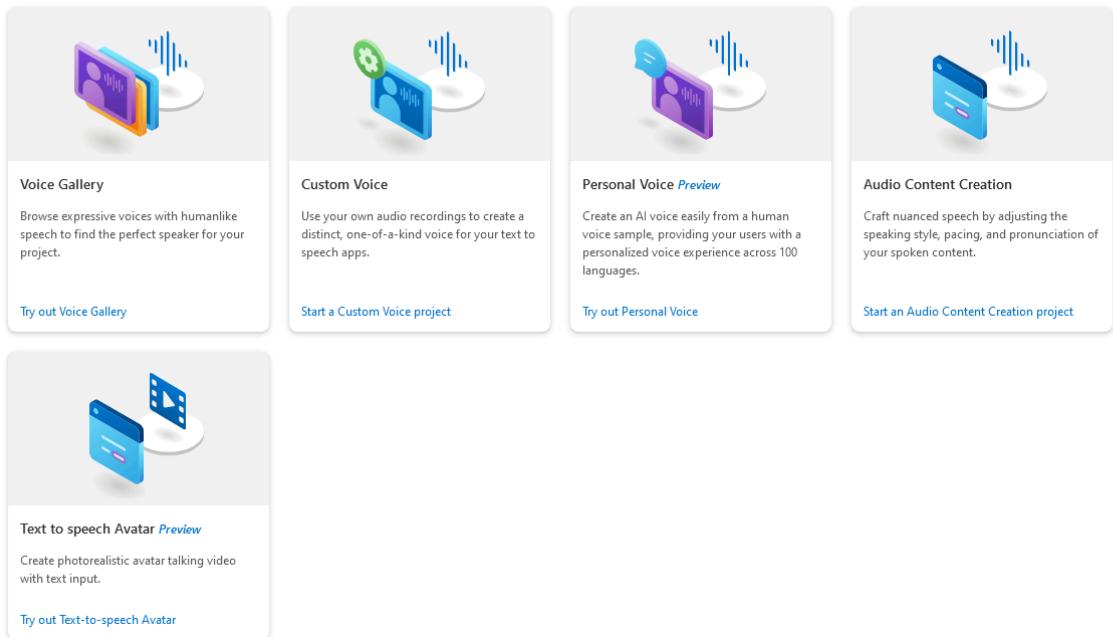
Speech to text

Quickly and accurately transcribe in more than 100 languages and dialects. Enhance the accuracy of your transcriptions by creating a custom speech model that can handle domain-specific terminology, background noise, and accents. [Learn more about speech to text](#)

- Click on Voice Gallery

Text to speech

Build apps and services that speak naturally with more than 400 voices across 140 languages and dialects. Create a customized voice to differentiate your brand and use various speaking styles to bring a sense of emotion to your spoken content. [Learn more about text to speech](#)



- Choose the voice you want

The screenshot shows the Microsoft Azure Speech Studio Voice Gallery interface:

- Voice catalog**: A grid of voice samples. The first row includes Nanami (Female, Japanese), Keita (Male, Japanese), and Aoi (Female, Japanese). The second row includes Daichi (Male, Japanese), Mayu (Female, Japanese), and Naoki (Male, Japanese). The third row includes Shiodi (Female, Japanese).
- Voice details**: A panel for Nanami, showing her gender (Female), language (Japanese (Japan)), and speaking styles: Default, Chat, Customer service, and Cheerful.
- Buttons**: View documentation, View sample code, Use SDK reference, Use REST API, Reset selection, Show only pinned, Total: 7 voices, Platforms (Cloud, Docker container), Try it out, Sample code.

- Set custom text of your own

Voice catalog Examples by use case

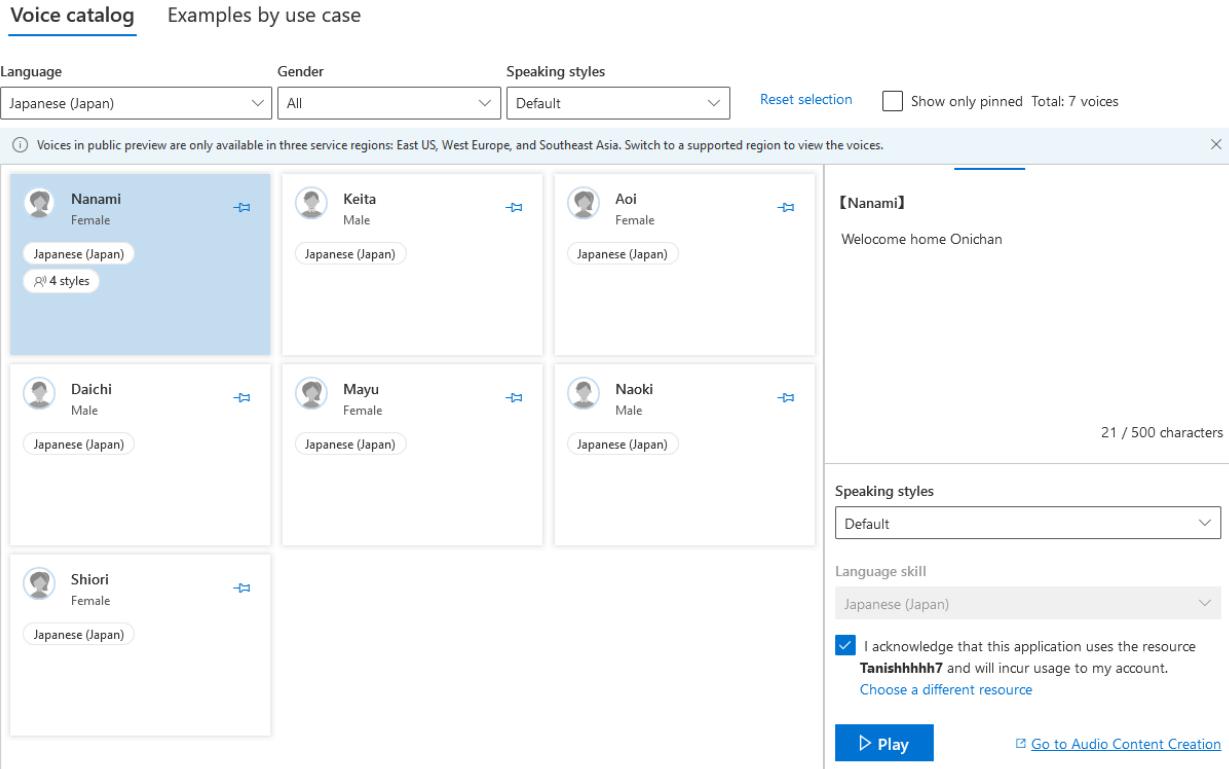
Language: Japanese (Japan) | Gender: All | Speaking styles: Default | Reset selection | Show only pinned Total: 7 voices

(i) Voices in public preview are only available in three service regions: East US, West Europe, and Southeast Asia. Switch to a supported region to view the voices. X

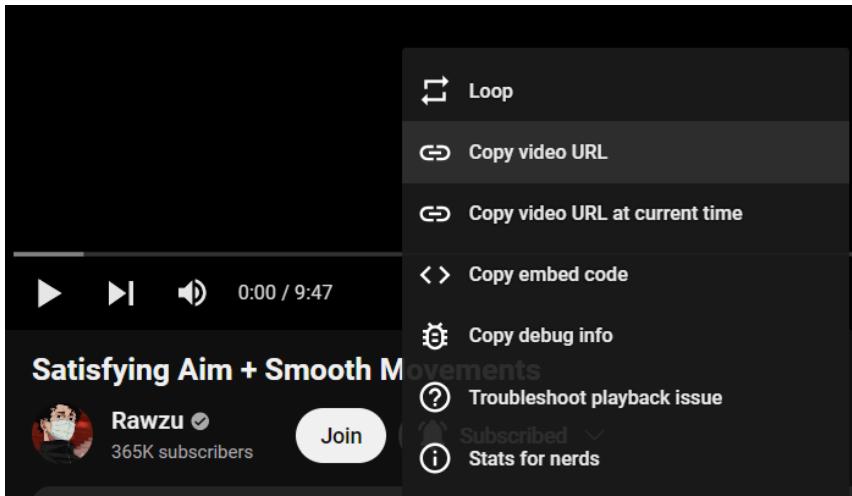
 Nanami Female Japanese (Japan) <small>4 styles</small>	 Keita Male Japanese (Japan)	 Aoi Female Japanese (Japan)	Nanami Welocome home Onichan <small>21 / 500 characters</small>	
 Daichi Male Japanese (Japan)	 Mayu Female Japanese (Japan)	 Naoki Male Japanese (Japan)	Speaking styles Default	
 Shiori Female Japanese (Japan)				Language skill Japanese (Japan)

I acknowledge that this application uses the resource [Tanishhhhh7](#) and will incur usage to my account.
[Choose a different resource](#)

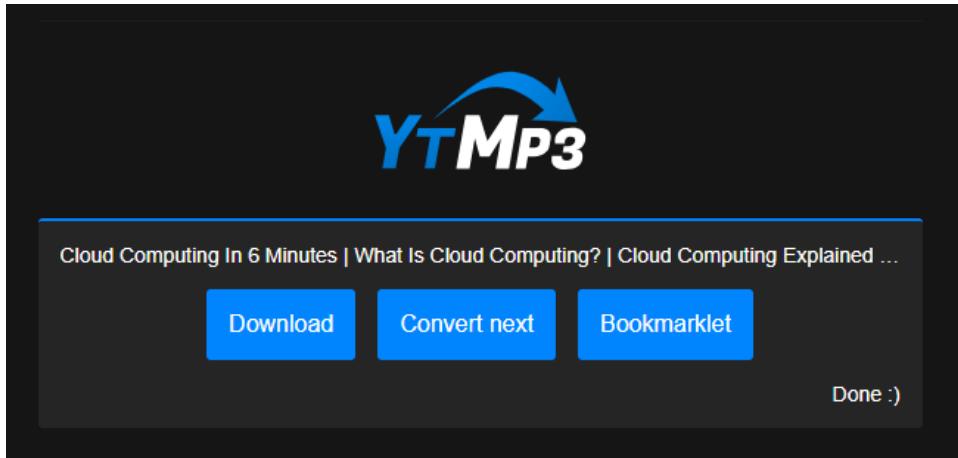
▶ Play [Go to Audio Content Creation](#)



- Go to “Youtube” and copy the link of any video



- Then go to “Youtube to MP3” and convert the video to MP4. Then download it.



- Navigate back to Speech Studio -> Captioning with speech to text
Then, upload the file downloaded

A screenshot of the Speech Studio interface. On the left, there's a section titled "Upload your own video files" featuring a cloud icon and a "Browse for a file" button. On the right, there's a section titled "Video files I've uploaded" showing a list with a checked checkbox, the file name "Cloud Computing In 6 Minutes What Is Cl...", a "Real-time" button, and a delete icon. There's also a "Clear all" button at the bottom of this list.

- The audio is converted from speech to text. You can change the mode, language and the number of lines that you want to be displayed.

- Under “Try it out”, click on “Try with your own video”

Speech Studio > Captioning

Captioning with speech to text

Use our sample application to learn how to use Azure Speech to automatically caption your content in real-time and offline by transcribing the audio of films, videos, live events, and more. Display the resulting text on a screen to provide an accessible experience. In this example, we leverage features like speech to text and phrase list.

Common use cases:

- Captioning for video content such as films, live television, sports matches
- Transcribing audio-only content like podcasts or phone conversations

[View documentation](#) [Get samples on GitHub](#)

Try it out Developer resources Next steps

Try it out

Choose a video clip to see captioning result.

Sample videos Try with your own video

Choose a sample video clip to see real-time or offline processed captioning result.



Real-time captioning

Create captions with stable partial results for real-time captioning usage, such as live broadcasting or streaming events.



Offline captioning

Use formatted final text results for existing videos, films or audio recordings prior to broadcasting.

Captioning with speech to text

X

Use our sample application to learn how to use Azure Speech to automatically caption your content in real-time and offline by transcribing the audio of films, videos, live events, and more. Display the resulting text on a screen to provide an accessible experience. In this example, we leverage features like speech to text and phrase list.

Common use cases:

- Captioning for video content such as films, live television, sports matches
- Transcribing audio-only content like podcasts or phone conversations

Technologies used
(Speech SDK)
Speech to text
Phrase list

[View documentation](#) [Get samples on GitHub](#)

Try it out Developer resources Next steps

Try it out

Choose a video clip to see captioning result.

Sample videos [Try with your own video](#)

I acknowledge that this application uses the resource speechrecognitionservice13 and will incur usage to my account. [Choose a different resource](#)

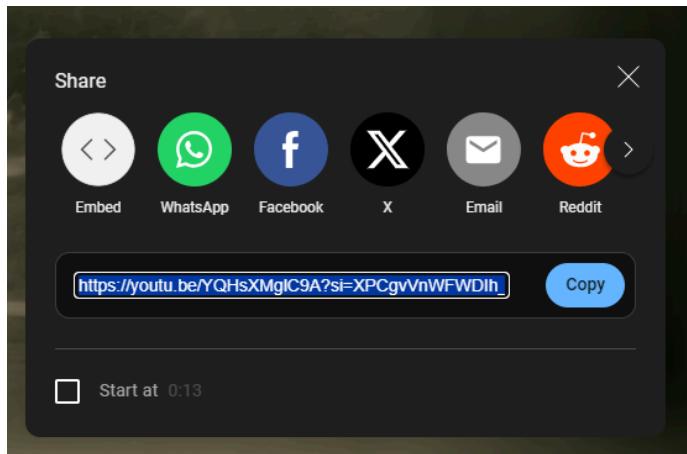
Upload your own video files

Video files I've uploaded

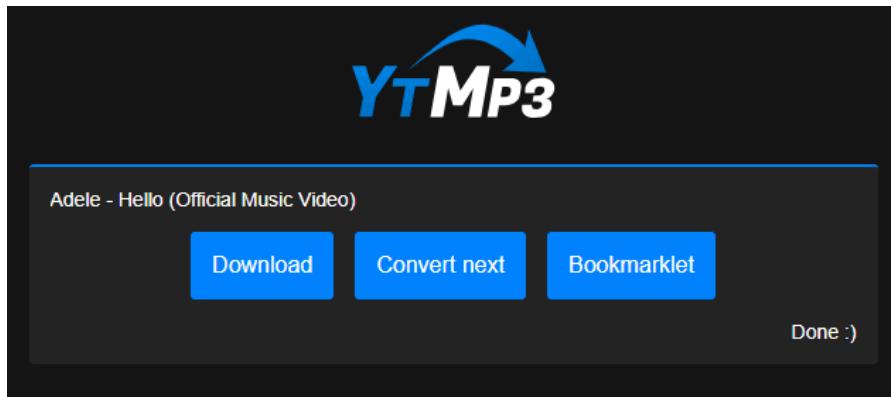


Part 3 : Converting an MP3 song into lyrics (text)

1. Go to “Youtube” and copy the link of any video



2. Then go to “Youtube to MP3” and convert the video to MP3. Then download it.



3. Navigate to the “Speech Studio”. Under “Speech to Text”, select “Real-time speech to text”

Speech to text

Quickly and accurately transcribe in more than 100 languages and dialects. Enhance the accuracy of your transcriptions by creating a custom speech model that can handle domain-specific terminology, background noise, and accents. [Learn more about speech to text](#)

The image shows four cards, each representing a different speech-to-text service:

- Real-time speech to text:** Quickly test live transcription capabilities on your own audio without writing any code. [Try out Real-time speech to text](#)
- Whisper Model in Azure OpenAI Service:** Quickly test live transcription capabilities on your own audio utilizing your Azure OpenAI resource and use prompts to improve the quality of the transcripts. [Try out Whisper Model in Azure OpenAI Service](#)
- Batch speech to text:** Quickly test batch transcription capabilities to transcribe a large amount of audio in storage and receive results asynchronously using Azure Speech models or OpenAI Whisper model. [Try out Batch speech to text](#)
- Custom Speech:** Add your own data and adapt to specific speaking styles, vocabulary, and more with a customized speech to text model. [Start a Custom Speech project](#)

4. Upload the audio file downloaded.

Choose audio files

The interface for choosing audio files is as follows:

- A central area with a cloud icon and the text "Drag and drop audio file(s) here or".
- A blue "Browse files..." button below the text.
- An icon of a microphone and the text "Or record audio with a microphone" at the bottom.

The audio is now converted into text

Choose audio files

Drag and drop audio file(s) here or [Browse files...](#)

Or record audio with a microphone

Test results

File name: Adele - Hello (Official Music Video).mp3 Language: English (United States) Output format: Detailed
Custom endpoint: [None] Phrase list: Off

00:00 06:06s ↓

Text JSON

I just got here and I think I'm losing signal already. Hello. Can you hear me now?

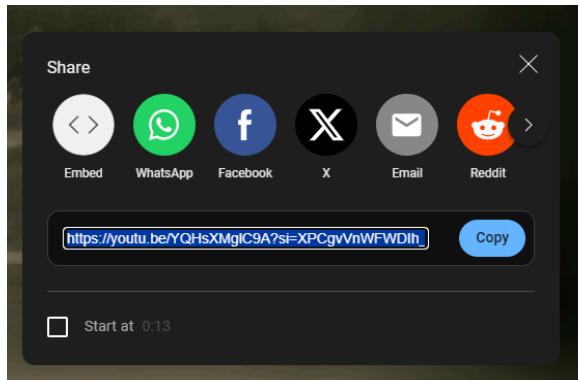
Audio files

Adele - Hello (Official Music Video).mp3

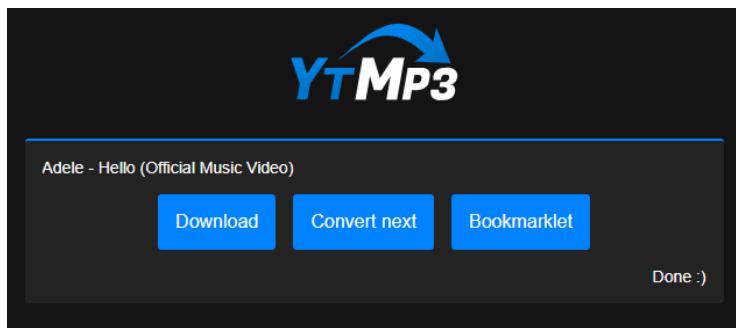
[Clear all](#)

Part 4 : Translating Youtube subtitles into another language

1. Go to “Youtube” and copy the link of any video



2. Then go to “Youtube to MP3” and convert the video to MP3. Then download it.



3. Navigate to the “Speech Studio”. Under “Speech to Text”, select “Speech Translation”

A screenshot of the Azure Speech Studio interface. It features a grid of cards for different speech-to-text services:

- Real-time speech to text:** Quickly test live transcription capabilities on your own audio without writing any code. (Try out Real-time speech to text)
- Whisper Model in Azure OpenAI Service:** Quickly test live transcription capabilities on your own audio utilizing your Azure OpenAI resource and use prompts to improve the quality of the transcripts. (Try out Whisper Model in Azure OpenAI Service)
- Batch speech to text:** Quickly test batch transcription capabilities to transcribe a large amount of audio in storage and receive results asynchronously using Azure Speech models or OpenAI Whisper model. (Try out Batch speech to text)
- Custom Speech:** Add your own data and adapt to specific speaking styles, vocabulary, and more with a customized speech to text model. (Start a Custom Speech project)
- Pronunciation Assessment with speech to text:** Get instant feedback on pronunciation accuracy and fluency by reading a script aloud. (Try out Pronunciation Assessment)
- Speech Translation:** Translate speech into other languages of your choice with low latency. (Try out Speech Translation)

4. Upload the audio file downloaded and change the target language to whichever language you want the text to be translated into.

Choose a spoken language Choose a target language

English (United States)

Hindi

Speak out translation Voice name: स्वरा (hi-IN-SwaraNeural)

Choose audio files


Drag and drop audio file(s) here or
[Browse files...](#)


Or record audio with a microphone

Test results

File name: --
Target language: --

 00:00

The audio is translated into the language you have chosen.

Choose a spoken language Choose a target language

English (United States)

Hindi

Speak out translation Voice name: स्वरा (hi-IN-SwaraNeural)

Choose audio files


Drag and drop audio file(s) here or
[Browse files...](#)


Or record audio with a microphone

Test results

File name: Adele - Hello (Official Music Video).mp3
Target language: Hindi

Language: English (United States)
Voice name: स्वरा (hi-IN-SwaraNeural)

 00:01 06:06s 

Translated text Original text JSON

मैं अभी यहाँ आया हूँ और मुझे लगता है कि मैं पहले से ही सिग्रेट खो रहा हूँ। नमस्कार। क्या आप मुझे अभी सुन सकते हैं? क्षमा करें। नमस्कार। यह मैं हूँ। मैं सोच रहा था कि क्या इन सभी वर्षों के बाद आप मुझे जाना चाहते हैं। तब। वे कहते हैं कि मैं आपको ठीक करने वाला हूँ। लेकिन मैंने बहुत उपचार नहीं किया है। नमस्कार। क्या आप मुझे सुन सकते हैं? मैं कैलिफोर्निया में सपना देख रहा हूँ कि हम कौन हुआ करते थे। जह छठ छोटे थे। और मूलतः मैं भूल गया कि दुनिया के सामने कैसा महसूस होता है। ऐसा अंतर है। के बीच। हम और एक लाख। काफी दूर। दूसरे से नरक। पक्ष मैंने इसे बुलाया होगा।

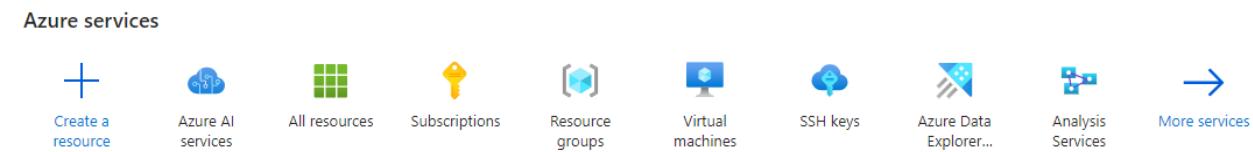
Audio files

Adele - Hello (Official Music Video).mp3 

[Clear all](#)

Part 5 : Computer Vision

1. Log into Azure ad click on “Azure AI Services”



2. Under Azure AI Services, click on “Create Computer Vision”

The image shows the 'Azure AI services' page. On the left, there is a sidebar with options like 'Overview', 'All Azure AI services', 'Azure AI services', 'Azure OpenAI', 'AI Search', 'Computer vision', 'Face API', and 'Custom vision'. The main area has a heading 'Build smarter apps and services' and three cards: 'Azure OpenAI account', 'AI Search', and 'Computer vision'. The 'Computer vision' card is highlighted with a blue border and contains the text 'Analyze content in images and videos.' and a 'Create' button.

3. Add a new resource group and enter the details of the resource. Choose the pricing tier as “Free F0(20 Calls per minute, 5K Calls per month)

The image shows the 'Create Computer Vision' wizard. It has several tabs: 'Basics' (selected), 'Network', 'Identity', 'Tags', and 'Review + create'. In the 'Basics' tab, there is a summary of the service's purpose: 'Boost content discoverability, accelerate text extraction, and create products that more people can use by embedding vision capabilities in your apps. Use visual data processing to label content (from objects to concepts), extract printed and handwritten text, recognize familiar subjects like brands and landmarks, and moderate content. No machine learning expertise is required.' Below this is a 'Learn more' link. The 'Project Details' section includes fields for 'Subscription' (set to 'Azure for Students') and 'Resource group' (set to 'analysisresource'). The 'Instance Details' section includes fields for 'Region' (set to 'East US'), 'Name' (set to 'ComputerVisionPract'), and 'Pricing tier' (set to 'Free F0 (20 Calls per minute, 5K Calls per month)'). There is also a 'View full pricing details' link. The 'Responsible AI Notice' section contains a detailed legal notice from Microsoft about the use of Biometric Data. At the bottom, there are 'Previous' and 'Next' buttons, and a prominent 'Review + create' button.

Review the information entered and then click on “Create”

Home > Azure AI services >
Create Computer Vision ...

Basics Network Identity Tags **Review + create**

View automation template

TERMS

By clicking "Create", I (a) agree to the legal terms and privacy statement(s) associated with the Marketplace offering(s) listed above; (b) authorize Microsoft to bill my current payment method for the fees associated with the offering(s), with the same billing frequency as my Azure subscription; and (c) agree that Microsoft may share my contact, usage and transactional information with the provider(s) of the offering(s) for support, billing and other transactional activities. Microsoft does not provide rights for third-party offerings. See the [Azure Marketplace Terms](#) for additional details.

Basics

Subscription	Azure for Students
Resource group	analysisresource
Region	East US
Name	ComputerVisionPract
Pricing tier	Free F0 (20 Calls per minute, 5K Calls per month)

Network

Type All networks, including the internet, can access this resource.

Identity

Identity type None

[Previous](#) [Next](#) **Create**

4. Once the deployment is complete, click on “Go to Resource”

Home >
Microsoft.CognitiveServicesComputerVision-20240208122401 | Overview ⌂ ⌂ ...

Deployment

Search Delete Cancel Redeploy Download Refresh

Overview **>Your deployment is complete**

Deployment name : Microsoft.CognitiveServicesComputerVision-20240208122401
Subscription : Azure for Students
Resource group : analysisresource

Start time : 2/8/2024, 12:24:46 PM
Correlation ID : 5626d365-3a41-4d8f-b3a0-237a5de4c57d

Deployment details
Next steps

Go to resource

Give feedback
Tell us about your experience with deployment

5. Under “Get Started”, click on “Go to Vision Studio”

Home > Microsoft.CognitiveServicesComputerVision-20240208122401 | Overview >

ComputerVisionPract Computer vision

Search Delete

Overview

Activity log

Access control (IAM)

Tags

Diagnose and solve problems

Resource Management

Keys and Endpoint

Encryption

Pricing tier

Networking

Identity

Cost analysis

Essentials

Resource group (move) : [analysisresource](#)

Status : Active

Location : East US

Subscription (move) : [Azure for Students](#)

Subscription ID : 9ae460b0-ea40-4d04-a8b1-fd15fd239164

Tags (edit) : [Add tags](#)

API Kind : ComputerVision

Pricing tier : Free

Endpoint : <https://computervisionpract.cognitiveservices.azure.com/>

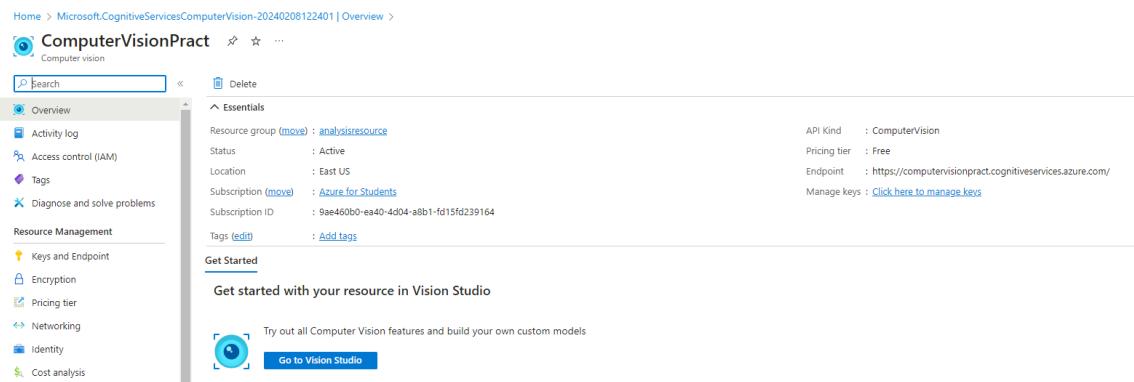
Manage keys : [Click here to manage keys](#)

Get Started

Get started with your resource in Vision Studio

Try out all Computer Vision features and build your own custom models

Go to Vision Studio



6. The Vision Studio opens up on a new page. Here, click on “Add captions to images”

A

Get started with Azure AI Vision

Give your apps the ability to read text, analyze images, and detect faces with technology like optical character recognition (OCR) and machine learning.



Featured Optical character recognition Spatial analysis Face Image analysis

Video Retrieval and Summary

Preview

Generate a brief summary of the main points shown in video. Locate specific keywords and jump to the relevant section.

Try it out

Recognize products on shelves

Preview

Identify products on shelves, gaps in product availability, and compliance for planograms.

Try it out

Customize models with images

Preview

Create custom image classification and object detection models with images using Vision Studio and Azure ML.

Start a project

Search photos with image retrieval

Preview

Retrieve specific moments within your photo album. For example, you can search for a wedding you attended last summer, your pet, or your favorite city.

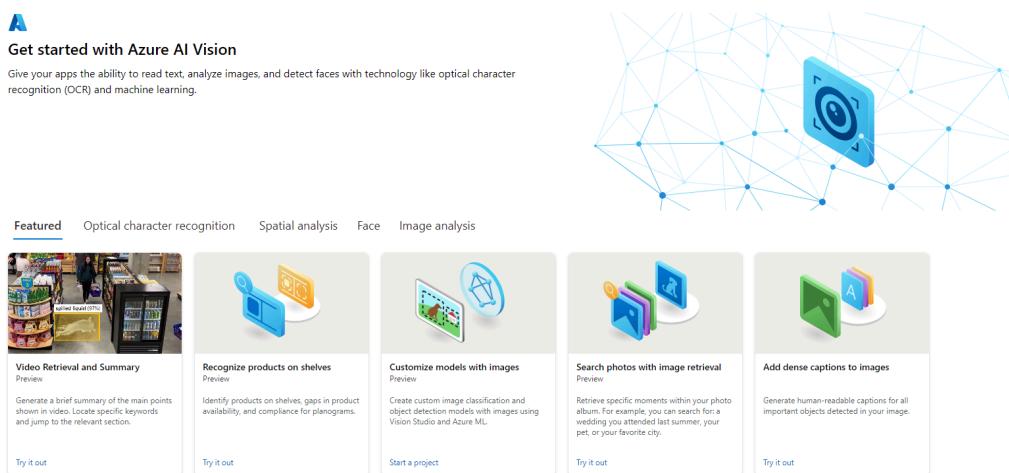
Try it out

Add dense captions to images

Preview

Generate human-readable captions for all important objects detected in your image.

Try it out



7. Here, select the image that you want to add captions to or upload your own image

Add captions to images

Generate a human-readable sentence that describes the content of an image.

Platforms Cloud

Try it out

To try out this feature, choose from a sample below, or upload your own image. To try out the model without limitations, sign in with Azure.

Drag and drop a file here
Browse for a file or Take a photo

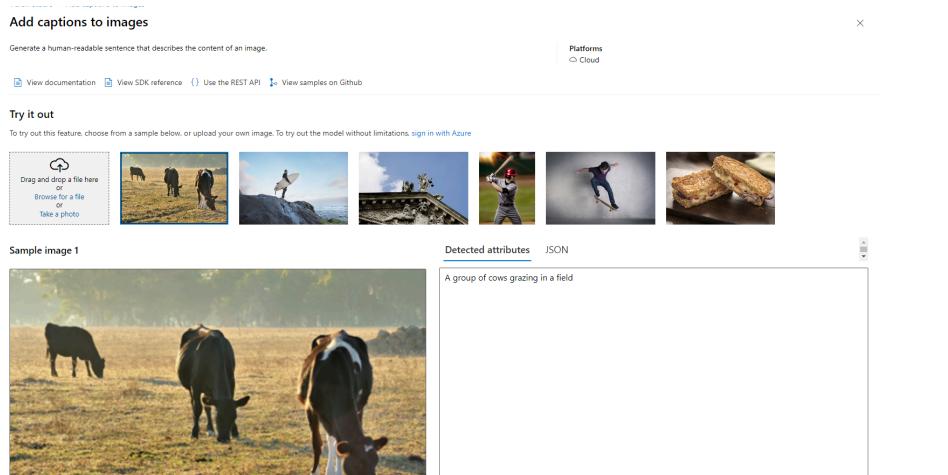


Sample image 1



Detected attributes JSON

A group of cows grazing in a field



8. Go back to the Vision Studio and now select “Extract common tags from images”. Here, you can drop your own file or use the pre-defined files and see the attributes that have been detected.

Azure AI | Vision Studio

Vision Studio > Extract common tags from images

Sample image 1

Drag and drop a file here
or
Browse for a file
or
Take a photo

Detected attributes JSON

Attribute	Percentage
clothing	(95.31%)
train station	(95.22%)
metro station	(95.07%)
train	(94.16%)
transport	(92.86%)
metro	(92.66%)
person	(92.33%)
platform	(91.76%)
footwear	(91.28%)
public transport	(89.98%)
transport hub	(88.05%)
railway	(87.70%)
passenger	(86.15%)
people	(76.47%)
subway	(72.38%)
track	(71.05%)
indoor	(65.18%)
waiting	(58.40%)

9. Go back to the Vision Studio and now select “Video Retrieval and Summary”. Click on “Industrial”.

Azure AI | Vision Studio

Vision Studio > Video summary and frame locator

Video Retrieval and Summary [PREVIEW](#)

Platforms [Cloud](#)

View documentation [Use the REST API](#)

Try it out

Choose a video clip to see the video retrieval and summary capabilities.
Note: videos that have been uploaded to Vision Studio will be stored in your account for 48 hours for this try out experience, after which they will be deleted automatically.

Drag and drop one or more files
or
Browse for files
or
Browse container for your videos

Sign in to upload your own video

Media

Highlighted from Microsoft Build 2023.

Video set

Industrial

Retail

The video is then analyzed and summarized.

Factory

Locate a frame in the video
Find a specific moment in the video based on a natural language search:

Search

Generic

Summarize

Results

"Person with a hardhat" appeared at:

- ▼ 04:57 (Datacenter)
- ▼ 05:10 (Datacenter)
- ▼ 00:33 (Factory)
- ▼ 04:36 (Datacenter)
- ▼ 00:26 (Warehouse)

Show more

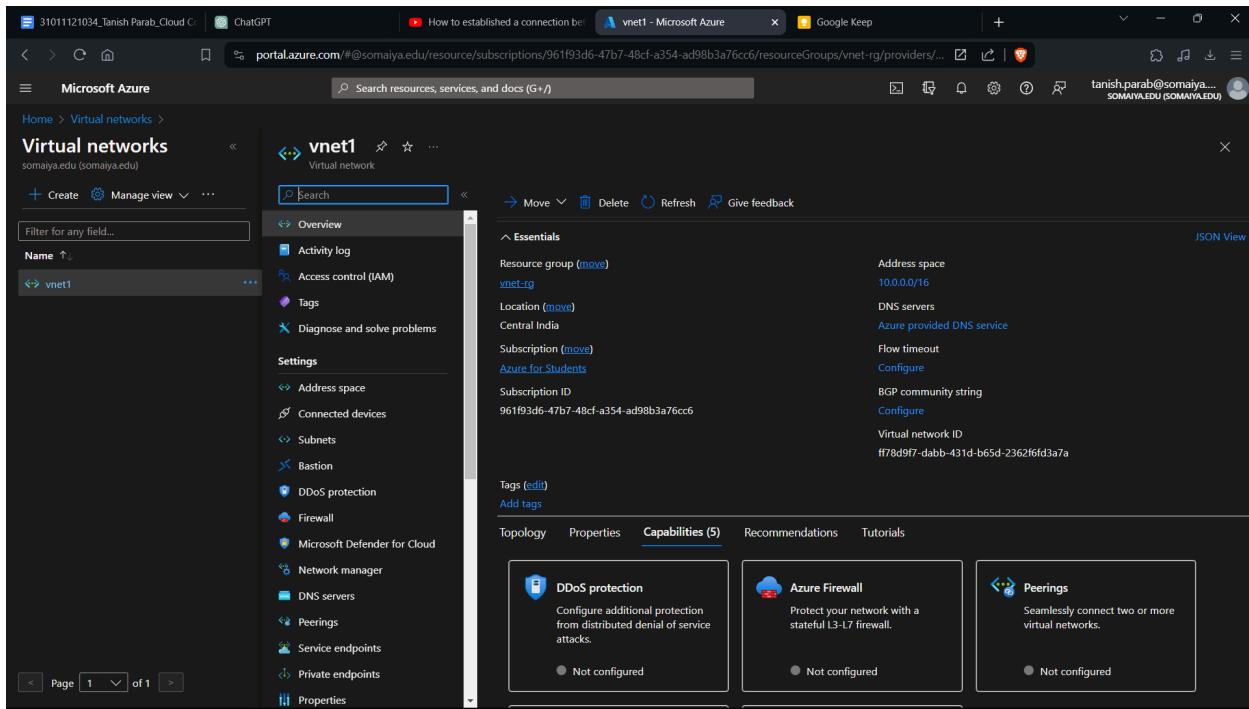
(Factory) Summary for "Generic":
The recently released video showcases the daily operations of a factory or machine shop, focusing on worker safety and efficient use of equipment. Here

Practical 08

Aim: Establishing connection between 1] Two vms, 2] One vm and Host computer

1] Establishing a connection between two virtual machines (VMs) in Azure

- Create a Virtual Network in Azure



The screenshot shows the Microsoft Azure portal interface for managing a virtual network named 'vnet1'. The left sidebar lists various settings such as Overview, Activity log, Access control (IAM), Tags, Diagnose and solve problems, and several connectivity options like Subnets, Connected devices, Bastion, DDoS protection, Firewall, Microsoft Defender for Cloud, Network manager, DNS servers, Peerings, Service endpoints, Private endpoints, and Properties. The main content area is titled 'vnet1' and shows the 'Overview' tab selected. The 'Essentials' section provides key information: Resource group (vnet-rg), Location (Central India), Subscription (Azure for Students), and Address space (10.0.0.0/16). Below this, there are sections for DNS servers, Flow timeout, BGP community string, and Virtual network ID. The 'Capabilities' tab is currently active, displaying three cards: 'DDoS protection' (status: Not configured), 'Azure Firewall' (status: Not configured), and 'Peering' (status: Not configured). The bottom of the page includes a navigation bar with links for Topology, Properties, Capabilities (5), Recommendations, and Tutorials.

- Create 2 Virtual machines on the same virtual network

The screenshot shows the Microsoft Azure portal interface. The left sidebar lists 'Virtual machines' with two items: 'vm1' and 'vm2'. The main content area is focused on 'vm1'. The top navigation bar includes tabs for 'Search resources, services, and docs (G+)', 'Connect', 'Start', 'Restart', 'Stop', 'Hibernate (preview)', 'Capture', 'Delete', 'Refresh', and 'Open in mobile'. A 'JSON View' button is located in the top right corner of the main content area. The 'Essentials' section displays details such as Resource group (tanih-rg), Status (Running), Location (Central India (Zone 1)), Subscription ID (961f93d6-47b7-48cf-a354-ad98b3a76cc6), Availability zone (1), and Tags. The 'Properties' tab is selected, showing the Virtual machine and Networking sections. The Virtual machine section lists Computer name (vm1), Operating system (Windows (Windows Server 2019 Datacenter)), Image publisher (MicrosoftWindowsServer), Image offer (WindowsServer), and Image plan (2019-datacenter-gensecond). The Networking section lists Public IP address (4.240.110.63), Private IP address (10.0.0.4), and Network interface (vm1404_x1).

This screenshot shows the Microsoft Azure portal interface, similar to the previous one but for virtual machine 'vm2'. The left sidebar shows 'vm1' and 'vm2'. The main content area is focused on 'vm2'. The 'Essentials' section shows the same basic information as 'vm1'. The 'Properties' tab is selected, showing the Virtual machine and Networking sections. The Virtual machine section lists Computer name (vm2), Operating system (Windows (Windows Server 2019 Datacenter)), Image publisher (MicrosoftWindowsServer), Image offer (WindowsServer), and Image plan (2019-datacenter-gensecond). The Networking section lists Public IP address (-), Private IP address (-), and Network interface (-).

- Download the native rdp file

vm2 | Connect Virtual machine

Search

Overview

Activity log

Access control (IAM)

Tags

Diagnose and solve problems

Connect

Connect

Bastion

Windows Admin Center

Networking

Network settings

Load balancing

Application security groups

Network manager

Settings

Disks

Extensions + applications

Configuration

Connecting using
Public IP address | 4.240.110.73

Admin username
tanish2

Port (change)
3389 Check access ⓘ

Just-in-time policy
Unsupported by plan ⓘ

Most common

Local machine

Native RDP

Connect via native RDP without any additional software needed. Recommended for testing only.

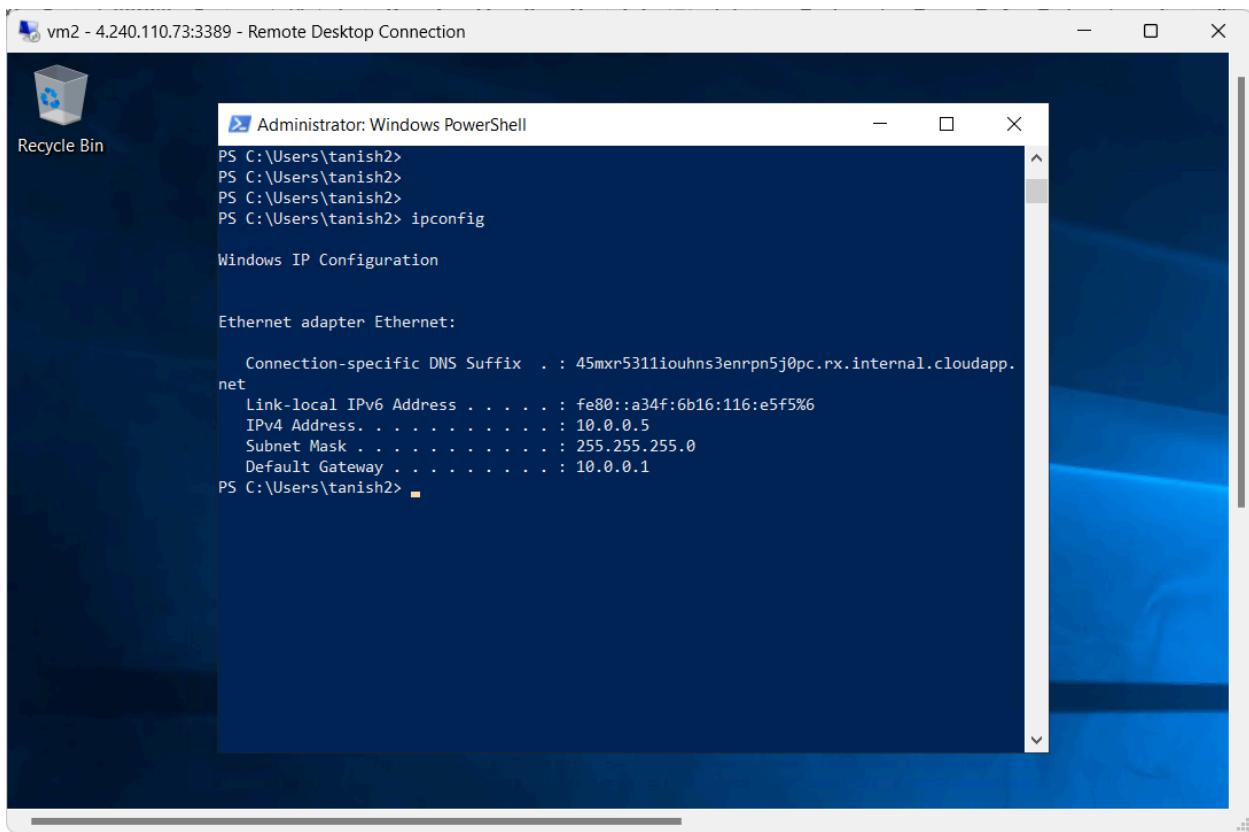
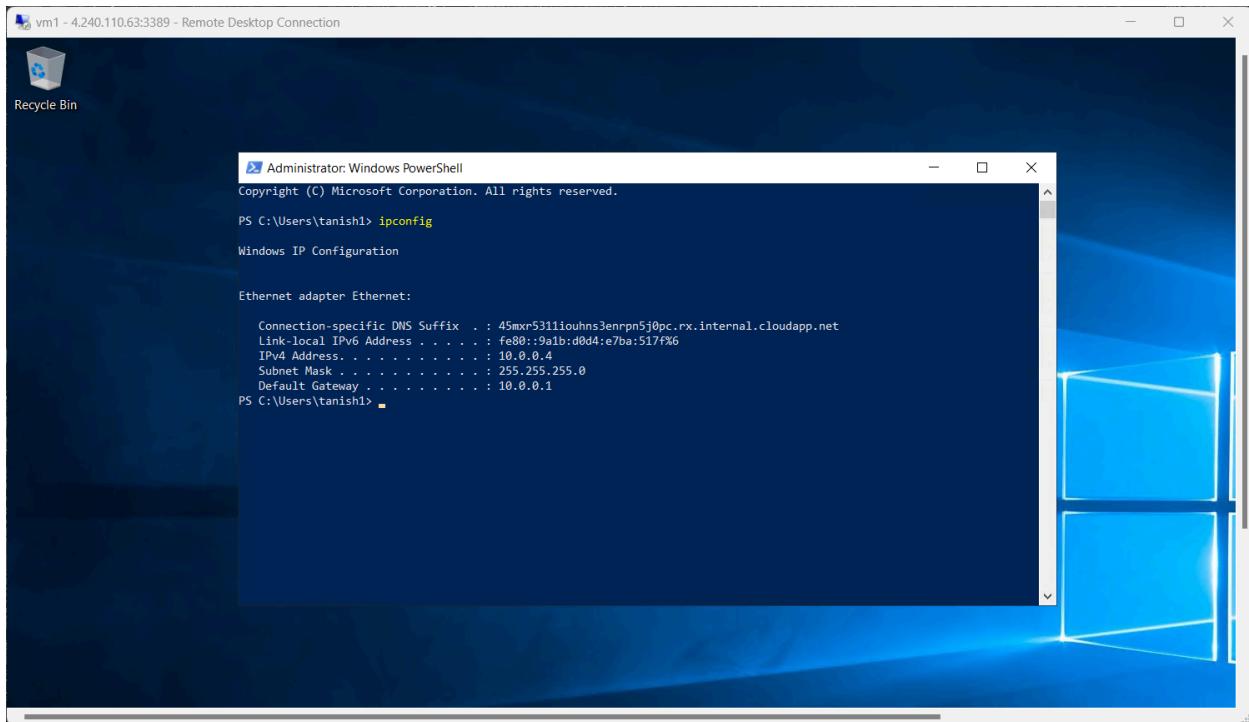
Public IP address (4.240.110.73)

Select Download RDP file

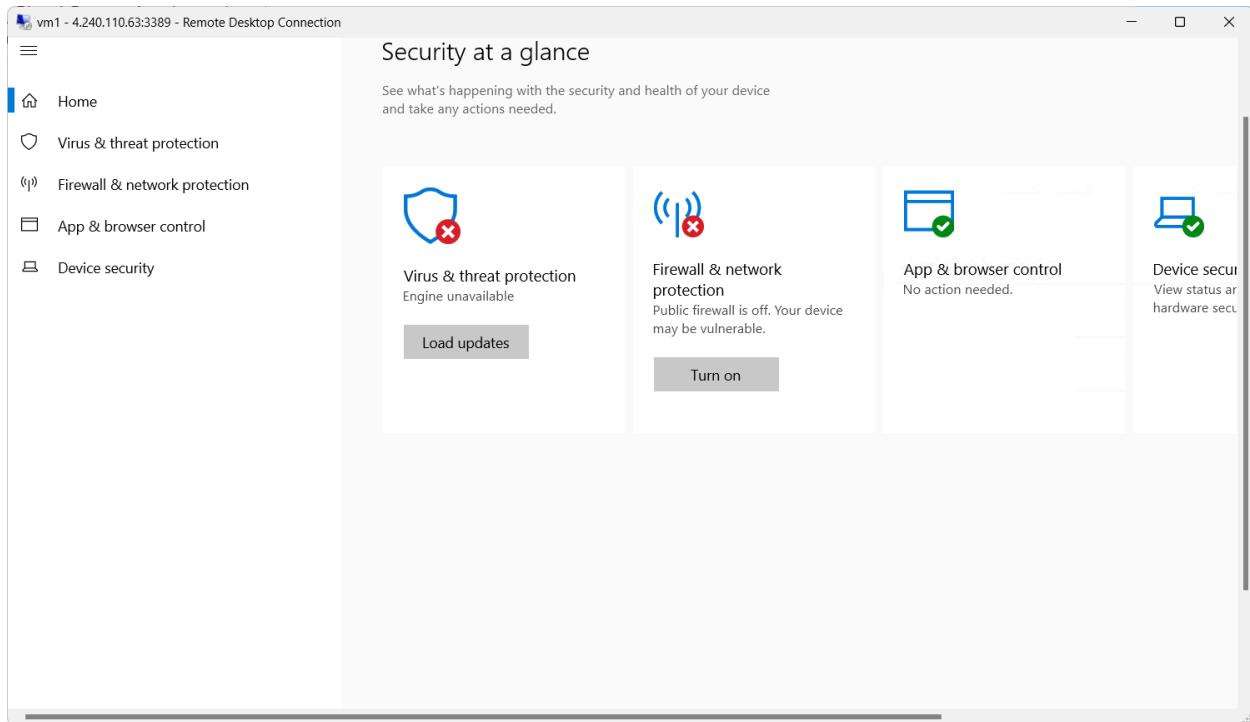
More ways to connect (4)

<https://resources.azure.com/961f93d6-47b7-48cf-a354-ad98b3a76cc6/resourceGroups/tanish-rg/providers/Microsoft.Compute/virtualMachines/vm2/connect>

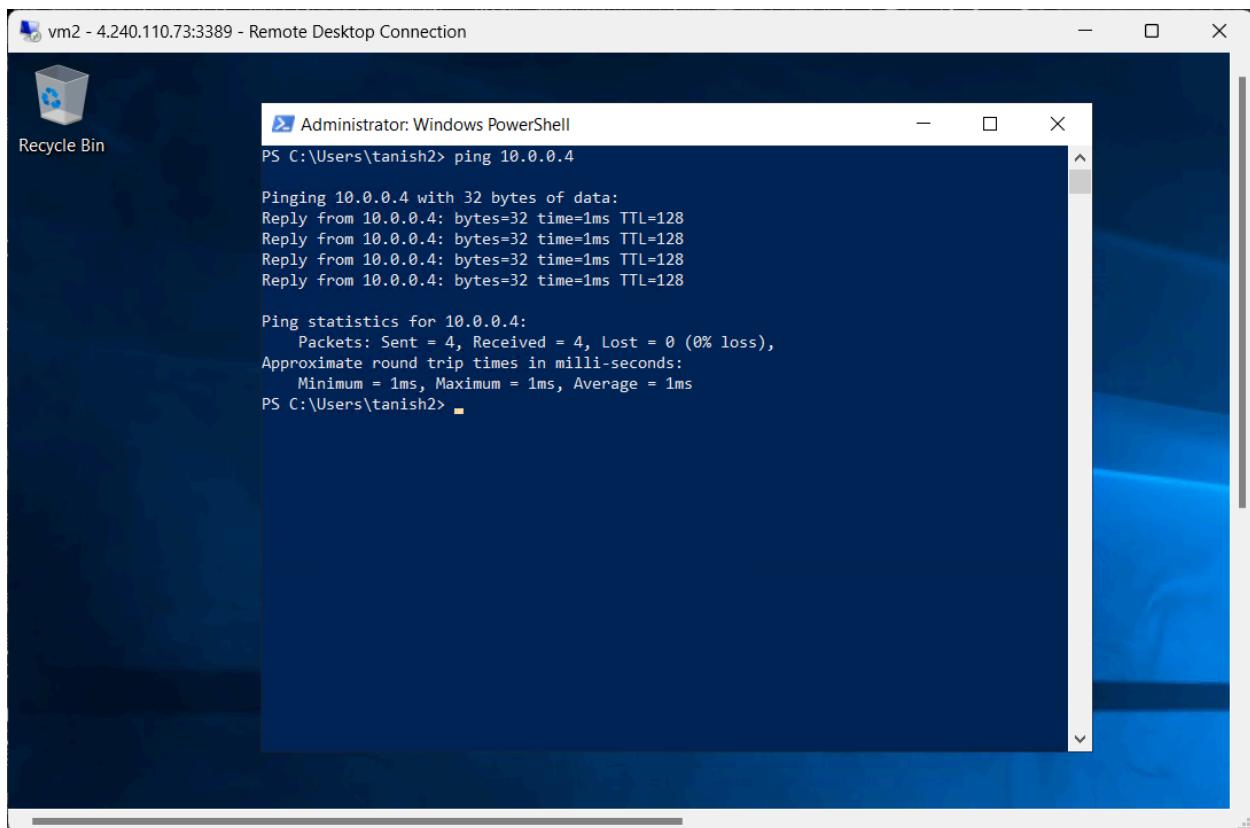
- Run the RDP file for both virtual machines



- Turn the Public network firewall off



- Ping from vm1 to vm2



2] 1vm and host computer

Practical 09

Aim: Web hosting

- Create a storage account

The screenshot shows the 'Create a storage account' wizard in the Microsoft Azure portal. The current step is 'Project details'. It asks for a subscription ('Azure for Students') and a resource group ('tanish-rg'). Below that, the 'Instance details' section is shown, where the storage account name is left blank, the region is set to '(Asia Pacific) East Asia', and the performance tier is set to 'Standard: Recommended for most scenarios (general-purpose v2 account)'. The redundancy option is set to 'Geo-redundant storage (GRS)'. At the bottom, there are 'Review' and 'Next : Advanced >' buttons.

tanishstorage - Microsoft Azure

[How to host a static website](#) | [Repository search results](#) | [My First Static Web Page](#) | [My First Static Web Page](#) | [Login Page](#) | [31011121034_Tanish_Parab_Cloud](#)

[Search resources, services, and docs \(G+\)](#)

tanishstorage Storage account

[Overview](#) [Upload](#) [Open in Explorer](#) [Delete](#) [Move](#) [Refresh](#) [Open in mobile](#) [CLI / PS](#) [Feedback](#)

Essentials

Resource group (move) : tanish-rg	Performance : Standard
Location : centralindia	Replication : Read-access geo-redundant storage (RA-GRS)
Primary/Secondary Location : Primary: Central India, Secondary: South India	Account kind : StorageV2 (general purpose v2)
Subscription (move) : Azure for Students	Provisioning state : Succeeded
Subscription ID : 961f93d6-47b7-48cf-a354-ad98b3a76cc6	Created : 29/2/2024, 11:33:43 am
Disk state : Primary: Available, Secondary: Available	

[Tags \(Edit\)](#) : [Add tags](#)

Properties [Monitoring](#) [Capabilities \(7\)](#) [Recommendations \(0\)](#) [Tutorials](#) [Tools + SDKs](#)

Blob service

Hierarchical namespace	Disabled
Default access tier	Hot
Blob anonymous access	Disabled
blob soft delete	Enabled (7 days)
Container soft delete	Enabled (7 days)
Versioning	Disabled
Change feed	Disabled
NFS v3	Disabled
Allow cross-tenant replication	Disabled
Storage tasks assignments	None

File service

Large file share	Disabled
Identity-based access	Not configured
Default share-level permissions	Disabled
Soft delete	Enabled (7 days)

Security

Require secure transfer for REST API operations	Enabled
Storage account key access	Enabled
Minimum TLS version	Version 1.2
Infrastructure encryption	Disabled

Networking

Allow access from	All networks
Number of private endpoint connections	0
Network routing	Microsoft network routing
Access for trusted Microsoft services	Yes
Endpoint type	Standard

Screenshot copied to clipboard and saved
Select here to mark up and share the image

- Goto static website and enter website details

tanishstorage - Microsoft Azure

[How to host a static website](#) | [Repository search results](#) | [My First Static Web Page](#) | [My First Static Web Page](#) | [Login Page](#) | [31011121034_Tanish_Parab_Cloud](#)

[Search resources, services, and docs \(G+\)](#)

tanishstorage | Static website Storage account

[Save](#) [Discard](#) [Give feedback](#)

Enabling static websites on the blob service allows you to host static content. Webpages may include static content and client-side scripts. Server-side scripting is not supported. As data is replicated asynchronously from primary to secondary regions, files at the secondary endpoint may not be immediately available or in sync with files at the primary endpoint. [Learn more](#)

Static website [Disabled](#) [Enabled](#)

An Azure Storage container has been created to host your static website. [Swb](#)

Primary endpoint <https://tanishstorage.z29.web.core.windows.net/>

Secondary endpoint <https://tanishstorage-secondary.z29.web.core.windows.net/>

Index document name [index.html](#)

Error document path [error.html](#)

Improving page load time of your static website by using the caching features of Azure Front Door (Additional costs apply). [Azure Front Door](#)

Settings

- Storage tasks (preview)
- Redundancy
- Data protection
- Object replication
- Blob inventory
- Static website**
- Lifecycle management
- Azure AI Search

Endpoints

Monitoring

- Insights
- Alerts
- Metrics
- Workbooks
- Diagnostic settings
- Logs

Monitoring (classic)

- Index.html

```

JavaScript
<!DOCTYPE html>
<html>
<head>
    <title>My First Static Web Page</title>
</head>
<body>
    <h1>Welcome to My Static Web Page!</h1>
    <p>This is a simple static web page that I have successfully
hosted.</p>
</body>
</html>

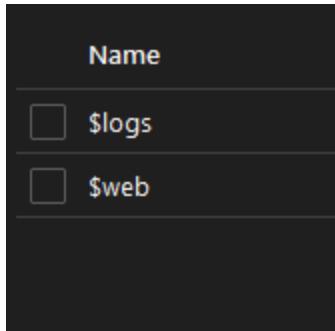
```

- Goto containers

The screenshot shows the Microsoft Azure Storage account interface for the 'tanishstorage' account. The left sidebar navigation bar is visible, with 'Containers' selected under 'Data storage'. The main content area displays the 'Containers' blade. At the top, there are buttons for '+ Container', 'Change access level', 'Restore containers', 'Refresh', 'Delete', and 'Give feedback'. Below this is a search bar labeled 'Search containers by prefix'. A table lists the existing containers:

Name	Last modified	Anonymous access level	Lease state
Logs	2/29/2024, 11:34:16 AM	Private	Available
Swb	2/29/2024, 11:36:37 AM	Private	Available

- Click on web



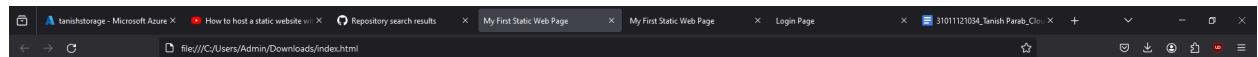
- Upload your index.html in container

A screenshot of the Microsoft Azure Storage Container blade. The '\$web' container is selected. A single blob named 'index.html' is listed in the table. The table columns include Name, Modified, Access tier, Archive status, Blob type, Size, and Lease state. The blob details are: Name: index.html, Modified: 2/29/2024, 11:37:35 AM, Access tier: Hot (Inferred), Archive status: Not yet archived, Blob type: Block blob, Size: 236.8, Lease state: Available.

- Open this link in browser

A screenshot of the Microsoft Azure Storage blade. It displays two endpoints: Primary endpoint and Secondary endpoint. The Primary endpoint is 'https://tanishstorage.z29.web.core.windows.net/' and the Secondary endpoint is 'https://tanishstorage-secondary.z29.web.core.windows.net/'. Both endpoints are enclosed in a light gray box.

- Your website



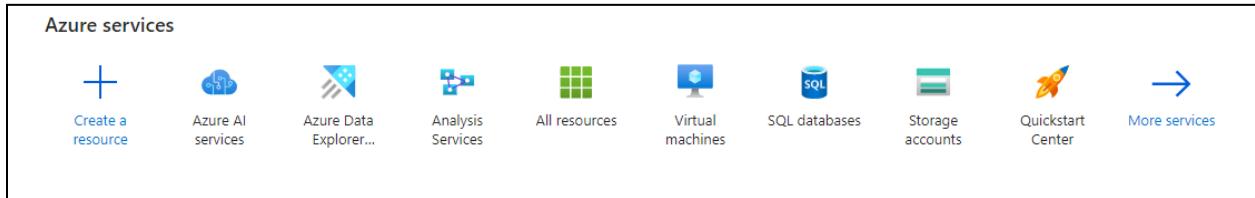
Welcome to My Static Web Page!

This is a simple static web page that I have successfully hosted.

Practical 10

AIM : Virtualization

1. Login to Azure and click on “Virtual Machine”



2. Create a virtual machine, namely VirtualMachine1

The screenshot shows the 'Create a virtual machine' wizard in the Microsoft Azure portal. The page title is 'Create a virtual machine ...'. A warning message at the top states: '⚠️ Changing Basic options may reset selections you have made. Review all options prior to creating the virtual machine.' Below this, a tab navigation bar has 'Basics' selected. The main content area starts with a general instruction: 'Create a virtual machine that runs Linux or Windows. Select an image from Azure marketplace or use your own customized image. Complete the Basics tab then Review + create to provision a virtual machine with default parameters or review each tab for full customization. [Learn more](#)'.

Project details:
Subscription: Azure for Students
Resource group: (New) VM
[Create new](#)

Instance details:
Virtual machine name: VirtualMachine1
Region: (US) East US
Availability options: Availability zone
Availability zone: Zones 1
💡 You can now select multiple zones. Selecting multiple zones will create one VM per zone. [Learn more](#)
Security type: Trusted launch virtual machines
[Configure security features](#)

At the bottom are buttons for 'Review + create' (highlighted in blue), '< Previous', and 'Next : Disks >'.

Choose “Windows” from the list and then enter the details for the username and password (Remember the password used). Then select the checkbox and click “Review and Create”

Create a virtual machine ...

⚠️ Changing Basic options may reset selections you have made. Review all options prior to creating the virtual machine.

To enable Hibernation, you must register your subscription. [Learn more](#) ⓘ

Administrator account

Username * ⓘ Carol ✓

Password * ⓘ ✓

Confirm password * ⓘ ✓

Inbound port rules

Select which virtual machine network ports are accessible from the public internet. You can specify more limited or granular network access on the Networking tab.

Public inbound ports * ⓘ None Allow selected ports

Select inbound ports * RDP (3389) ▾

Licensing

I confirm I have an eligible Windows 10/11 license with multi-tenant hosting rights. *

[Review multi-tenant hosting rights for Windows 10/11 compliance](#) ⓘ

Review + create < Previous Next : Disks >

Then click on “Create” and the virtual machine is deployed.

Basics Disks Networking Management Monitoring Advanced Tags **Review + create**

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

Price

1 X Standard B1s by Microsoft Subscription credits apply ⓘ **0.8836 INR/hr** [Pricing for other VM sizes](#)

[Terms of use](#) | [Privacy policy](#)

TERMS

By clicking "Create", I (a) agree to the legal terms and privacy statement(s) associated with the Marketplace offering(s) listed above; (b) authorize Microsoft to bill my current payment method for the fees associated with the offering(s), with the same billing frequency as my Azure subscription; and (c) agree that Microsoft may share my contact, usage and transactional information with the provider(s) of the offering(s) for support, billing and other transactional activities. Microsoft does not provide rights for third-party offerings. See the [Azure Marketplace Terms](#) for additional details.

⚠️ You have set RDP port(s) open to the internet. This is only recommended for testing. If you want to change this setting, go back to Basics tab.

Basics

Subscription Azure for Students
Resource group (new) VM
Virtual machine name VirtualMachine1
Region East US

Create [< Previous](#) [Next >](#) [Download a template for automation](#)

3. Once the deployment is complete, click on “Go to Resource”

✓ Deployment succeeded ×

Deployment 'CreateVm-MicrosoftWindowsDesktop.Windows-10-win10-20240208114041' to resource group 'VM' was successful.

Go to resource **Pin to dashboard**

a minute ago

4. Click on “Connect” in VirtualMachine1

VirtualMachine1

Virtual machine

Connect

Connect via Bastion

Resource group (move) : VM

Status : Running

Location : East US (Zone 1)

Subscription (move) : Azure for Students

Subscription ID : 9ae460b0-ea40-4d04-a8b1-fd15fd239164

Availability zone : 1

Tags (edit) : Add tags

5. In “Native RDP”, click on “Select”

VirtualMachine1 | Connect

Virtual machine

Connecting using
Public IP address | 20.84.116.221

Admin username : Carol

Port (change) : 3389 Check access ⓘ

Just-in-time policy : Unsupported by plan ⓘ

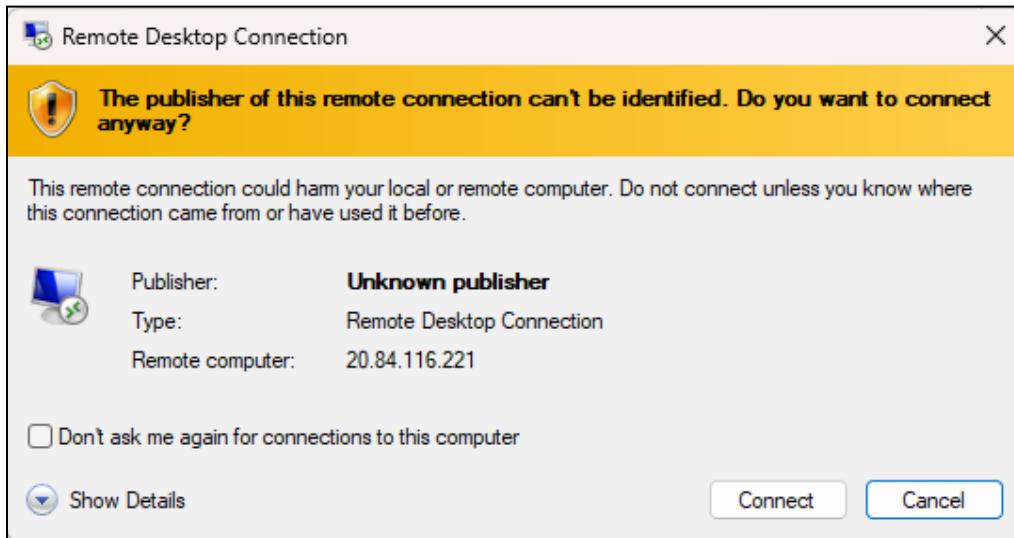
Native RDP

Connect via native RDP without any additional software needed. Recommended for testing only.

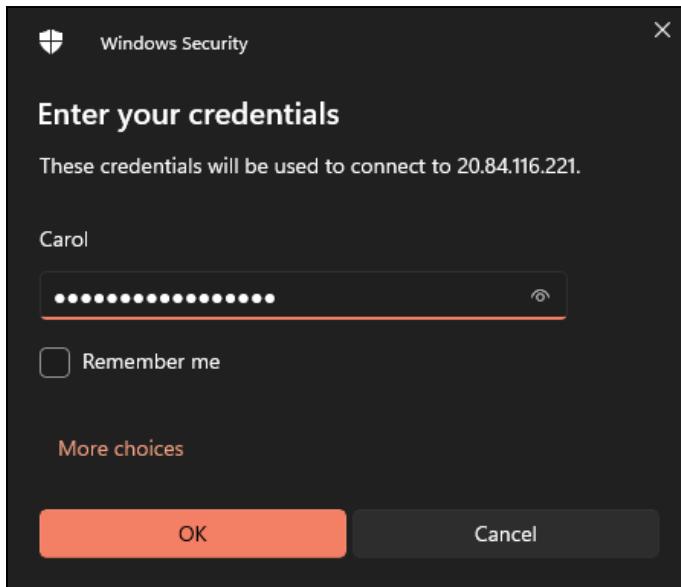
Public IP address (20.84.116.221)

Select Download RDP file

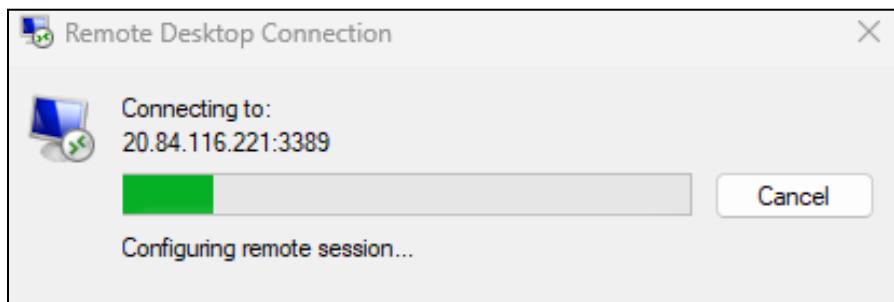
6. A pop up window will appear and click on “Connect”



7. Enter the credentials i.e. the username and password and then click “OK”



8. Then click on Yes to proceed for the connection.



9. Follow the same steps and create a second virtual machine.

Here, while creating the second virtual machine, go to the Networking tab and then make sure that the virtual network of the VM2 is the same as that of VM1.

The screenshot shows the 'Create a virtual machine' wizard in the Azure portal. The 'Basics' tab is selected. The page title is 'Create a virtual machine'. Below it, a sub-header says 'Create a virtual machine that runs Linux or Windows. Select an image from Azure marketplace or use your own customized image. Complete the Basics tab then Review + create to provision a virtual machine with default parameters or review each tab for full customization.' A note below states 'This subscription may not be eligible to deploy VMs of certain sizes in certain regions.' The 'Project details' section includes fields for 'Subscription' (set to 'Azure for Students') and 'Resource group' (set to 'VM'). The 'Instance details' section includes fields for 'Virtual machine name' (set to 'VirtualMachine2'), 'Region' (set to '(US) East US'), 'Availability options' (set to 'Availability zone'), 'Availability zone' (set to 'Zones 1'), and 'Security type' (set to 'Trusted launch virtual machines'). The 'Image' section shows 'Windows 10 Pro, version 22H2 - x64 Gen2' selected. At the bottom, there are buttons for 'Review + create', '< Previous', and 'Next : Disks >'.

Create a virtual machine ...

Basics Disks Networking Management Monitoring Advanced Tags Review + create

Define network connectivity for your virtual machine by configuring network interface card (NIC) settings. You can control ports, inbound and outbound connectivity with security group rules, or place behind an existing load balancing solution.

[Learn more ↗](#)

Network interface

When creating a virtual machine, a network interface will be created for you.

Virtual network *	<input type="text" value="VirtualMachine1-vnet"/> Create new
Subnet *	<input type="text" value="default (10.0.0.0/24)"/> Manage subnet configuration
Public IP	<input type="text" value="(new) VirtualMachine2-ip"/> Create new
NIC network security group	<input type="radio"/> None <input checked="" type="radio"/> Basic <input type="radio"/> Advanced
Public inbound ports *	<input type="radio"/> None <input checked="" type="radio"/> Allow selected ports
Select inbound ports *	<input type="text" value="RDP (3389)"/>

⚠️ This will allow all IP addresses to access your virtual machine. This is only recommended for testing. Use the Advanced controls in the Networking tab to create rules to limit inbound traffic to known IP addresses.

Delete public IP and NIC when VM is deleted

[Review + create](#) [< Previous](#) [Next : Management >](#)

Microsoft Azure

Home > Virtual machines >

Create a virtual machine ...

Validation passed

Resource group	VM
Virtual machine name	VirtualMachine2
Region	East US
Availability options	Availability zone
Availability zone	1
Security type	Trusted launch virtual machines
Enable secure boot	Yes
Enable TPM	Yes
Integrity monitoring	No
Image	Windows 10 Pro, version 22H2 - Gen2
VM architecture	x64
Size	Standard B1s (1 vcpu, 1 GiB memory)
Username	Carol
Public inbound ports	RDP
Already have a Windows license?	Yes
License type	Windows Client
Azure Spot	No

Disks

OS disk size	Image default
OS disk type	Premium SSD LRS
Use managed disks	Yes
Delete OS disk with VM	Enabled
Ephemeral OS disk	No

Networking

Virtual network	VirtualMachine1-vnet
-----------------	----------------------

[Create](#) [< Previous](#) [Next >](#) [Download a template for automation](#)

Home >

CreateVm-MicrosoftWindowsDesktop.Windows-10-win10-20240208115023 | Overview

Deployment

Search | Delete | Cancel | Redeploy | Download | Refresh

Overview

Your deployment is complete

Deployment name: CreateVm-MicrosoftWindowsDesktop.Windows... Start time: 2/8/2024, 11:55:04 AM
Subscription: Azure for Students Correlation ID: 6dab6854-9632-4a07-881e-64b850118458

Inputs

Outputs

Template

Deployment details

Next steps

Setup auto-shutdown Recommended
Monitor VM health, performance and network dependencies Recommended
Run a script inside the virtual machine Recommended

Go to resource | Create another VM

Give feedback | Tell us about your experience with deployment

This screenshot shows the 'Overview' page for a completed Azure deployment. The deployment name is 'CreateVm-MicrosoftWindowsDesktop.Windows-10-win10-20240208115023'. It provides basic information like the start time (2/8/2024, 11:55:04 AM), subscription (Azure for Students), and correlation ID (6dab6854-9632-4a07-881e-64b850118458). The page includes sections for 'Inputs', 'Outputs', and 'Template', and a summary of deployment details and next steps.

Microsoft Azure

Home > CreateVm-MicrosoftWindowsDesktop.Windows-10-win10-20240208115023

VirtualMachine2

Virtual machine

Search | Connect | Start

Overview

Activity log

Access control (IAM)

Tags

Connect

virtual m...

Connect via Bastion

Essentials

This screenshot shows the 'Virtual Machine' overview page for 'VirtualMachine2'. It displays basic information such as the name and type ('Virtual machine'). The 'Connect' button is highlighted, showing options like 'Connect' and 'Connect via Bastion'. The left sidebar lists other management options like 'Overview', 'Activity log', and 'Access control (IAM)'.

VirtualMachine2 | Connect

Virtual machine

Search | Refresh | Troubleshoot | More Options | Feedback

Connecting using Public IP address | 20.84.54.159

Admin username: Carol

Port (change): 3389 | Check access

Just-in-time policy: Unsupported by plan

Most common

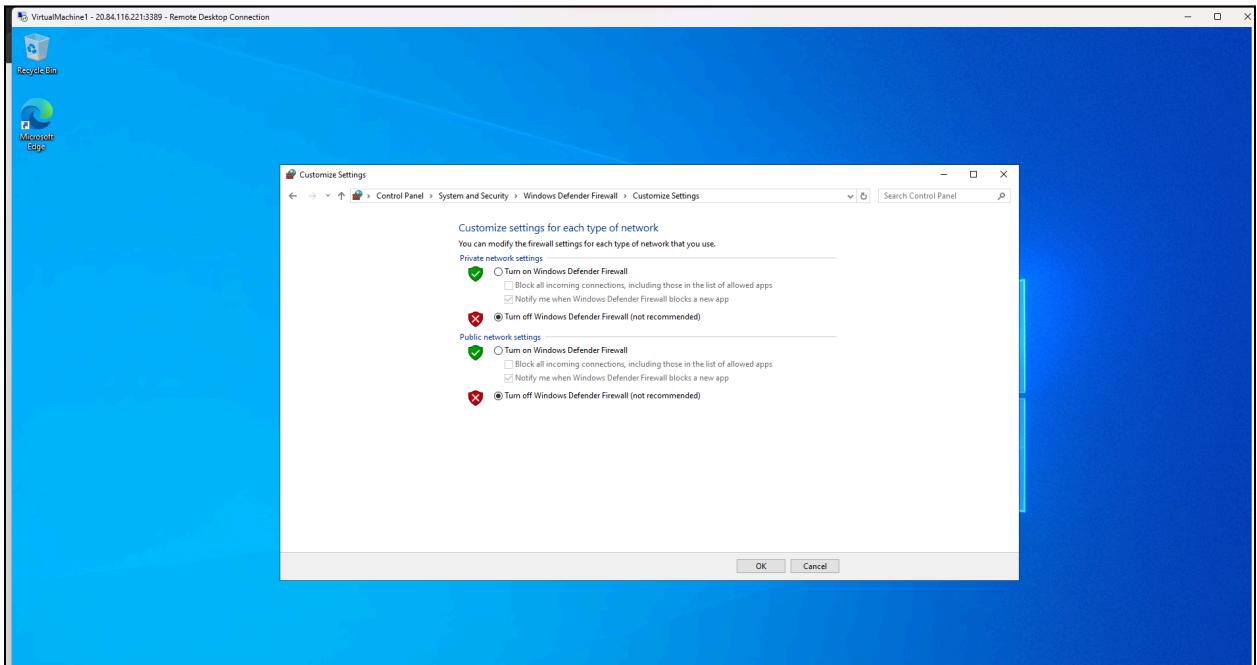
Native RDP | Local machine

Native RDP: Connect via native RDP without any additional software needed. Recommended for testing only.
Public IP address (20.84.54.159)

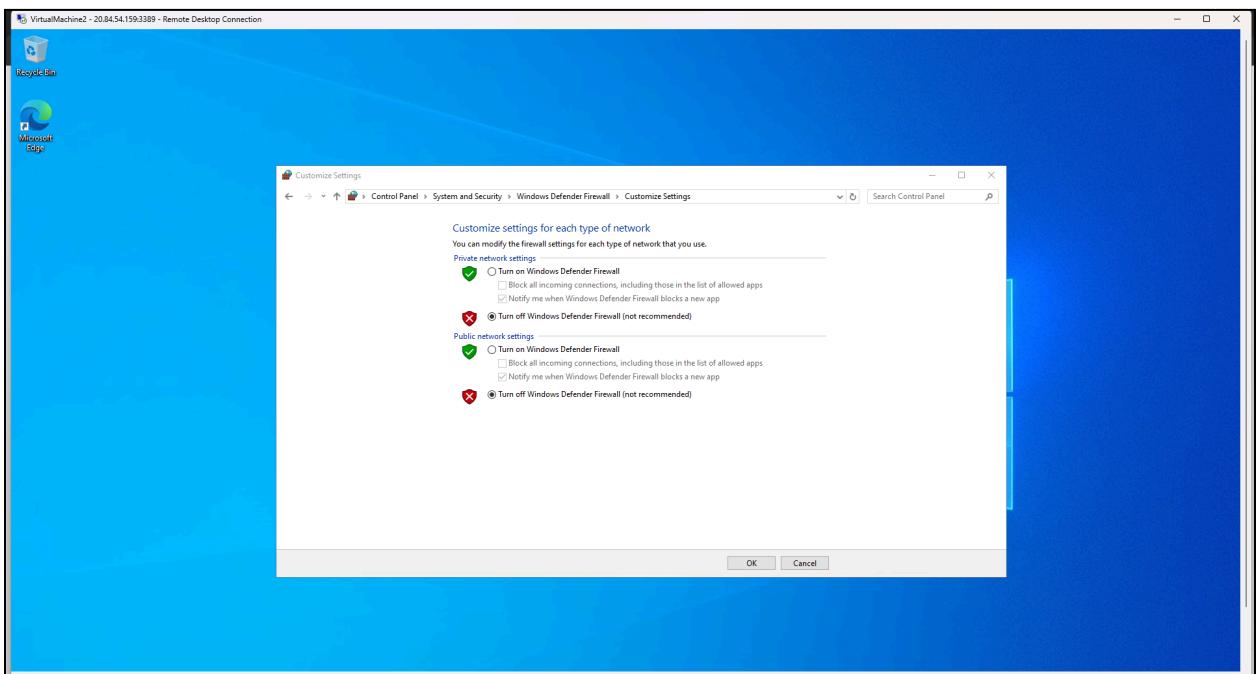
Select | Download RDP file |

This screenshot shows the 'Connect' blade for 'VirtualMachine2'. It displays the connection status ('Connecting using Public IP address | 20.84.54.159') and connection parameters ('Admin username: Carol', 'Port (change): 3389', 'Just-in-time policy: Unsupported by plan'). Below this, the 'Most common' section shows the 'Native RDP' option, which is described as 'Connect via native RDP without any additional software needed. Recommended for testing only.' A download link for the RDP file is also present.

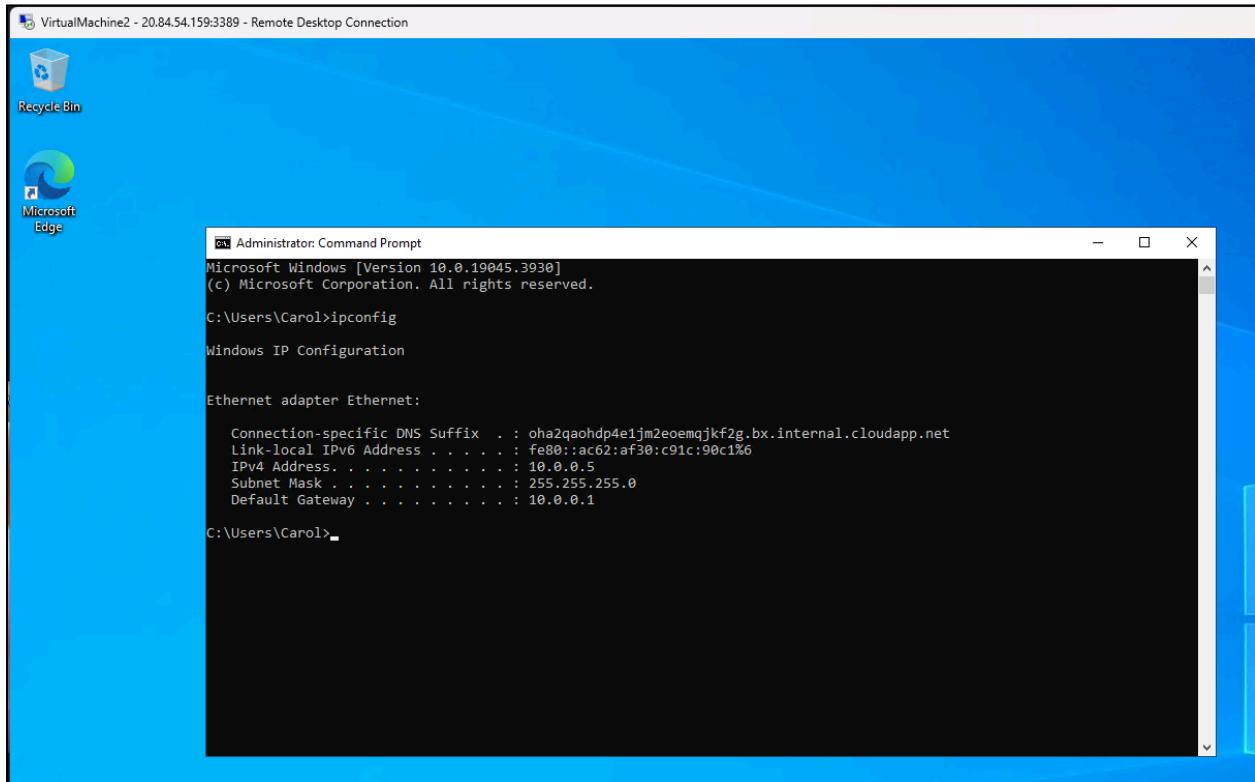
10. Now, VirtualMachine1 will be open. Go to the Firewall Customize Settings and turn it off.



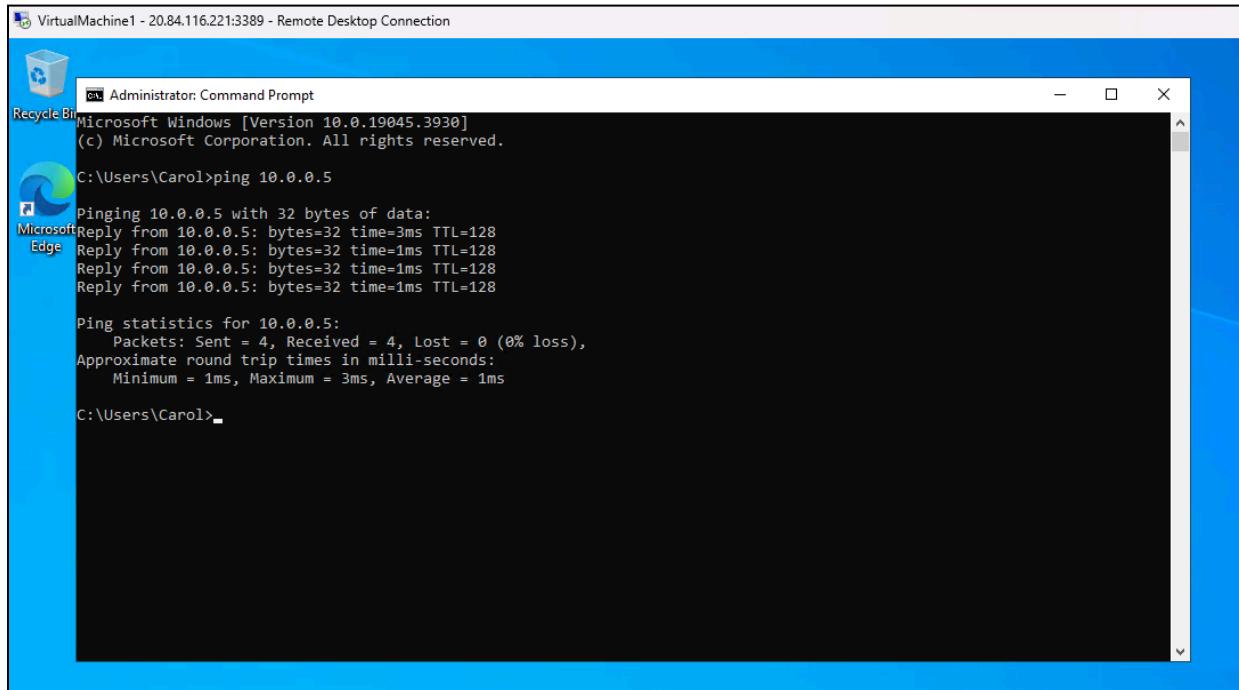
Do the same for VirtualMachine2 as well



11. In VirtualMachine2, go to the command prompt and type “ipconfig” in order get the IPv4 address



12. Go to VirtualMachine1 and ping the VirtualMachine2 using the ping command and the ip address of VirtualMachine2



```
VirtualMachine1 - 20.84.116.221:3389 - Remote Desktop Connection

Administrator: Command Prompt
Microsoft Windows [Version 10.0.19045.3930]
(c) Microsoft Corporation. All rights reserved.

C:\Users\Carol>ping 10.0.0.5

Pinging 10.0.0.5 with 32 bytes of data:
Reply from 10.0.0.5: bytes=32 time=3ms TTL=128
Reply from 10.0.0.5: bytes=32 time=1ms TTL=128
Reply from 10.0.0.5: bytes=32 time=1ms TTL=128
Reply from 10.0.0.5: bytes=32 time=1ms TTL=128

Ping statistics for 10.0.0.5:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 1ms, Maximum = 3ms, Average = 1ms

C:\Users\Carol>
```

Practical 11

AIM : Web Hosting

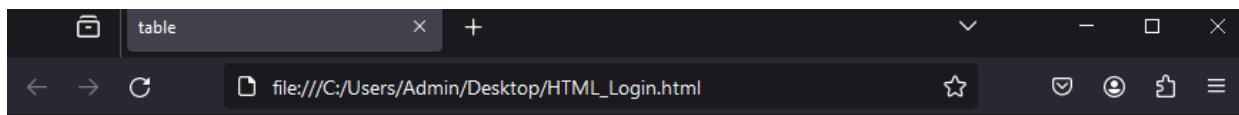
In Visual Studio :

1. Create a new HTML page with the following code :

```
<html>
<head>
<title> table </title></head>
<body>
<form>
<h1>HTML form</h1>
<table>
<tr>
<td>First name :</td>
<td><input type="text"></td>
</tr>
<tr>
<td>last name :</td>
<td><input type="text"></td>
</tr>
<tr>
<td>Date of birth :</td>
<td><input type="date"></td>
</tr>
<tr>
<td>Email id :</td>
<td><input type="email"></td>
</tr>
<tr>
<td>Mobile number :</td>
<td><input type="integer"></td>
</tr>
<tr>
<th><input type="submit" value=Submit>&nbsp &nbsp<input type="reset"
value=Reset></th>
```

```
</tr>
</table>
</form>
</body>
```

```
↳ HTML_Login.html ×
↳ HTML_Login.html > ⚒ html > ⚒ body
1   <html>
2   <head>
3   <title> table </title></head>
4   <body>
5   <form>
6   <h1>HTML form</h1>
7   <table>
8   <tr>
9   <td>First name :</td>
10  <td><input type="text"></td>
11  </tr>
12  <tr>
13  <td>last name :</td>
14  <td><input type="text"></td>
15  </tr>
16  <tr>
17  <td>Date of birth :</td>
18  <td><input type="date"></td>
19  </tr>
20  <tr>
21  <td>Email id :</td>
22  <td><input type="email"></td>
```



HTML form

First name :

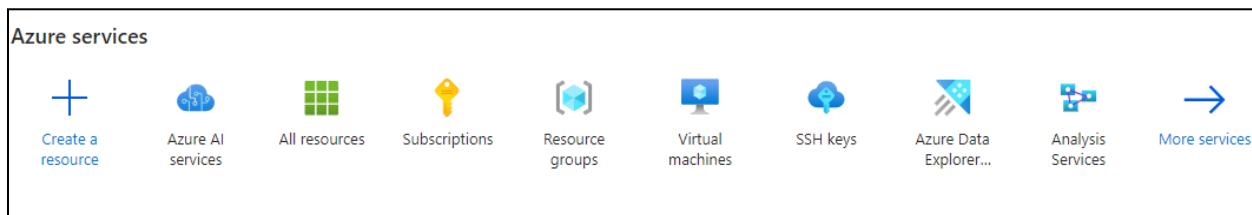
last name :

Date of birth : dd / mm / yyyy

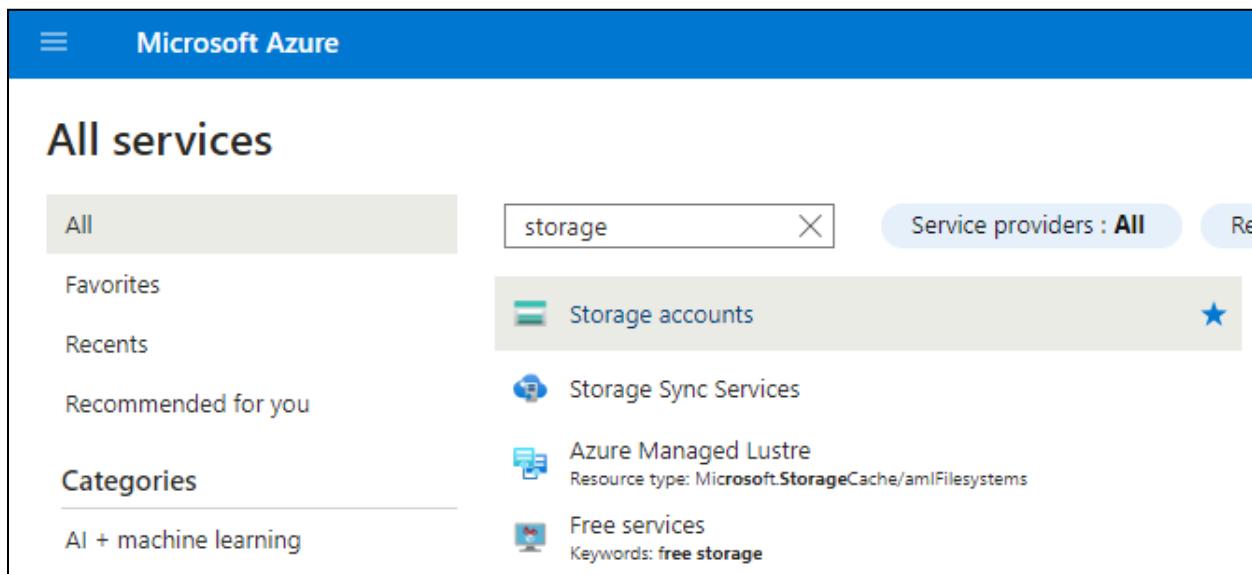
Email id :

Mobile number :

1. Login to Azure and then click on “More Services”



2. Search for Storage Account and click on it



3. Click on “Create Storage Account”

The screenshot shows the 'Storage accounts' page in the Azure portal. At the top, there are filter options: 'Subscription equals all', 'Resource group equals all', 'Location equals all', and a 'Create filter' button. Below the filters, it says 'Showing 0 to 0 of records.' There are sorting columns for 'Name', 'Type', 'Kind', 'Resource group', 'Location', and 'Subscription'. A large central message states 'No storage accounts to display' with a small icon of a storage unit. Below the message, there is a brief description of what a storage account is used for, followed by a 'Create storage account' button and a 'Learn more' link.

4. Enter the details of the storage account like the name, region. Then click on “Review”

The screenshot shows the 'Create a storage account' form on the 'Basics' tab. It includes sections for 'Project details' (Subscription: 'Azure for Students', Resource group: 'analysisresource') and 'Instance details' (Storage account name: 'htmlpage123', Region: '(US) East US', Performance: 'Standard: Recommended for most scenarios (general-purpose v2 account)', Redundancy: 'Geo-redundant storage (GRS)'). At the bottom, there are buttons for 'Review' and navigation links '< Previous' and 'Next : Advanced >'.

5. Then click on “Create” after verifying the details

Create a storage account ...

Basics Advanced Networking Data protection Encryption Tags Review

Basics

Subscription	Azure for Students
Resource Group	analysisresource
Location	eastus
Storage account name	htmlpage123
Deployment model	Resource manager
Performance	Standard
Replication	Read-access geo-redundant storage (RA-GRS)

Advanced

Enable hierarchical namespace	Disabled
Enable network file system v3	Disabled
Allow cross-tenant replication	Disabled
Access tier	Hot
Enable SFTP	Disabled
Large file shares	Disabled

Networking

Network connectivity	Public endpoint (all networks)
Default routing tier	Microsoft network routing
Endpoint type	Standard

Security

- - -

[Create](#) [< Previous](#) [Next >](#) [Download a template for automation](#)

6. Once the deployment has been completed, click on “Go to resource”

htmlpage123_1709187783617 | Overview ✎ ...

Deployment

Search

Delete Cancel Redeploy Download Refresh

Overview

Inputs

Outputs

Template

✓ Your deployment is complete

Deployment name: htmlpage123_1709187783617
Subscription: Azure for Students
Resource group: analysisresource

Start time: 2/29/2024, 11:53:06 AM
Correlation ID: 39ff0ccd-ab13-4a91-924a-48c30a4baae6

Deployment details

Next steps

[Go to resource](#)

7. Click on “Capabilities” and then click on “Static website”

The screenshot shows the Azure Storage account 'htmlpage123' settings page. The 'Capabilities' tab is selected, displaying four configuration cards:

- Static website**: Host static content on the blob service. Status: Loading...
- Data protection**: Save and recover data when it is erroneously modified or deleted. Status: Partially configured
- Security**: Enable Azure Defender for your storage account. Status: Not configured
- Private endpoints**: Secure data access over a private link. Status: Not configured

8. Then switch the “Disabled” toggle to “Enabled”

The screenshot shows the 'Static website' configuration page. The 'Enabled' toggle is set to 'Enabled'. A note below the toggle suggests improving page load time by using Azure Front Door.

Enabling static websites on the blob service allows you to host static content. Webpages may include static content and client-side scripts. Server-side scripting is not supported. As data is replicated asynchronously from primary to secondary regions, files at the secondary endpoint may not be immediately available or in sync with files at the primary endpoint. [Learn more](#)

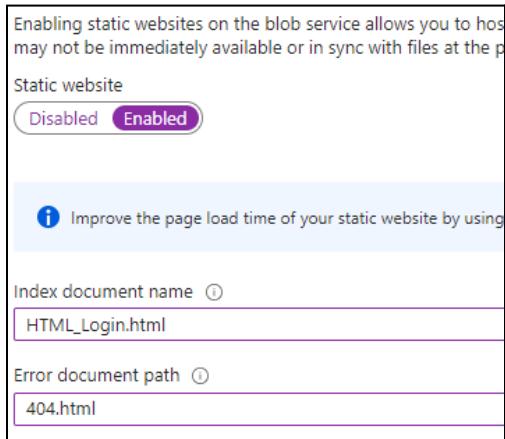
Static website
 Enabled Disabled

Improve the page load time of your static website by using the caching features of Azure Front Door (Additional costs apply). [Azure Front Door](#)

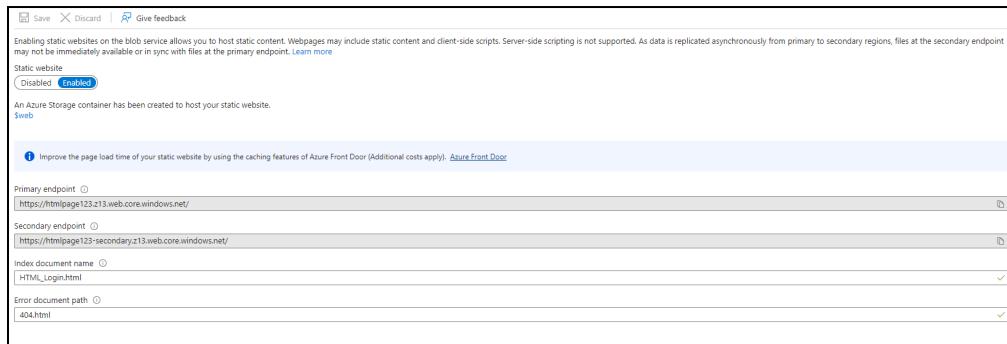
index document name:

Error document path:

9. Enter the name of the HTML document and the error document. The click on “Save”



The following screen shows the information



10. Go back to the storage account created and navigate to the “Configuration” tab. Then click “Enabled” in “Allow Blob anonymous access”

The screenshot shows the 'Configuration' tab of an Azure Storage account named 'htmlpage123'. On the left, there's a sidebar with various management options like Shared access signature, Encryption, Microsoft Defender for Cloud, Data management, Settings, and Configuration (which is highlighted). The main pane displays configuration settings. Under 'Allow Blob anonymous access', the 'Enabled' radio button is selected. Other settings shown include 'Secure transfer required' (Enabled), 'Allow storage account key access' (Enabled), and 'Default to Microsoft Entra authorization in the Azure portal' (Enabled).

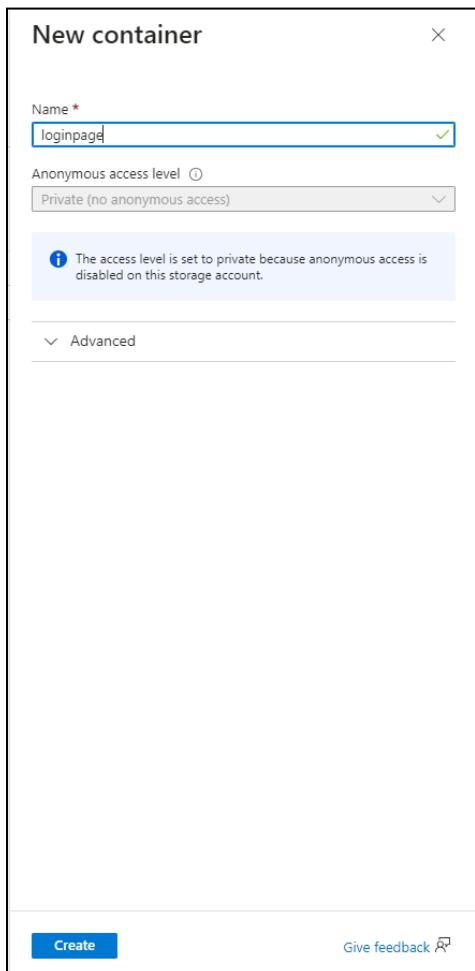
11. Then in the storage account, under Data Storage, click on “Containers”

This screenshot shows the 'Data storage' section of the Azure Storage account interface. It lists four main categories: 'Containers' (represented by a bar chart icon), 'File shares' (represented by a folder icon), 'Queues' (represented by a bar chart icon), and 'Tables' (represented by a grid icon). The 'Containers' option is likely the one intended for creating a new container.

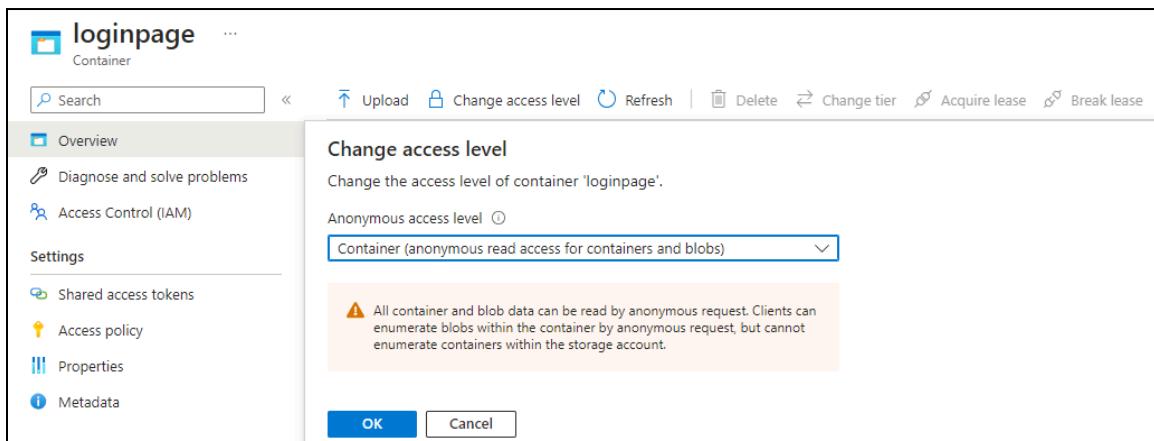
Add a new container by clicking on the + (plus) sign

This screenshot shows the 'Containers' blade. At the top, there's a '+ Container' button with a plus sign icon and a 'Change access level' button with a lock icon. Below that is a search bar with the placeholder text 'Search containers by prefix'. This is where a new container would be created.

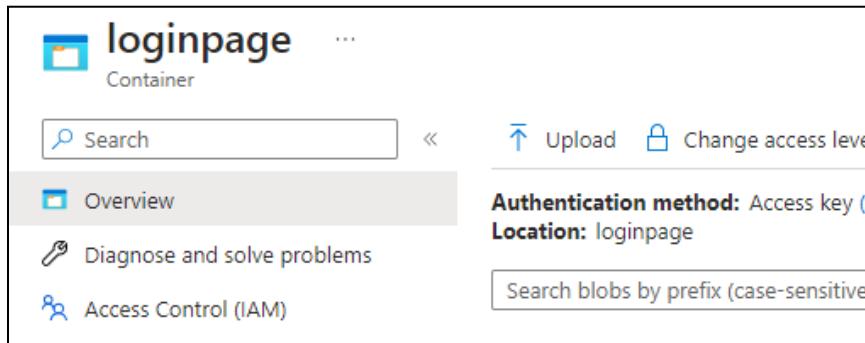
Enter the name of the container then click on Create



Now, change the access level to “Container(anonymous read access for containers and blobs)” and click on OK

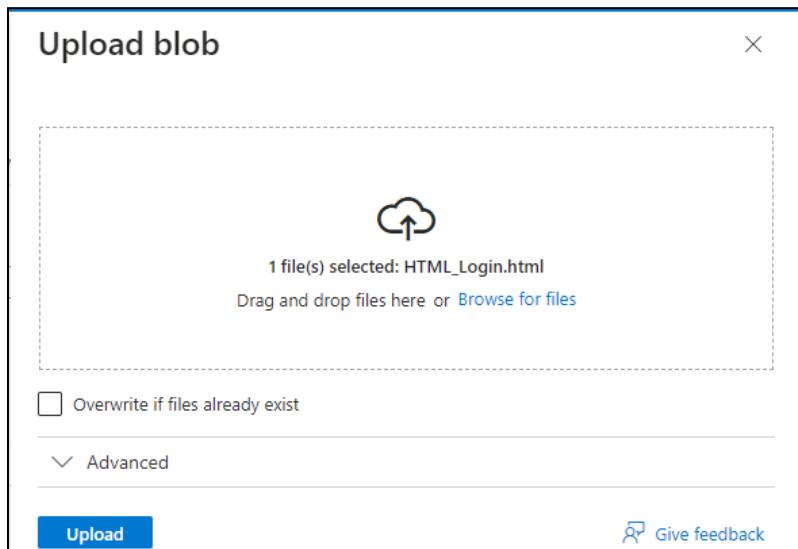


12. Click on “Upload”



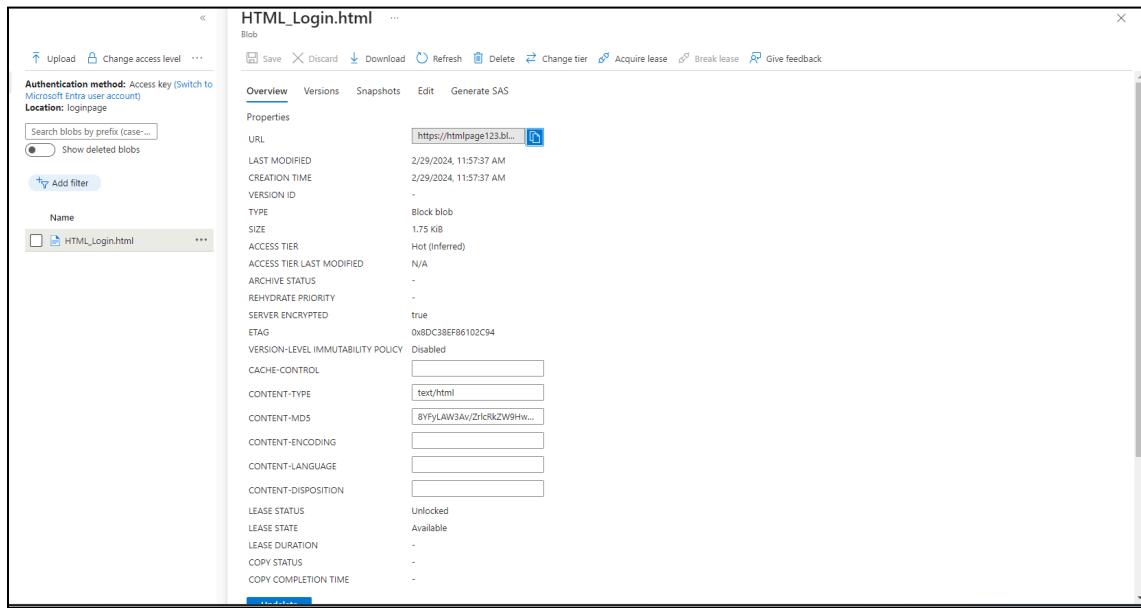
The screenshot shows the Azure Storage Explorer interface. At the top, there's a search bar with a magnifying glass icon and a dropdown menu. To the right of the search bar are 'Upload' and 'Change access level' buttons. Below the search bar, there are four navigation links: 'Overview' (which is highlighted in grey), 'Diagnose and solve problems', and 'Access Control (IAM)'. On the right side of the main area, it says 'Authentication method: Access key' and 'Location: loginpage'. At the bottom right, there's a search bar with the placeholder 'Search blobs by prefix (case-sensitive)'.

Select the HTML file and click on “Upload”



The screenshot shows the 'Upload blob' dialog box. At the top, it says 'Upload blob' and has a close button 'X'. In the center, there's a dashed rectangular area for dragging files, with a cloud icon containing an upward arrow. Below this, it says '1 file(s) selected: HTML_Login.html' and 'Drag and drop files here or [Browse for files](#)'. At the bottom left is a checkbox labeled 'Overwrite if files already exist'. Below that is a collapsed section labeled 'Advanced'. At the very bottom are two buttons: 'Upload' (in blue) and 'Give feedback'.

13. Click on the blob created and then copy the URL available :
https://htmlpage123.blob.core.windows.net/loginpage/HTML_Login.html



The screenshot shows the 'Properties' tab of the Azure Storage Blob Properties page for 'HTML_Login.html'. The URL field contains the value 'https://htmlpage123.blob.core.windows.net/loginpage/HTML_Login.html'. Other properties listed include Last Modified (2/29/2024, 11:57:37 AM), Creation Time (2/29/2024, 11:57:37 AM), Type (Block blob), Size (1.75 KB), Access Tier (Hot (inferred)), and Server Encrypted (true). The URL field has a copy icon next to it.

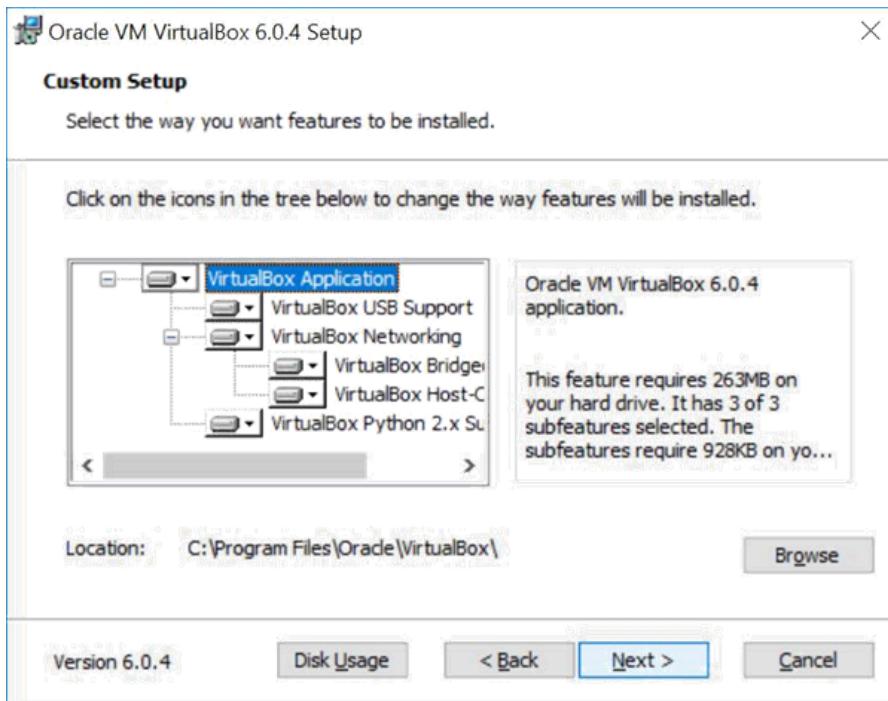
Paste the URL in the browser and the web page is now hosted.

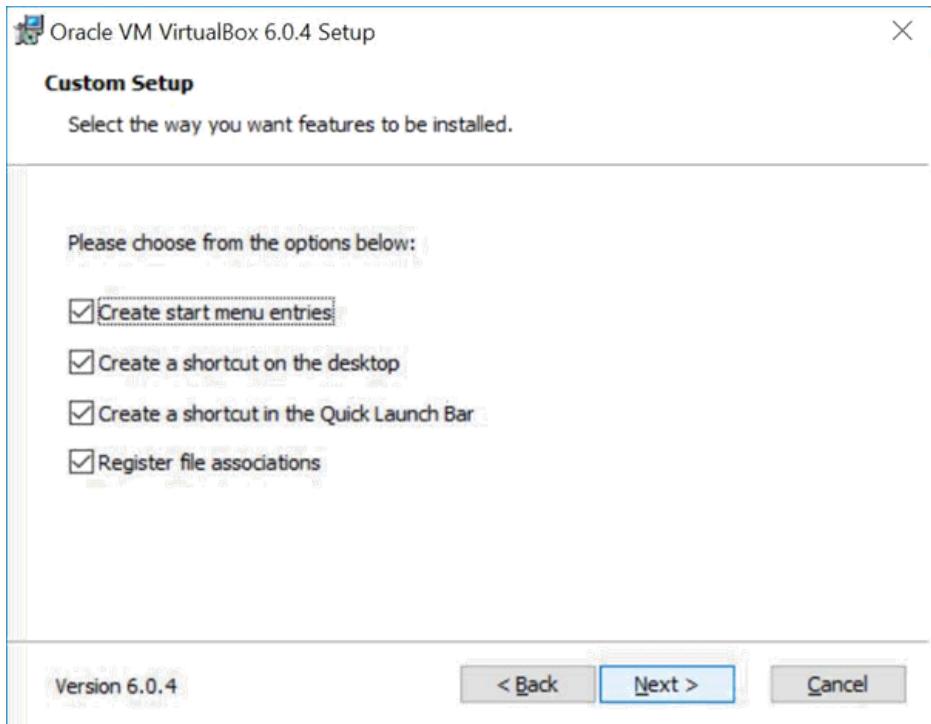


The screenshot shows a web browser window displaying the URL 'https://htmlpage123.blob.core.windows.net/loginpage/HTML_Login.html'. The page content is an 'HTML form' with fields for First name, last name, Date of birth (with a date picker icon), Email id, and Mobile number. There are 'Submit' and 'Reset' buttons at the bottom.

Practical 12

Aim: Kali Linux installation in virtualbox







Oracle VM VirtualBox 6.0.4 Setup



Ready to Install

The Setup Wizard is ready to begin the Custom installation.

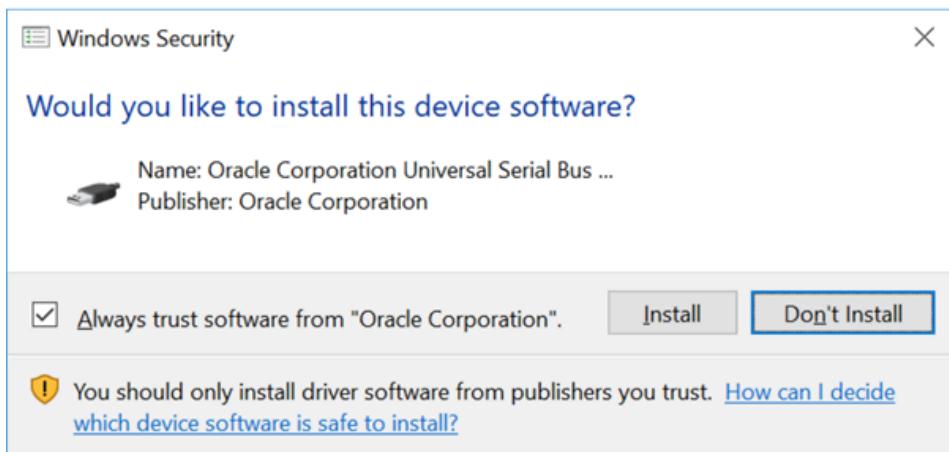
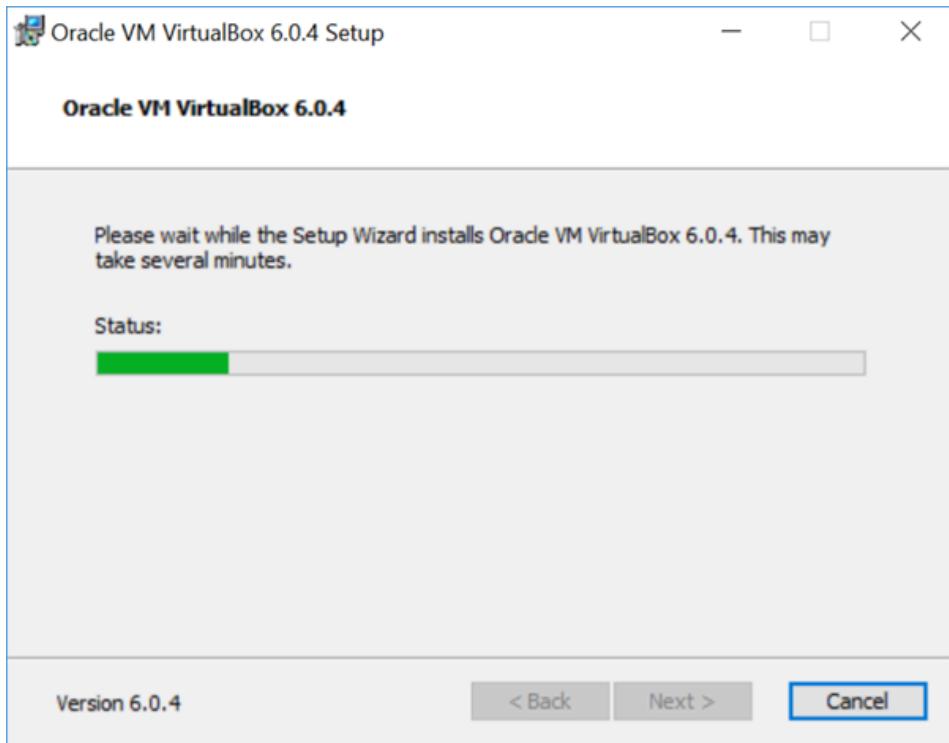
Click **Install** to begin the installation. If you want to review or change any of your installation settings, click **Back**. Click **Cancel** to exit the wizard.

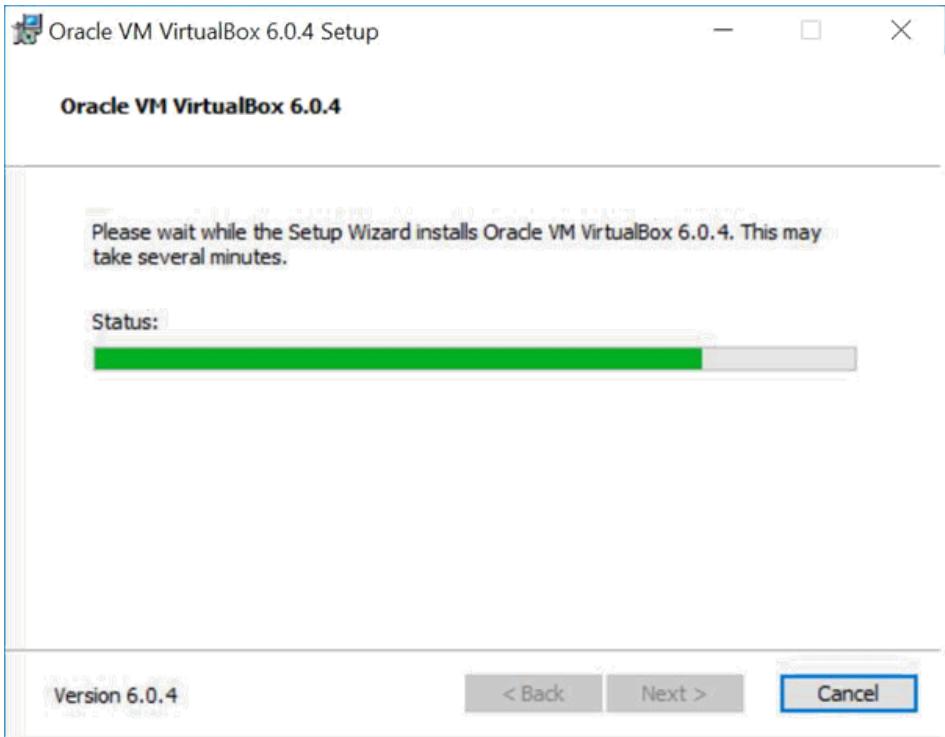
Version 6.0.4

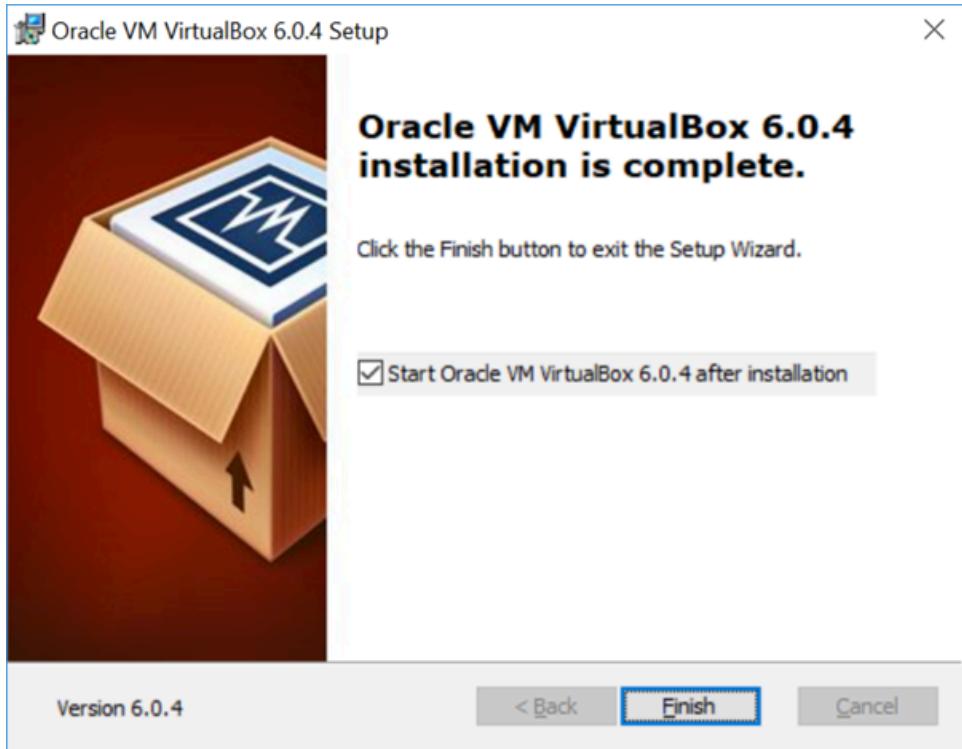
< Back

Install

Cancel







?

×

← Create Virtual Machine

Name and operating system

Please choose a descriptive name and destination folder for the new virtual machine and select the type of operating system you intend to install on it. The name you choose will be used throughout VirtualBox to identify this machine.

Name: Kali Linux

Machine Folder: C:\Users\aaarti\VirtualBox VMs

Type: Linux

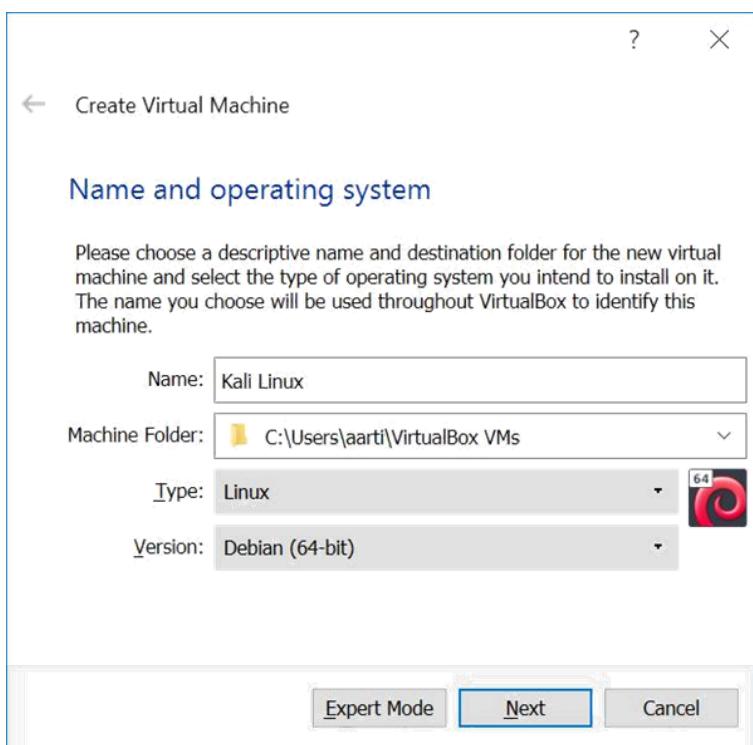
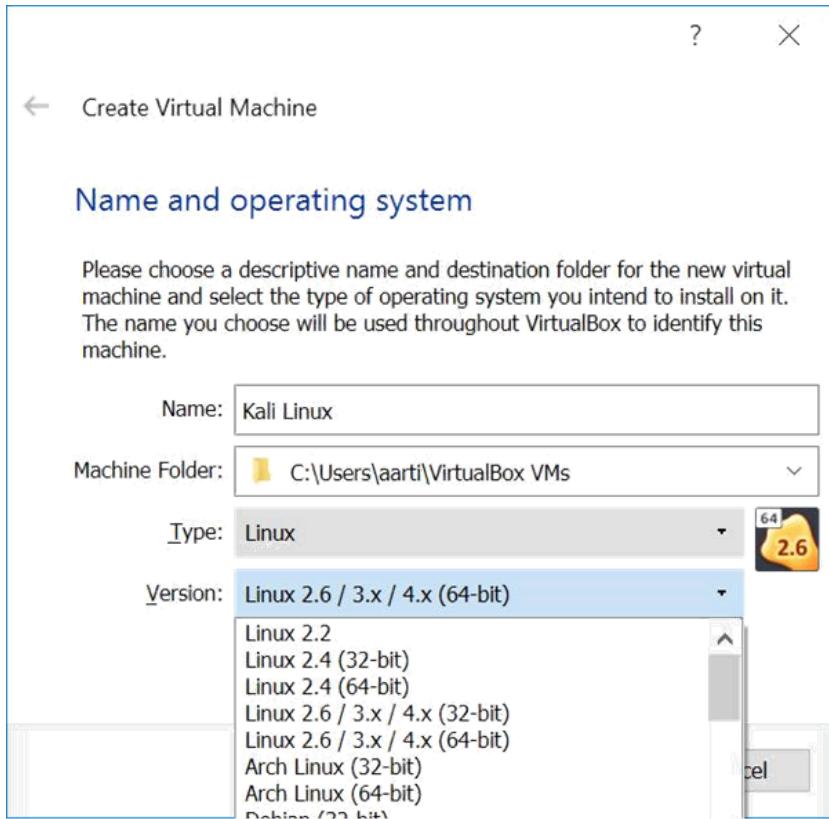


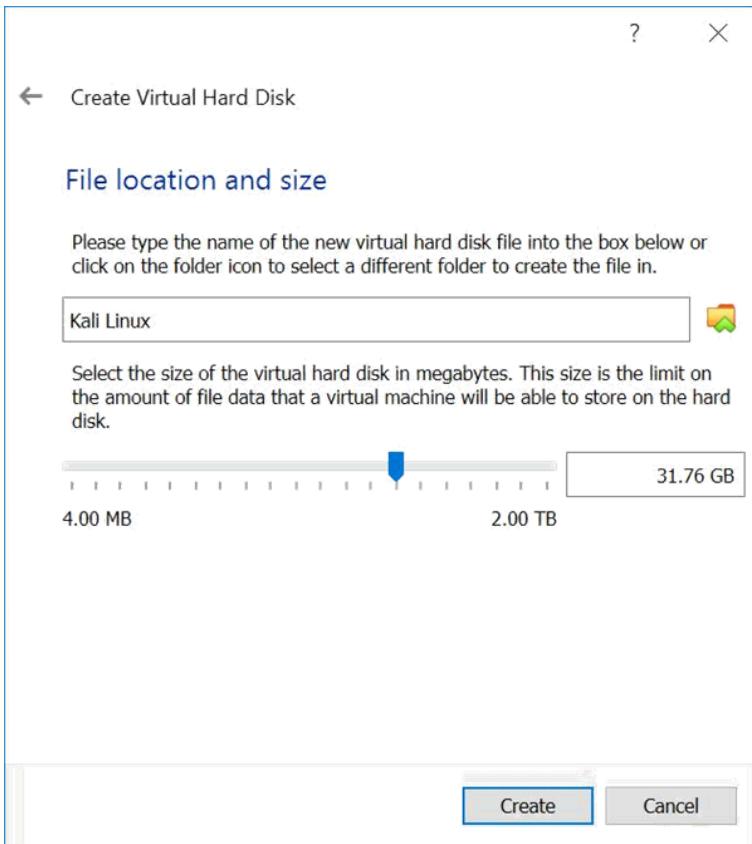
Version: Linux 2.6 / 3.x / 4.x (64-bit)

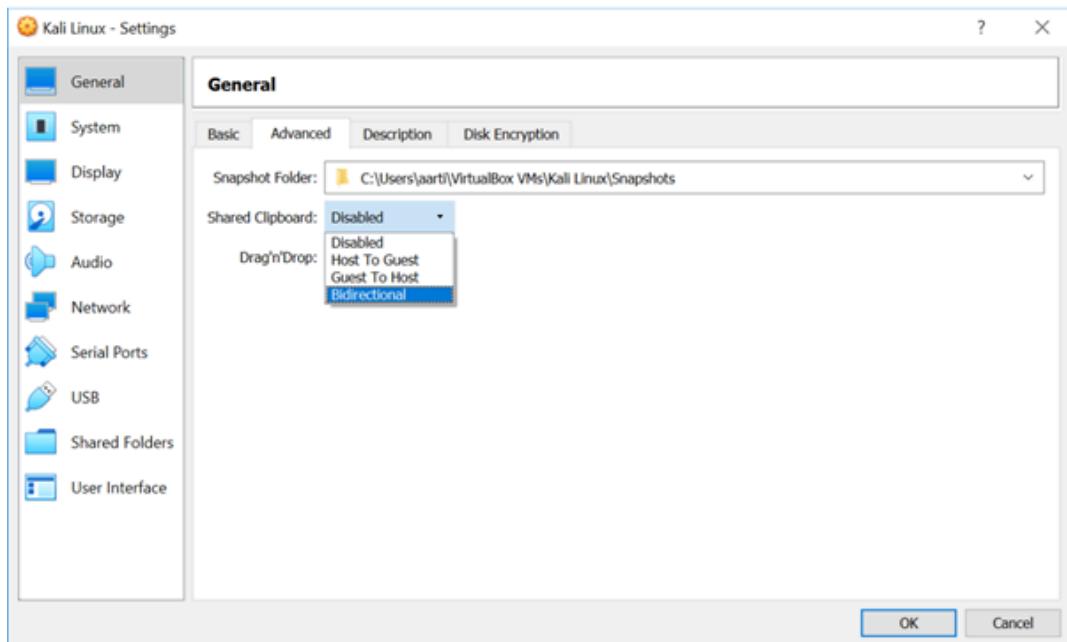
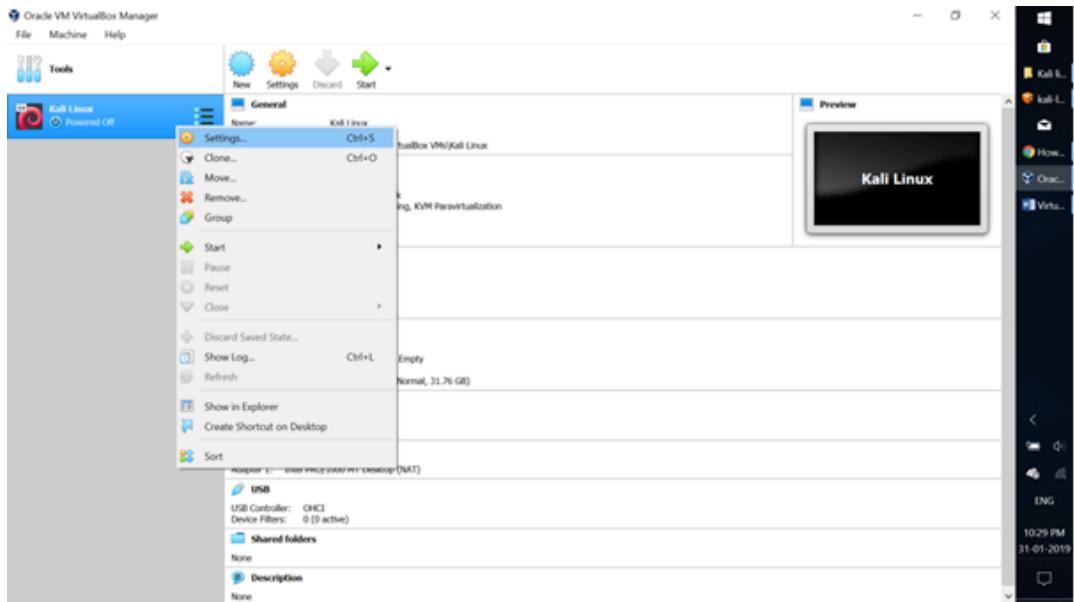
Expert Mode

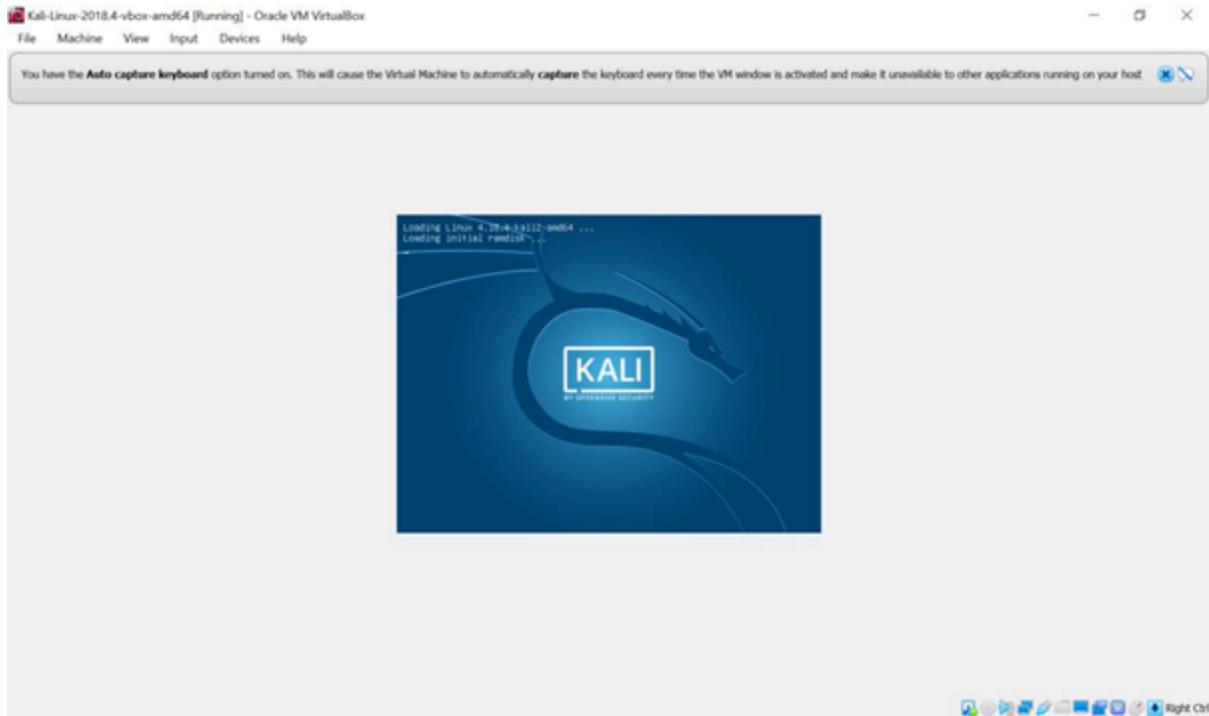
Next

Cancel







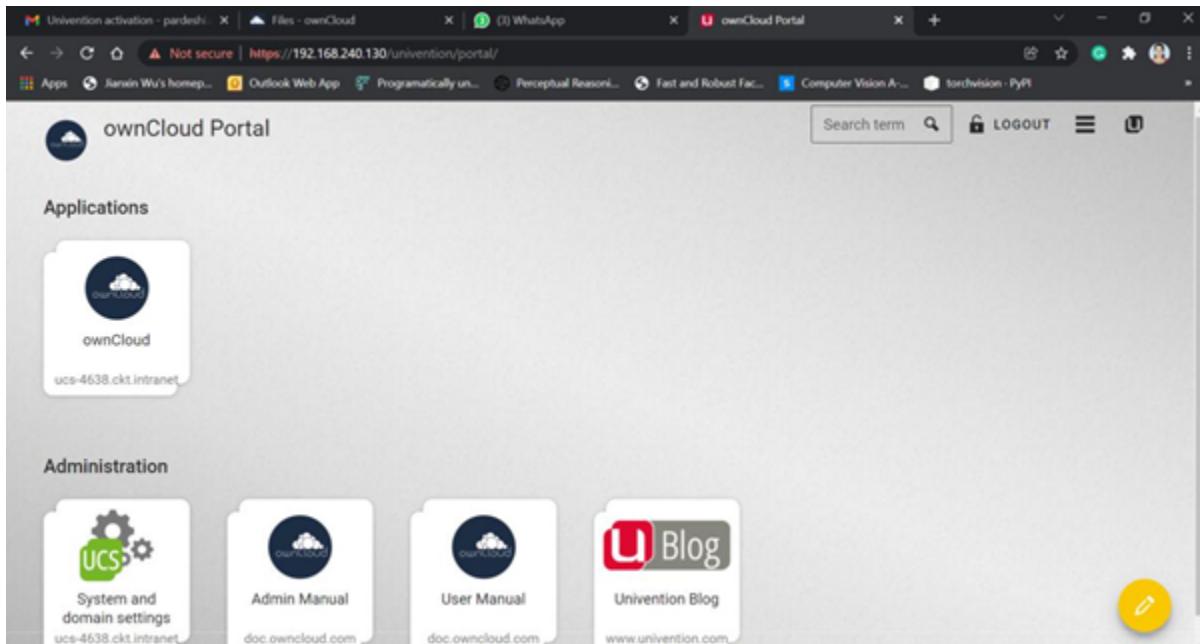


Practical 13

Aim: User Management in Cloud.

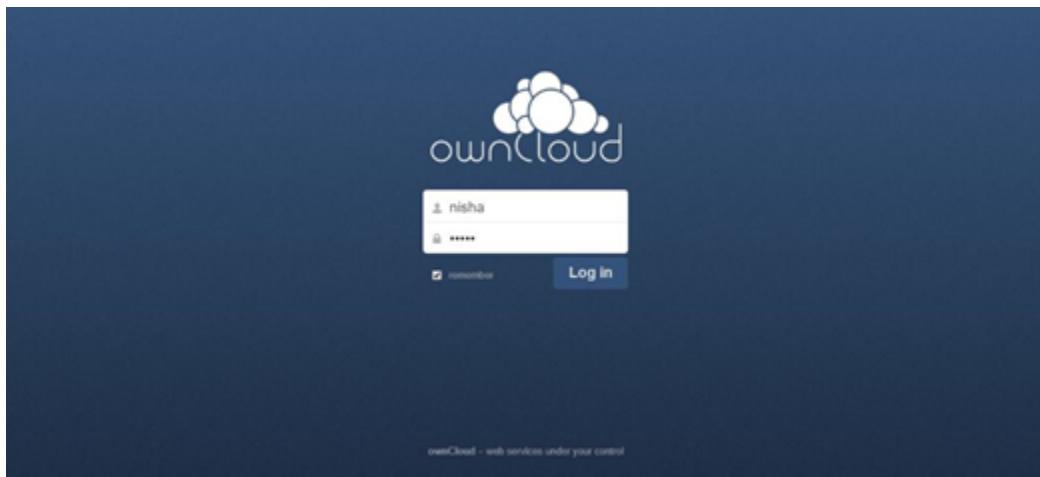
- First open Virtual Box then start ucs-4.4.
- Now go to chrome and in url type the ip address assigned for virtual machine.
- <https://10.0.20.124/univention/portal/>
- Enter the user name and password which we have used at the time of installation.

Following window will open. Now click on ownCloud.

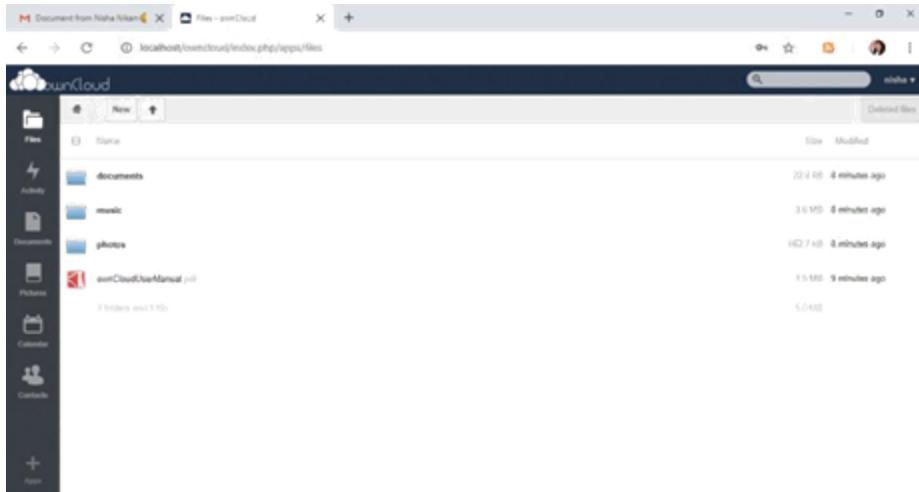




Enter admin name and password which you have set while creating account and click on “Log in”.

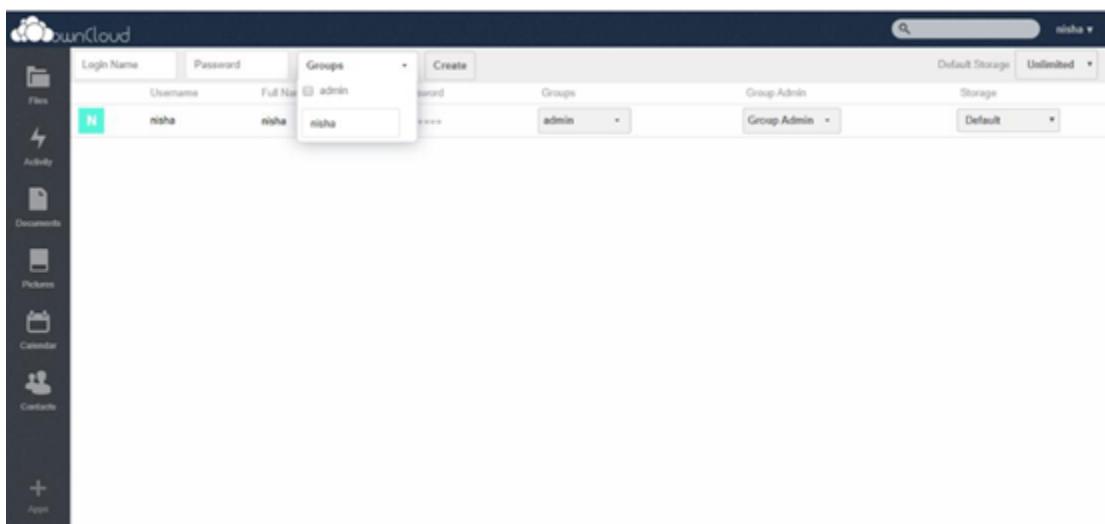
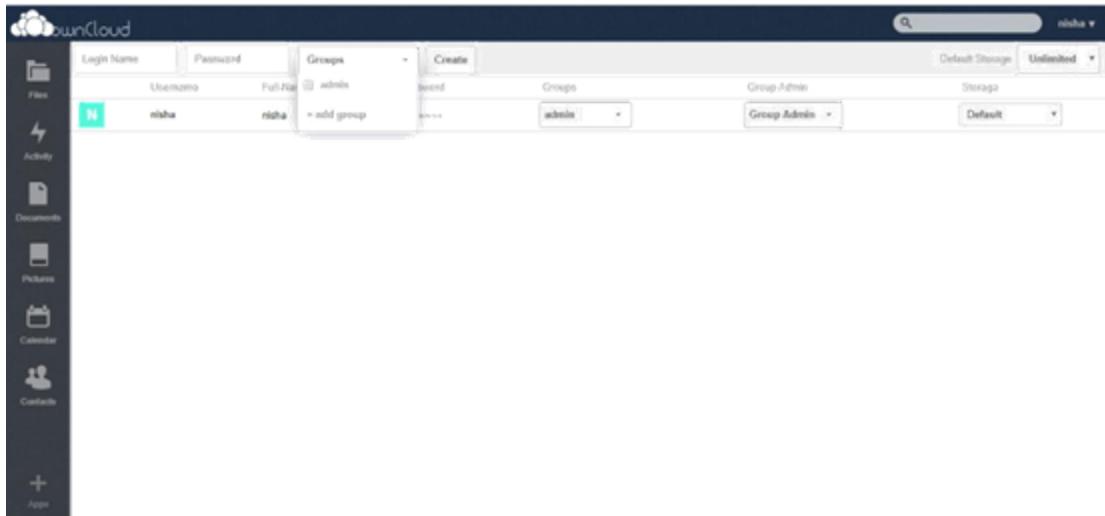


Following dashboard will get load.

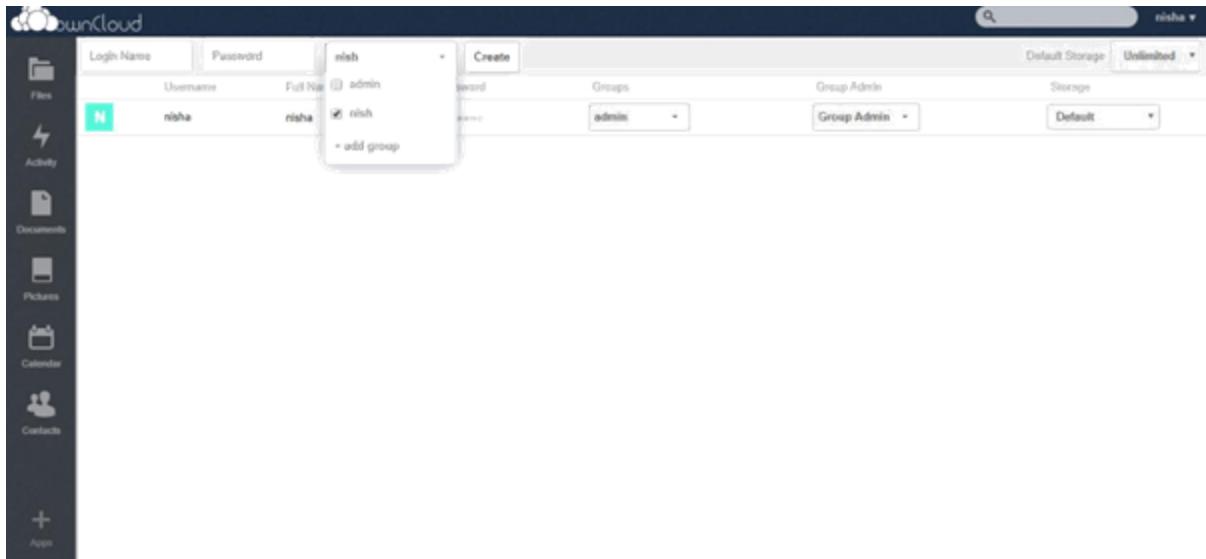


Now go to “Users”.

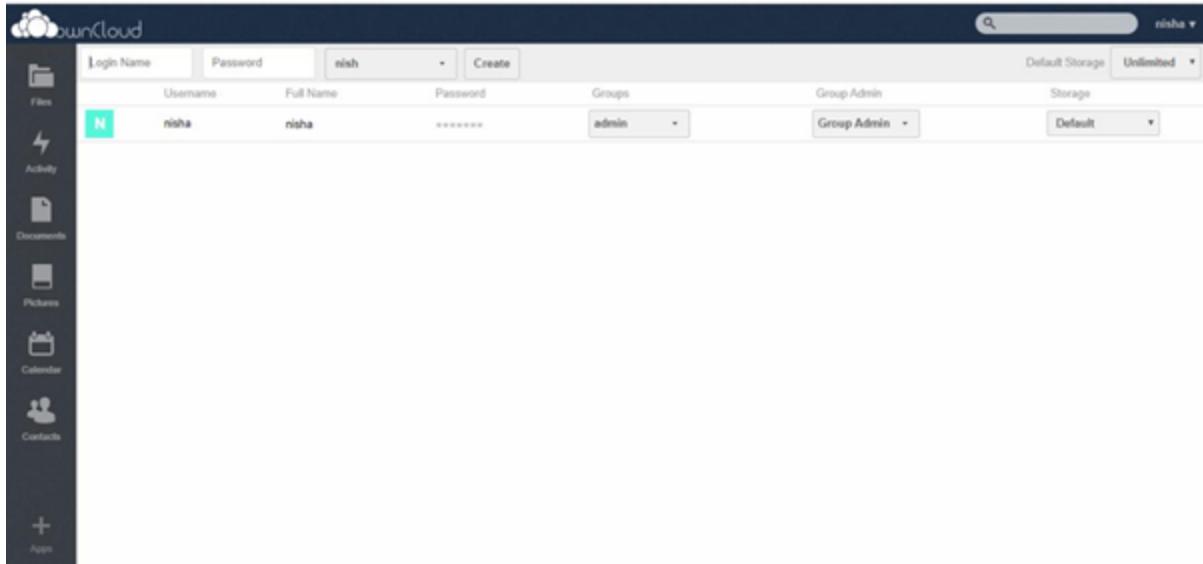
Now let's add group, for that go to “Group” > “add group”.

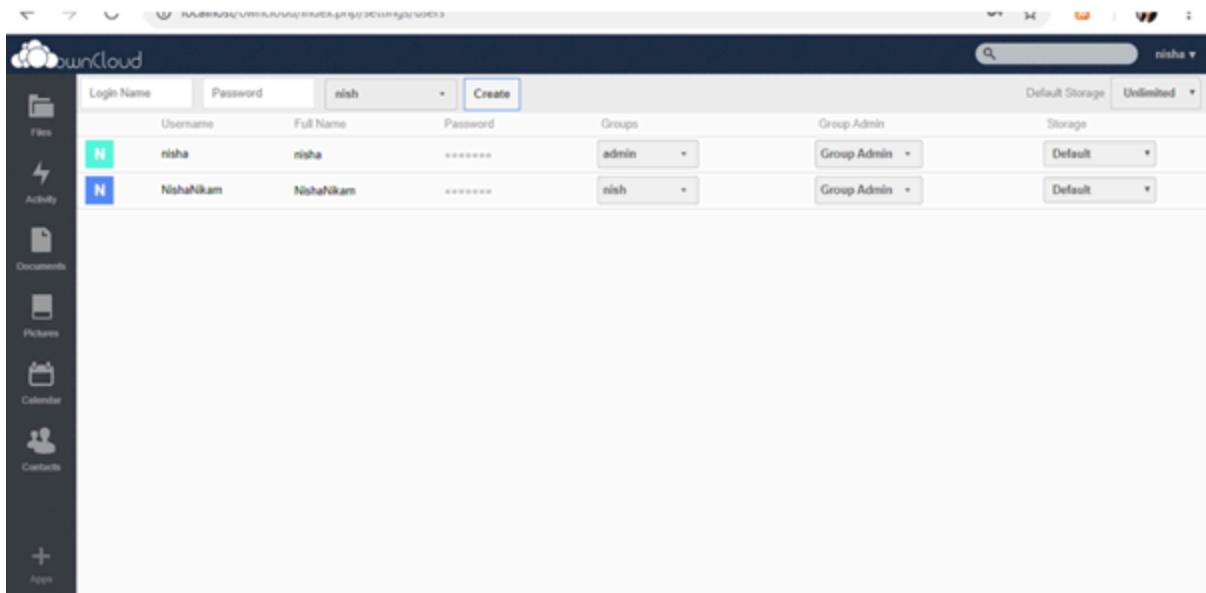
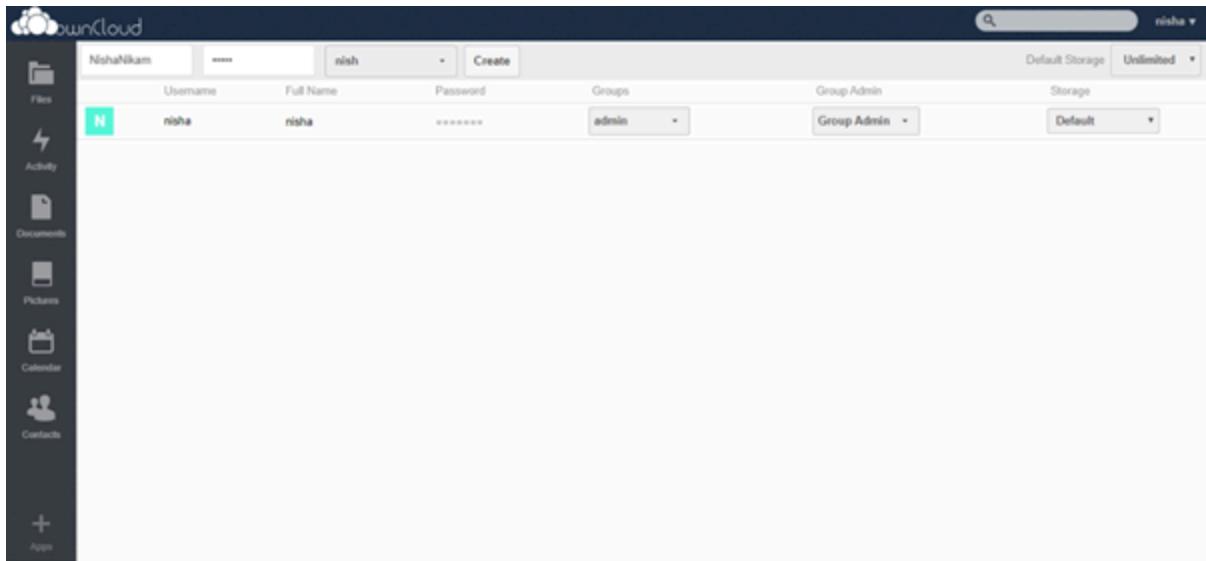


Our group is been added, now select it.



Now enter “Login Name” and “Password” for the user and click on “Create”.





Our user is been added we can change the storage limit for the new user.

Default limit is unlimited as mentioned above.

The screenshot shows the ownCloud user settings interface. At the top, there is a search bar with the text "nisha" and a dropdown menu. Below the search bar, there is a "Create" button. The main area displays a table with columns: Username, Full Name, Password, Groups, Group Admin, and Storage. There are two rows in the table:

Username	Full Name	Password	Groups	Group Admin	Storage
nisha	nisha	*****	admin	Group Admin	Default
NishaNikam	NishaNikam	*****	nish	Group Admin	1 GB

The sidebar on the left contains links for Files, Activity, Documents, Pictures, Calendar, Contacts, and Apps.

Let's add another user but this time in “admin” group.

The screenshot shows the ownCloud user settings interface. The URL in the browser is "localhost/owncloud/index.php/settings/users". The main area displays a table with columns: Username, Full Name, Password, Groups, Group Admin, and Storage. There are three rows in the table:

Username	Full Name	Password	Groups	Group Admin	Storage
nisha	nisha	*****	admin	Group Admin	Default
NishaNikam	NishaNikam	*****	nish	Group Admin	1 GB
Shiv	****	admin	admin	Group Admin	Default

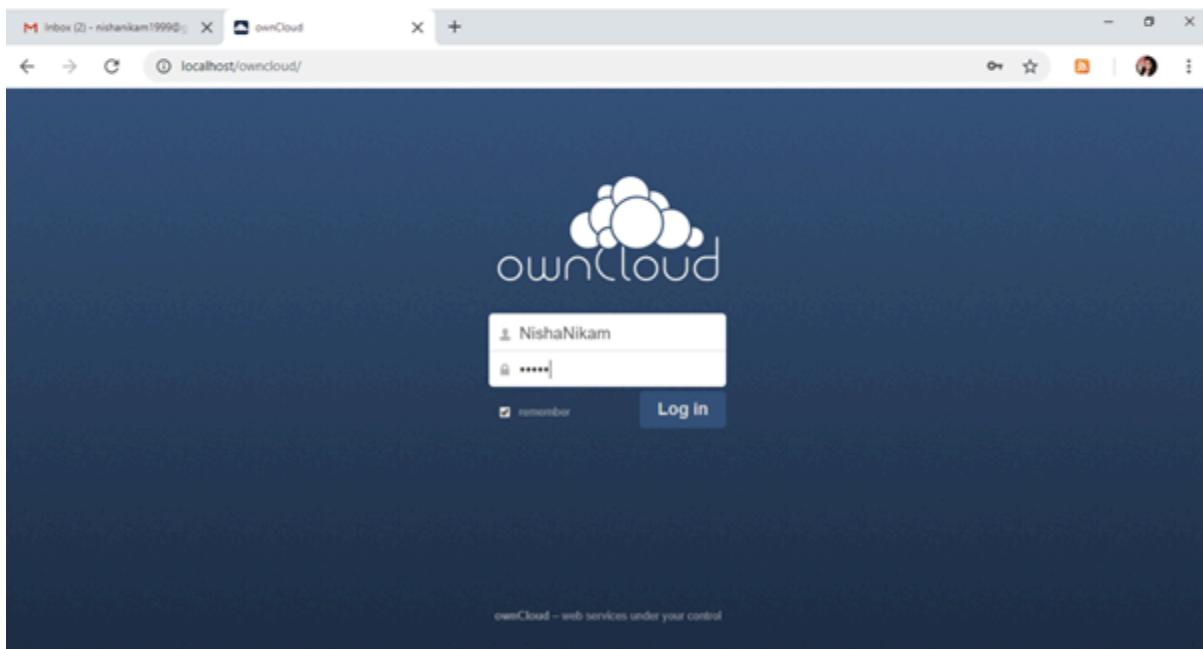
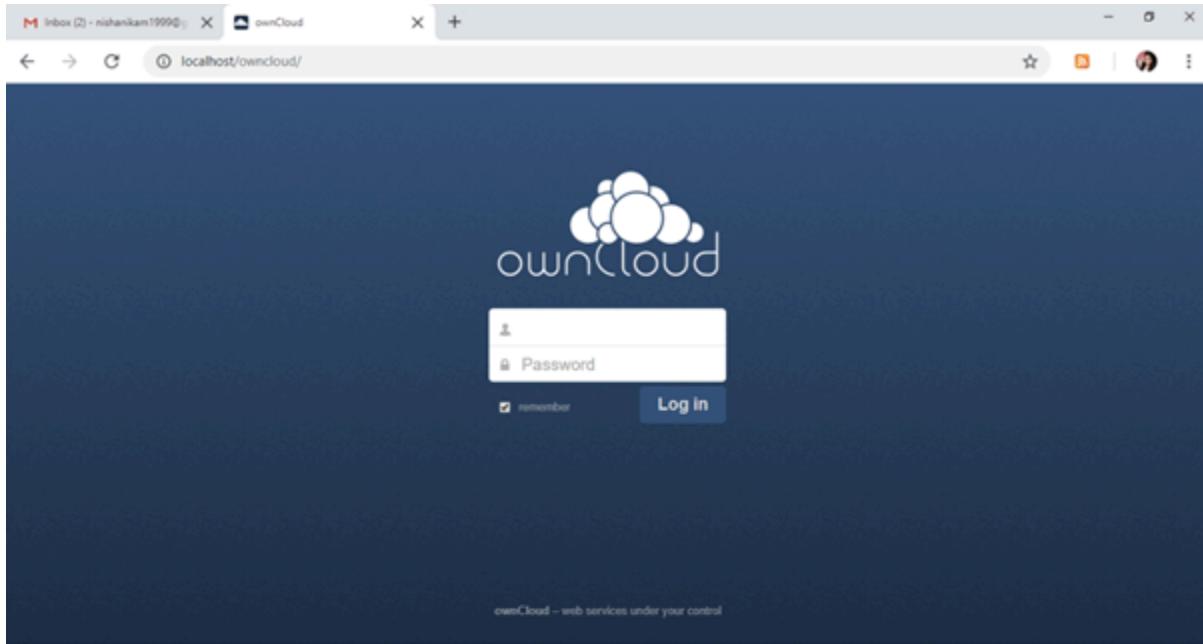
The sidebar on the left contains links for Files, Activity, Documents, Pictures, Calendar, Contacts, and Apps.

If it shows “admin, admin” in group just click on it and uncheck one “admin”.Note:

Sometimes it fails to register user in “admin” group so please check before logging out.

You can check by refreshing the page.

Now “Log out” from the admin account.

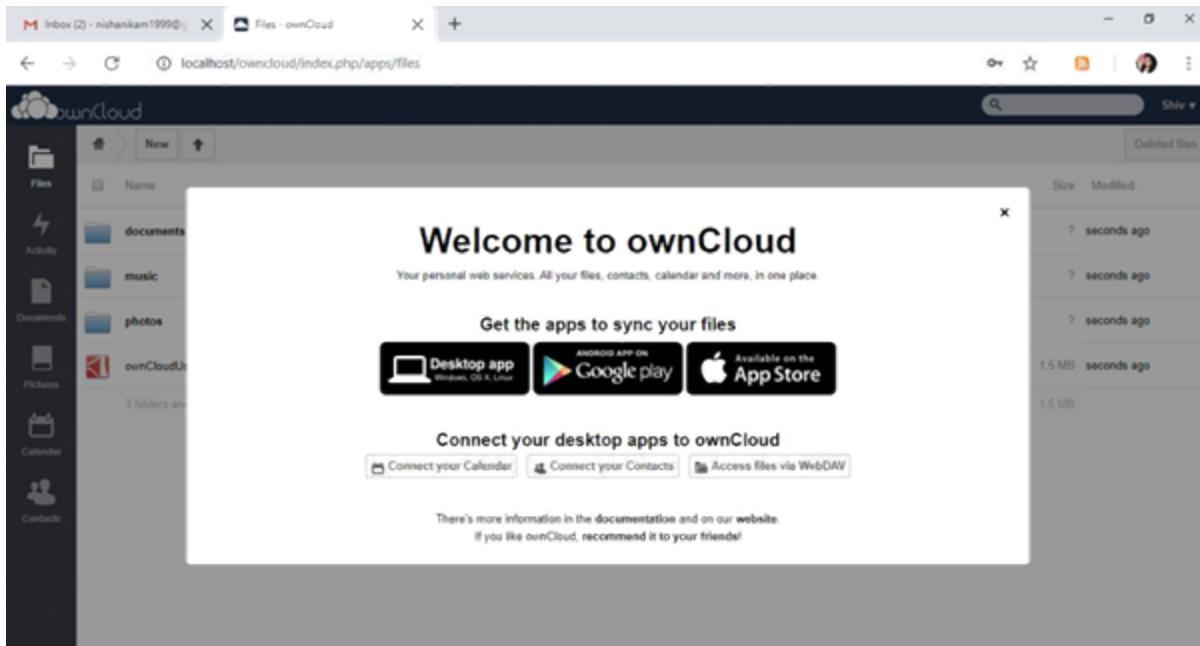


Yes we have logged in.

As you can see this user don't have any privilege link adding users and creating group because it's not in “admin” group, now “log out” from the account.

The image consists of two screenshots of the ownCloud web interface. The top screenshot shows the 'Files' view, with a sidebar containing 'Files', 'Activity', 'Documents', 'Pictures', 'Calendar', and 'Contacts'. The main area lists three folders: 'documents', 'music', and 'photos'. Under 'documents', there is a file named 'ownCloudUserManual.pdf'. The bottom screenshot shows the login screen, featuring the ownCloud logo and fields for 'Email' and 'Password'. There is also a 'remember' checkbox and a 'Log in' button.

Enter login details and click on “Log in”.



As you can see this user has the privileges of admin because he is in “admin” group.

Note: If it doesn't shows the privilege then go to admin account and check if this user group is “admin” group.

This user has all the rights that admin possess like adding or deleting user.

