

Capstone Project: Deploying a Restaurant Application on Cloud

DESCRIPTION

As a Cloud Architect, you are asked to deploy the restaurant application on cloud.

Background of the problem statement:

You have created a new website for the restaurant and used a public cloud for the internet facing website of the restaurant. After deploying the application on cloud, users are complaining about the reloading speed of the page. The website is getting global traffic and static assets like pages are served from a single server. Also, you need to make sure that the traffic coming to the application from different parts of the world is load balanced at DNS level.

You can use either Azure or AWS platforms to design the solution using IaaS OR PaaS.

You have been asked to:

1. Suggest an appropriate solution so that your company can make use of the cloud while keeping the requirements mentioned above for your company in mind
2. Provide an approach to:
 - a. Govern all the resources being used for development, testing, and production of the company's website
 - b. Keep a separate track of the billing life cycle and cost management of all the services being used for hosting the company's website on Cloud
3. Upload all static content of your web site to cloud
4. Create a CDN endpoint and configure it to serve the static files you have uploaded
5. Use storage service and upload files for your teammates to share
6. Connect a Windows or Linux VM to the Storage service

You must use the following tools:

- AWS: Route 53, S3 Bucket, CloudFront, EC2
- Azure: Azure App Service, CDN, DNS, Azure VM, Azure Traffic Manager

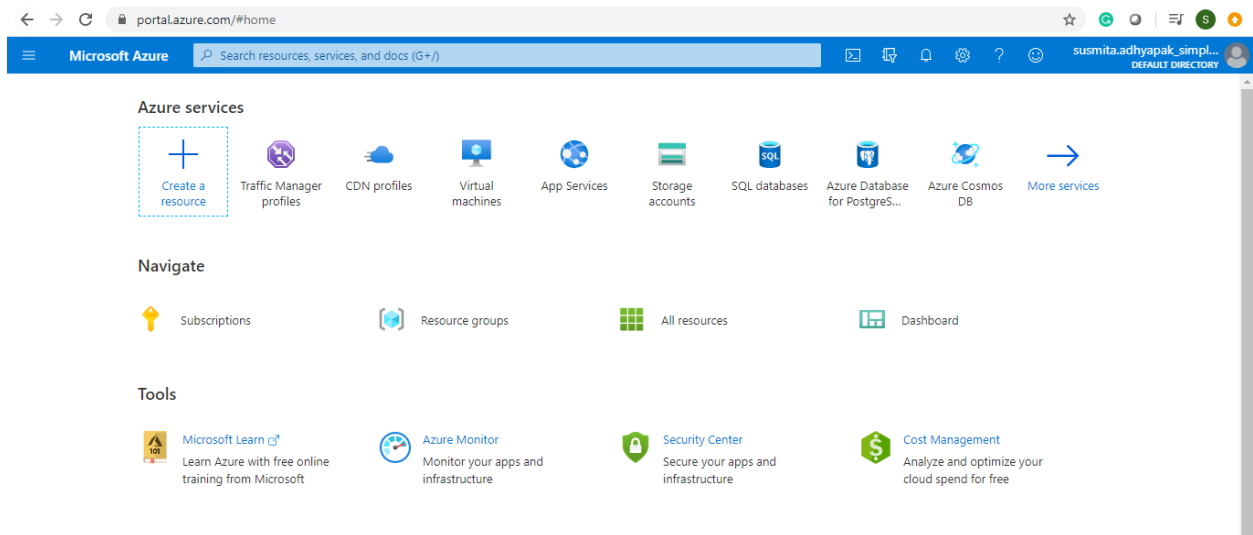
This section will guide you to deploy an application on:

- Azure
- AWS

Azure:

Approach 1:

Step 1: Log into the Azure portal

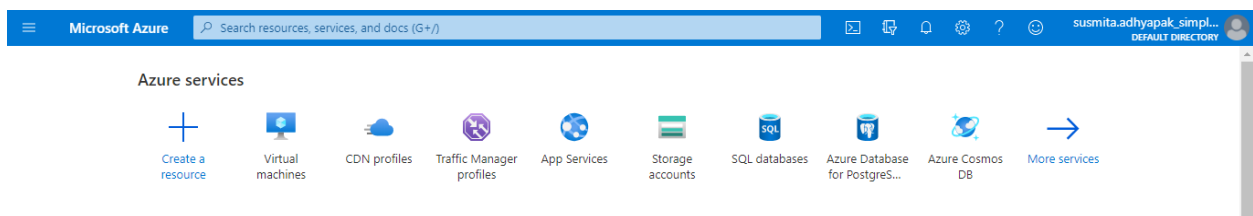


Step 2: Before creating the resources, make sure you apply tags to resources so that you can keep a track of billing later on.

Step 3: To begin, create an Azure App Service Plan in Standard Tier

Step 4: Create an App Service (Web App) using the App Service Plan that you just created

Step 4.1: Click on **Create a resource**



Step 4.2: Search for Web App and click on **Create**

Microsoft Azure

Search resources, services, and docs (G+)

susmita.adhyapak_simpli...
DEFAULT DIRECTORY

Home > New >

Web App

Microsoft

Web App

Microsoft

Allowed by default

Create

Save for later

Overview Plans

App Service Web Apps lets you quickly build, deploy, and scale enterprise-grade web, mobile, and API apps running on any platform. Meet rigorous performance, scalability, security and compliance requirements while using a fully managed platform to perform infrastructure maintenance. Leverage existing tools to deploy and automatically scale your apps without the hassle of managing infrastructure.

App Service supports:

- Applications written in: Node.js, Python, PHP, Java, Ruby, .NET Core, and ASP.NET.
- Run your apps on Linux or Windows.
- Bring your own Code or Bring your own Docker containers.
- Hosting at any scale, from simple websites to cloud scale applications.

Step 4.3: Provide the basic information for the application

Microsoft Azure

Search resources, services, and docs (G+)

Home > New > Web App >

Web App

Basics

Monitoring

Tags

Review + create

App Service Web Apps lets you quickly build, deploy, and scale enterprise-grade web, mobile, and API apps running on any platform. Meet rigorous performance, scalability, security and compliance requirements while using a fully managed platform to perform infrastructure maintenance. [Learn more](#)

Project Details

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

Subscription *

Microsoft Azure Sponsorship - production

Resource Group *

rg-susmita.adhyapak_simplilearn-4zabe

Create new

Instance Details

Name *

onlineFoodOrder

.azurewebsites.net

Publish *

☒ Code
 ☐ Docker Container

Review + create

< Previous

Next : Monitoring >

Microsoft Azure

Search resources, services, and docs (G+)

[Home](#) > [New](#) > [Web App](#) >

Web App

Publish *

☒ Code ☐ Docker Container

Runtime stack *

ASP.NET V4.7

Operating System *

☐ Linux ☒ Windows

Region *

West US

i Not finding your App Service Plan? Try a different region.

App Service Plan

App Service plan pricing tier determines the location, features, cost and compute resources associated with your app.
[Learn more](#)

Windows Plan (West US) *

ASP-rgsusmitaadhyapaksimplilearn4za-bdf1 (S1)
[Create new](#)

Sku and size *

Standard S1
100 total ACU, 1.75 GB memory

Review + create

< Previous

Next : Monitoring >

Note: Choose the runtime stack as ASP.NET V4.7 and choose the region as West US or West US 2

Step 4.4: In the Monitoring section, select **No** for **Enable Application Insights**

Microsoft Azure

Search resources, services, and docs (G+)

[Home](#) >
[New](#) >
[Web App](#) >

Web App

Basics

Monitoring

Tags

Review + create

Application Insights is a code-less attach to provide detailed observability in to your application. [Learn more](#)

Application Insights

Enable Application Insights *

☒ No
☐ Yes


Review + create

< Previous

Next : Tags >


Step 4.5: Click on **Review and Create**

Step 4.6: Click on **Create**

 Microsoft Azure

[Home](#) > [New](#) > [Web App](#) >

Web App

 **Web App**
by Microsoft

Details

Subscription	34f4ae1c-3e38-4e06-ae3-4b37a7d1b483
Resource Group	rg-susmita.adhyapak_simplilearn-4zabe
Name	onlineFoodOrder
Publish	Code
Runtime stack	ASP.NET V4.7

App Service Plan

Name	ASP-rgsusmitaadhyapaksimplilearn4za-bdf1
Operating System	Windows
Region	West US
SKU	Standard
Size	Small
ACU	100 total ACU
Memory	1.75 GB memory

Create

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Next >

[Download a template for automation](#)

Step 4.7: This will create the Web App on Azure.

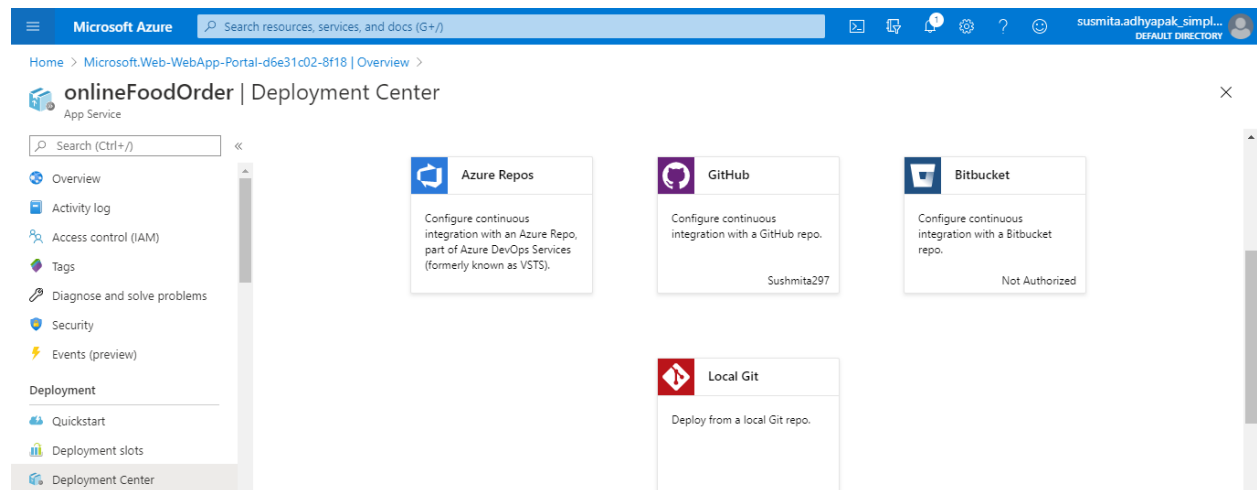
The screenshot shows the Microsoft Azure portal interface. At the top, there's a navigation bar with the Microsoft Azure logo and a search bar. Below the navigation bar, the breadcrumb trail reads "Home > Microsoft.Web-WebApp-Portal-d6e31c02-8f18 | Overview". The main content area displays a deployment overview for a Web App. A green checkmark icon indicates that the deployment is complete. The deployment name is "Microsoft.Web-WebApp-Portal-d6e31c02-8f18", the subscription is "Microsoft Azure Sponsorship - production", and the resource group is "rg-susmita.adhyapak_simplilearn-4zabe". The start time is "6/9/2020, 4:07:47 PM" and the correlation ID is "ab5fb6a5-e846-4d3a-9be7-f912773a2a9f". There are buttons for "Delete", "Cancel", "Redeploy", and "Refresh". A "Go to resource" button is prominently displayed at the bottom of the deployment details section.

Step 4.8: Click on **Go to resource** to get the overview of the created web app

The screenshot shows the Microsoft Azure portal interface for the "onlineFoodOrder" App Service. The breadcrumb trail reads "Home > Microsoft.Web-WebApp-Portal-d6e31c02-8f18 | Overview > onlineFoodOrder". The main content area displays the overview of the App Service. The resource group is "rg-susmita.adhyapak_simplilearn-4zabe", the status is "Running", and the location is "West US". The subscription is "Microsoft Azure Sponsorship - production" and the subscription ID is "34f4ae1c-3e38-4e06-ae3-4b37a7d1b483". The URL is "https://onlinefoodorder.azurewebsites.net". There are buttons for "Browse", "Stop", "Swap", "Restart", "Delete", "Get publish profile", and "Reset publish profile". The left sidebar shows the navigation menu with options like "Overview", "Activity log", "Access control (IAM)", "Tags", "Diagnose and solve problems", "Security", "Events (preview)", "Deployment", "Quickstart", "Deployment slots", and "Deployment Center". The main content area also includes sections for "Diagnose and solve problems", "Application Insights", and "App Service Advisor".

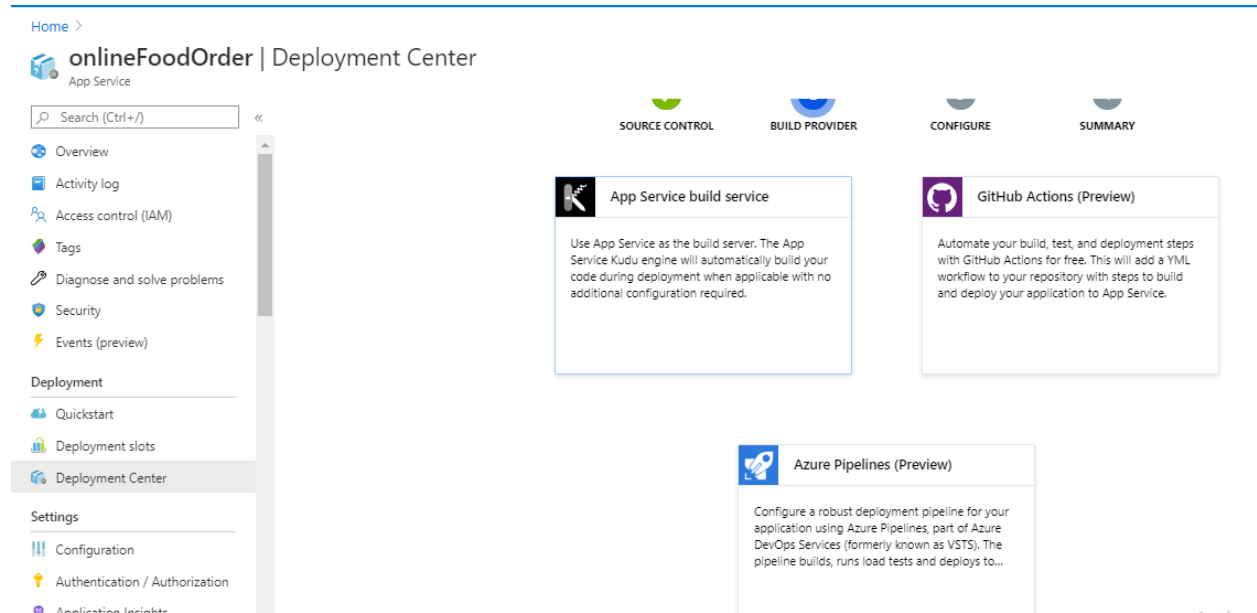
Step 5: Deploy your static web app to Azure App Service (Web App) using a method of your choice such as Visual Studio Code, GitHub, or FTP.

Step 5.1: Go to **Deployment Center**



Step 5.2: Select GitHub

Step 5.3: Authorize your account



Step 5.4: Select the application files uploaded on GitHub and click on **Continue**

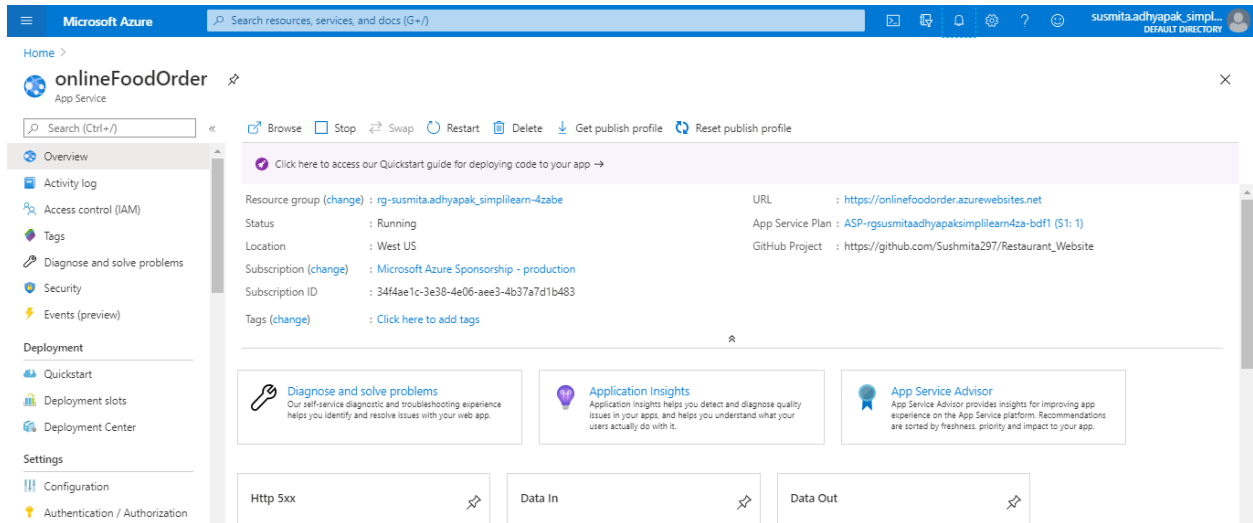
The screenshot shows the Microsoft Azure portal interface. At the top, there's a search bar and navigation icons. Below the header, the page title is 'onlineFoodOrder | Deployment Center'. A left-hand navigation pane lists various options: Overview, Activity log, Access control (IAM), Tags, Diagnose and solve problems, Security, Events (preview), Deployment (with sub-items: Quickstart, Deployment slots, and Deployment Center), Settings (with sub-items: Configuration, Authentication / Authorization, Application Insights, Identity, and Backups), and Backups. The 'Deployment Center' option is selected. The main content area shows a progress bar with four steps: SOURCE CONTROL, BUILD PROVIDER, CONFIGURE (active), and SUMMARY. Below the progress bar, there's a 'Code' section with a message: 'If you can't find an organization or repository, you might need to enable additional permissions on GitHub.' Below this message are three dropdown menus: 'Organization' (selected: Sushmita297), 'Repository' (selected: Restaurant_Website), and 'Branch' (selected: master). At the bottom right, there are 'Back' and 'Continue' buttons.

Step 5.5: Click on **Finish**

The screenshot shows the Microsoft Azure portal interface, similar to the previous one. The page title is 'onlineFoodOrder | Deployment Center'. The left-hand navigation pane is the same. The main content area shows the progress bar with four steps: SOURCE CONTROL, BUILD PROVIDER, CONFIGURE, and SUMMARY (active). Below the progress bar, there's a 'SOURCE CONTROL' section with 'Repository' (https://github.com/Sushmita297/Restaurant_Website) and 'Branch' (master). Below that is a 'BUILD PROVIDER' section with 'Provider' (App Service build service). At the bottom right, there are 'Back' and 'Finish' buttons.

Step 6: Hit the web app endpoint to check if the application is online

Step 6.1: Click on Overview of the web app

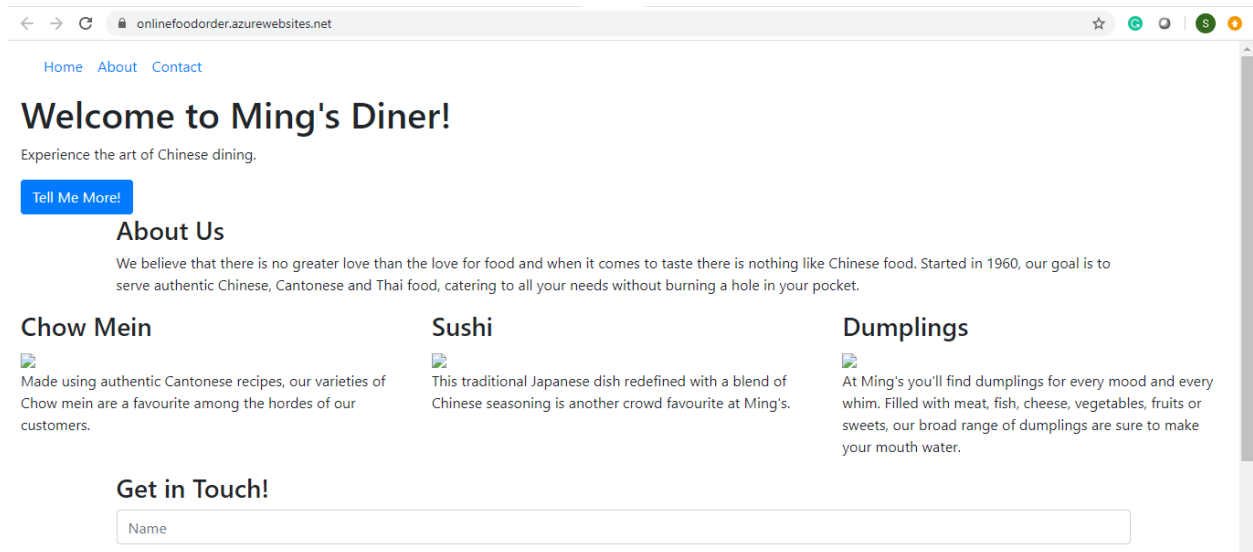


The screenshot shows the Microsoft Azure portal interface. At the top, there's a search bar and navigation icons. The main content area is titled 'onlineFoodOrder' and shows the 'Overview' tab selected in the left-hand navigation pane. The overview page includes a list of actions (Browse, Stop, Swap, Restart, Delete, Get publish profile, Reset publish profile) and a table of key properties:

Resource group (change)	: rg-susmita.adhyapak_simplilearn-4zabe	URL	: https://onlinefoodorder.azurewebsites.net
Status	: Running	App Service Plan	: ASP-rgsusmitaadhypaksimplilearn4za-bdf1 (S1: 1)
Location	: West US	GitHub Project	: https://github.com/Sushmita297/Restaurant_Website
Subscription (change)	: Microsoft Azure Sponsorship - production		
Subscription ID	: 34f4ae1c-3e38-4e06-aea3-4b37a7d1b483		
Tags (change)	: Click here to add tags		

Below the table, there are three cards: 'Diagnose and solve problems', 'Application Insights', and 'App Service Advisor'. At the bottom, there are three data flow indicators: 'Http 5xx', 'Data In', and 'Data Out'.

Step 6.2: Click on the URL and you will get the application running

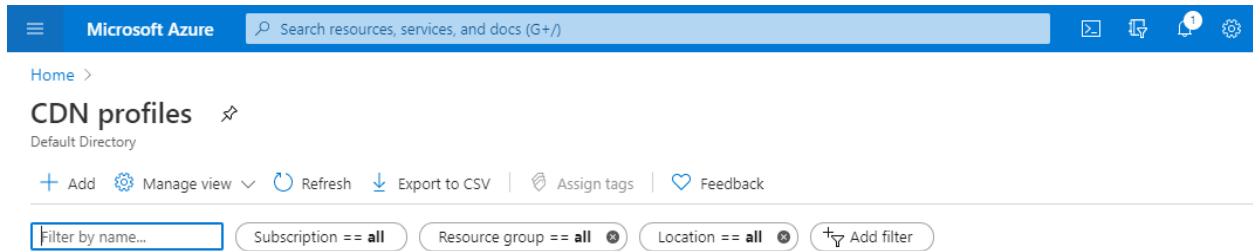


The screenshot shows a web browser displaying the 'onlinefoodorder.azurewebsites.net' URL. The page has a navigation bar with links for 'Home', 'About', and 'Contact'. The main heading is 'Welcome to Ming's Diner!' followed by the tagline 'Experience the art of Chinese dining.' and a 'Tell Me More!' button. Below this, there's an 'About Us' section with a paragraph about the restaurant's mission. Further down, there are three columns for 'Chow Mein', 'Sushi', and 'Dumplings', each with a description and a small image. At the bottom, there's a 'Get in Touch!' section with a form for entering a name.

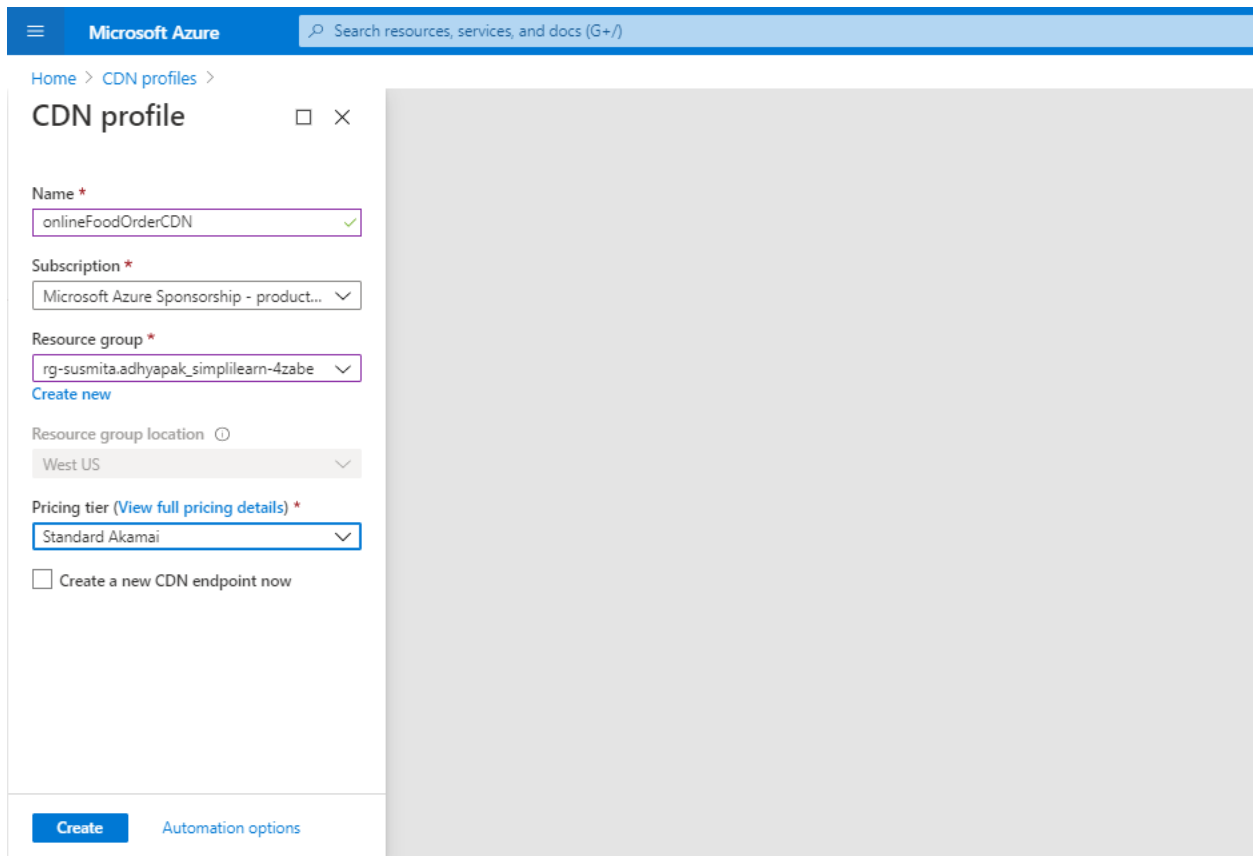
Step 7: Now create a CDN profile

Step 7.1: In the search window, search for CDN profiles

Step 7.2: Click on **Add**



Step 7.3: Provide the information to create the CDN and click on **Create**



Step 8: Use CDN profile to create an endpoint

Step 8.1: Go to the created CDN

The screenshot shows the Azure portal interface for a CDN profile named 'onlineFoodOrderCDN'. The left sidebar contains navigation options like Overview, Activity log, Access control (IAM), Tags, Diagnose and solve problems, Settings, Properties, Quickstart, Locks, Export template, Support + troubleshooting, Resource health, and New support request. The main content area displays the profile details: Resource group (rg-susmita.adhyapak_simplilearn-4zabe), Status (Active), Subscription (Microsoft Azure Sponsorship - production), and Subscription ID (34f4ae1c-3e38-4e06-ae3-4b37a7d1b483). The 'Endpoints' section shows a table with columns for Hostname, Status, Protocol, Origin type, and Custom domains, but it is currently empty with the message 'No endpoints are associated with this profile'.

Step 8.2: Click on Endpoint

Step 8.3: Provide the basic information about the endpoint and click on **Add**

The screenshot shows the 'Add an endpoint' dialog box in the Azure portal. The dialog is titled 'Add an endpoint' and includes a subtitle 'Allows configuring content delivery behavior and access.' The fields are as follows: Name (onlineFoodOrderCDNEndpoint), Origin type (Web App), Origin hostname (onlinefoodorder.azurewebsites.net), Origin path (/Path), Origin host header (onlinefoodorder.azurewebsites.net), Protocol (checked for HTTP and HTTPS), Origin port (80 for HTTP, 443 for HTTPS), and Optimized for (General web delivery). The 'Add' button is visible at the bottom right of the dialog.

Step 8.4: Go to the created CDN endpoint and click on **Origin hostname**

The screenshot shows the Microsoft Azure portal interface. The top navigation bar includes the Microsoft Azure logo, a search bar, and user information. The main content area displays the configuration for an **onlineFoodOrderCDNEndpoint**. The left sidebar contains a navigation menu with options like Overview, Activity log, Access control (IAM), Tags, Diagnose and solve problems, Settings, Origin, Custom domains, Compression, Caching rules, Geo-filtering, Optimization, Locks, and Export template. The main configuration area shows details for the endpoint, including its resource group, status, location, subscription, and endpoint hostname. A section for custom domains is also visible, indicating that there are no custom domains currently configured.

Step 8.5: Your application is running.

The screenshot shows a web browser displaying the 'Welcome to Ming's Diner!' website. The browser's address bar shows the URL 'onlinefoodorder.azurewebsites.net'. The website has a clean, modern design with a blue header containing 'Home', 'About', and 'Contact' links. The main content area features a large 'Welcome to Ming's Diner!' heading, followed by a subheading 'Experience the art of Chinese dining.' and a 'Tell Me More!' button. Below this is an 'About Us' section with a paragraph about the diner's mission. Further down, there are three columns for 'Chow Mein', 'Sushi', and 'Dumplings', each with a small image and a brief description. At the bottom, there is a 'Get in Touch!' section with a text input field for a name.

Step 9: Repeat steps 2 to 7 to create multiple deployments of your application in different regions so that you can meet the global traffic demand

Step 10: To make sure that traffic coming from different parts of the world is load balanced at DNS level, create a Traffic Manager Profile

Step 10.1: In the search window, search for Traffic Manager Profile. Click on **Add** to create a new traffic manager profile

Step 10.2: Provide the required information and click on **Create** to create the Traffic Manager Profile

Step 11: Create endpoints in the traffic manager corresponding to each CDN endpoints that you have created

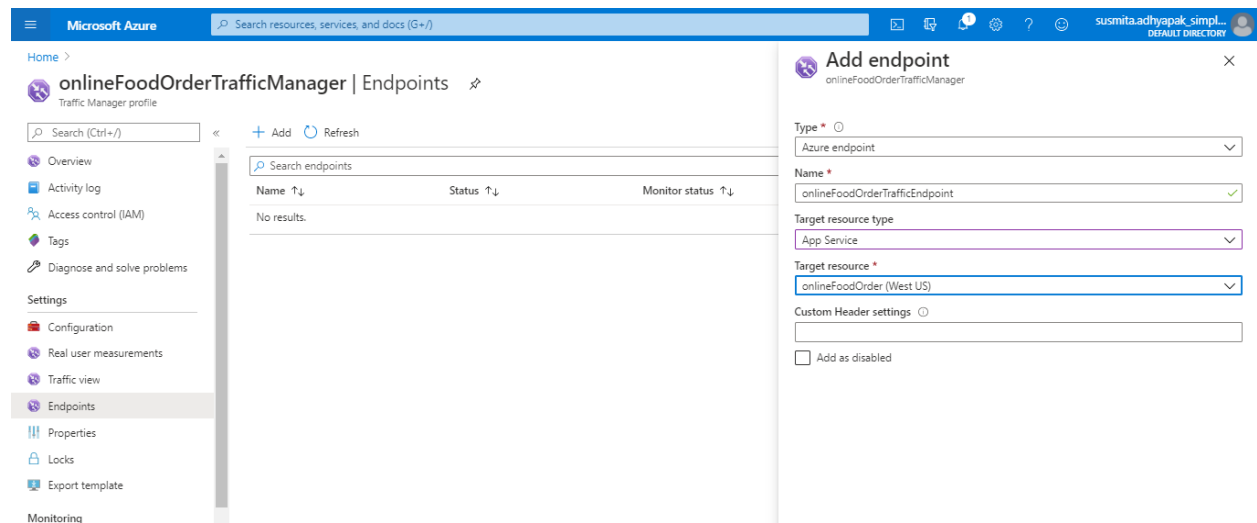
Step 11.1: Go to the created Traffic Manager Profile

The screenshot shows the Microsoft Azure portal interface. The top navigation bar includes the 'Microsoft Azure' logo, a search bar, and user information for 'susmita.adhyapak_simpl...'. The main content area displays the 'onlineFoodOrderTrafficManager' profile overview. On the left, a sidebar lists navigation options: Overview, Activity log, Access control (IAM), Tags, Diagnose and solve problems, Settings (Configuration, Real user measurements, Traffic view, Endpoints, Properties, Locks, Export template), and Monitoring. The 'Overview' section is active, showing profile details: Resource group (rg-susmita.adhyapak_simplilearn-4zabe), DNS name (http://onlinefoodordertrafficmanager.trafficmanager.net), Status (Enabled), Subscription (Microsoft Azure Sponsorship - production), Subscription ID (34f4ae1c-3e38-4e06-ae3-4b37a7d1b483), and Tags (Click here to add tags). Below this, a table for endpoints is shown with columns: Name, Status, Monitor status, Type, and Location. The table currently contains no results.

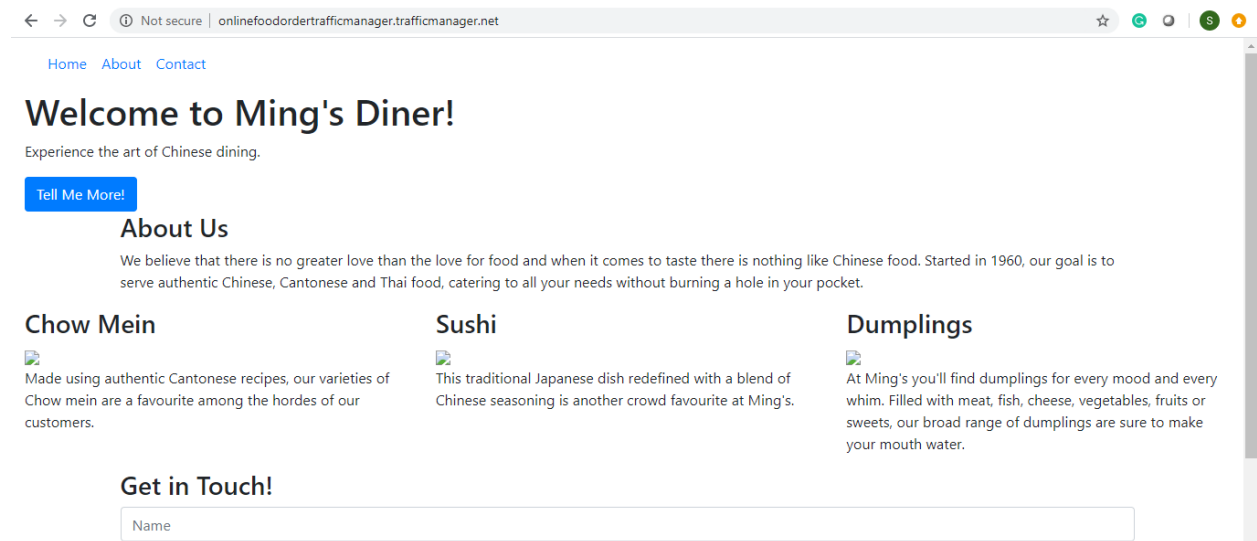
Step 11.2: Click on **Endpoints**. Click on **Add** to add new endpoints

The screenshot shows the Microsoft Azure portal interface, specifically the 'Endpoints' page for the 'onlineFoodOrderTrafficManager' profile. The left sidebar is the same as in the previous screenshot, but the 'Endpoints' option under 'Settings' is now selected and highlighted. The main content area shows the 'Endpoints' section with a search bar and a table. Above the table, there are '+ Add' and 'Refresh' buttons. The table has columns: Name, Status, Monitor status, Type, and Location. The table currently contains no results.

Step 11.3: Provide the required information and click on **Add**



Step 11.4: Once the monitor status is online, copy the link of the DNS name and check whether the application is online



Step 12: Optionally, if you want to add the application in your own domain, you can configure the traffic manager to point to a custom domain.

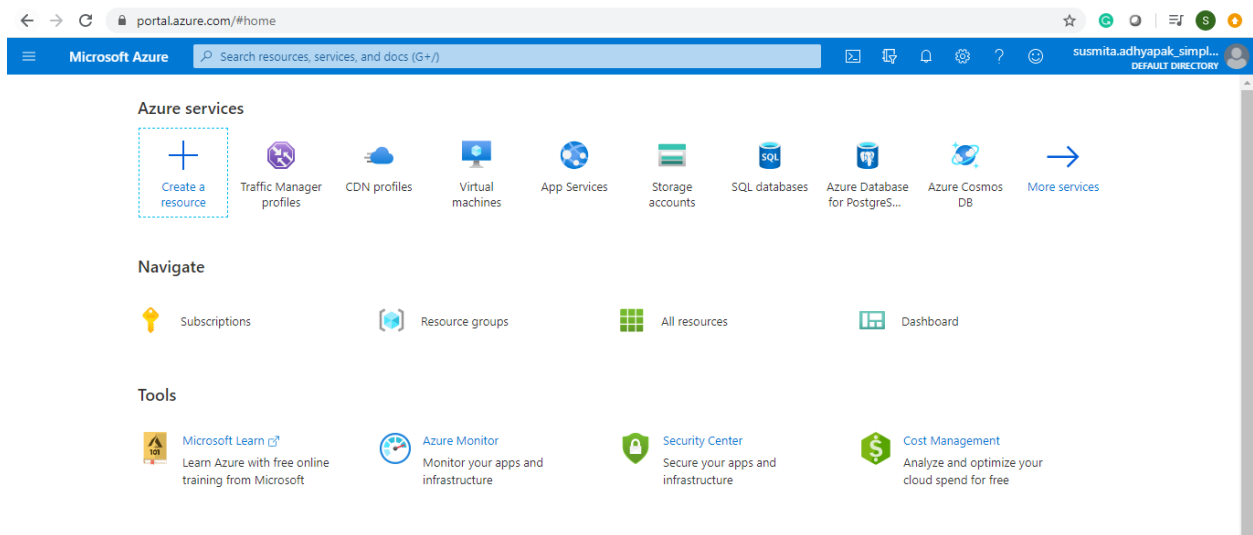
Step 13: As good practice, follow the principle of least privilege so that you give

access to the services that need to be accessed within the azure portal

Azure:

Approach 2:

Step 1: Log into the Azure portal



Step 2: Before creating the resources, make sure you apply tags to resources so that

you can keep a track of billing later on.

Step 3: To begin , create an Azure VM

Step 3.1: Search for Virtual Machines and click on **Add**

The screenshot shows the Microsoft Azure portal interface for the 'Virtual machines' section. The top navigation bar includes the Microsoft Azure logo, a search bar, and user information. The main content area shows the 'Virtual machines' page with a 'Default Directory' link. Below the page title, there are several action buttons: '+ Add', 'Reservations', 'Edit columns', 'Refresh', 'Assign tags', 'Start', 'Restart', 'Stop', 'Delete', and 'Services'. A 'Subscriptions' section shows 'Microsoft Azure Sponsorship - production'. Below this, there are filter dropdowns for 'Filter by name...', 'All resource groups', 'All types', 'All locations', 'All tags', and 'No grouping'. A table header is visible with columns: Name, Type, Status, Resource group, Location, Source, Maintenance status, and Subscription. The table is currently empty, displaying '0 items'. A large monitor icon with a hexagon inside is shown, followed by the text 'No virtual machines to display'. Below this, a message states 'Create a virtual machine that runs Linux or Windows. Select an image from the marketplace or use your own customized image.' and provides links to 'Learn more about Windows virtual machines' and 'Learn more about Linux virtual machines'. A blue button labeled 'Create virtual machine' is at the bottom.

Step 3.2: Provide basic information about the VM

Microsoft Azure

Search resources, services, and docs (G+)

[Home](#) > [Virtual machines](#) >

Create a virtual machine

[Basics](#)
[Disks](#)
[Networking](#)
[Management](#)
[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 *

Microsoft Azure Sponsorship - production

Resource group *

rg-susmita.adhyapak_simplilearn-gye3v

Create new

Instance details

Virtual machine name *

SimpliVM

Region *

(US) West US

Availability options

No infrastructure redundancy required

Image *

Windows Server 2016 Datacenter

Review + create

< Previous

Next : Disks >

Microsoft Azure

Search resources, services, and docs (G+)

[Home](#) > [Virtual machines](#) >

Create a virtual machine

[Basics](#)
[Disks](#)
[Networking](#)
[Management](#)
[Advanced](#)
[Tags](#)
[Review + create](#)

Azure Spot instance

☐ Yes
 ☒ No

Size *

Standard_B2s - 2 vcpus, 4 GiB memory (₹2,779.22/month)

Select size

Administrator account

Username *

AzureUser

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 *

HTTP (80), HTTPS (443), 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.

Review + create

< Previous

Next : Disks >

Step 3.3: In the Disks section, provide the required information

Microsoft Azure

Search resources, services, and docs (G+)

[Home](#) > [Virtual machines](#) >

Create a virtual machine

Basics

Disks

Networking

Management

Advanced

Tags

Review + create

Azure VMs have one operating system disk and a temporary disk for short-term storage. You can attach additional data disks. The size of the VM determines the type of storage you can use and the number of data disks allowed. [Learn more](#)

Disk options

OS disk type *

Standard HDD

The selected VM size supports premium disks. We recommend Premium SSD for high IOPS workloads. Virtual machines with Premium SSD disks qualify for the 99.9% connectivity SLA.

Encryption type *

(Default) Encryption at-rest with a platform-managed key

Enable Ultra Disk compatibility

☐ Yes
 ☒ No

Data disks

You can add and configure additional data disks for your virtual machine or attach existing disks. This VM also comes with a temporary disk.

LUN	Name	Size (GiB)	Disk type	Host caching
Create and attach a new disk Attach an existing disk				

Review + create

< Previous

Next : Networking >

Step 3.4: In the Management section, turn off the Boot diagnostics

Microsoft Azure

Search resources, services, and docs (G+/)

Home > Virtual machines >

Create a virtual machine

Basics

Disks

Networking

Management

Advanced

Tags

Review + create

Configure monitoring and management options for your VM.

Azure Security Center

Azure Security Center provides unified security management and advanced threat protection across hybrid cloud workloads.

[Learn more](#)

✔

Your subscription is protected by Azure Security Center basic plan.

Monitoring

Boot diagnostics ⓘ

☐ On
☒ Off

OS guest diagnostics ⓘ

☐ On
☒ Off

Identity

System assigned managed identity ⓘ

☐ On
☒ Off

Azure Active Directory

Login with AAD credentials (Preview) ⓘ

☐ On
☒ Off

Review + create

< Previous

Next : Advanced >

Step 3.4: Click on **Review and Create**

Microsoft Azure

Search resources, services, and docs (G+)

Home > Virtual machines >

Create a virtual machine

Basics

Disks

Networking

Management

Advanced

Tags

Review + create

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

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

Name	Value	Resource
<input type="text"/>	:	<input type="text"/> 11 selected

Review + create

< Previous

Next : Review + create >

Step 3.5: Click on **Create**

Microsoft Azure

Search resources, services, and docs (G+)

Home > Virtual machines >

Create a virtual machine

Validation passed

Basics

Disks

Networking

Management

Advanced

Tags

Review + create

PRODUCT DETAILS

Standard B2s
 by Microsoft
[Terms of use](#) | [Privacy policy](#)

Subscription credits apply ⓘ
3.8071 INR/hr
[Pricing for other VM sizes](#)

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.

Create

< Previous

Next >

[Download a template for automation](#)

Step 3.6: Your VM will get deployed.

Microsoft Azure

Search resources, services, and docs (G+)

Home >

CreateVm-MicrosoftWindowsServer.WindowsServer-201-20200612123115 | Overview

Overview

Inputs

Outputs

Template

Delete
 Cancel
 Redeploy
 Refresh

We'd love your feedback! →

Your deployment is complete

Deployment name: CreateVm-MicrosoftWindowsServer.WindowsS...
 Start time: 6/12/2020, 12:35:14 PM

Subscription: [Microsoft Azure Sponsorship - production](#)
 Correlation ID: da58f25d-3d73-4073-be26-838ca01f152b

Resource group: [rg-susmita.adhyapak_simplilearn-gye3v](#)

Deployment details [\(Download\)](#)

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

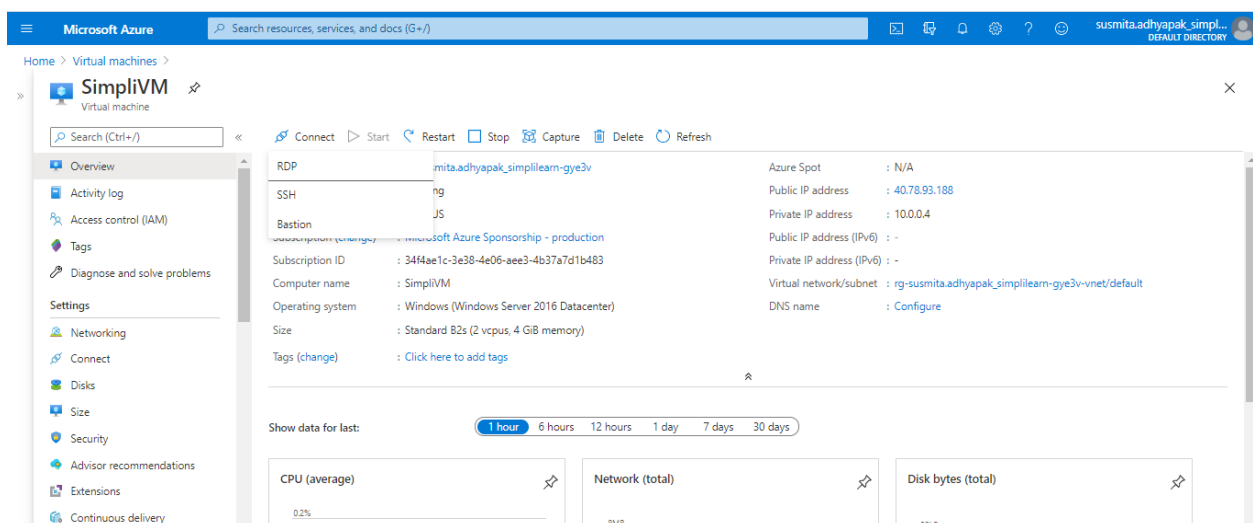
Create another VM

Step 4: Make sure you have inbound traffic on port 80 and port 443 open.

Step 5: Make sure port 445 is open on your VMs so that teammates can use common file share to access and share files if needed.

Step 6: Log into Azure VM and spin up a web server of your choice on port 80

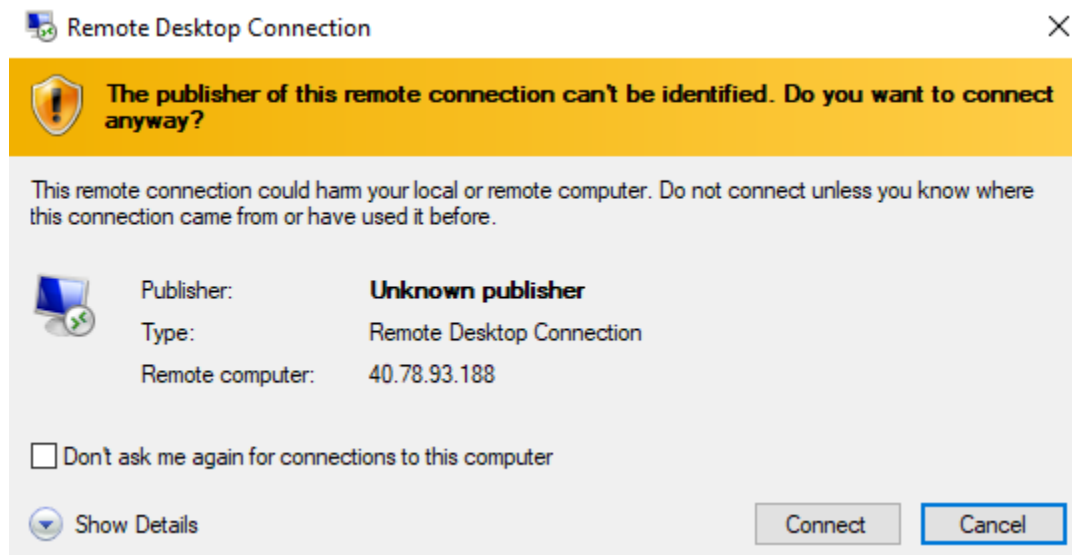
Step 6.1: Click on **Connect** and select **RDP**



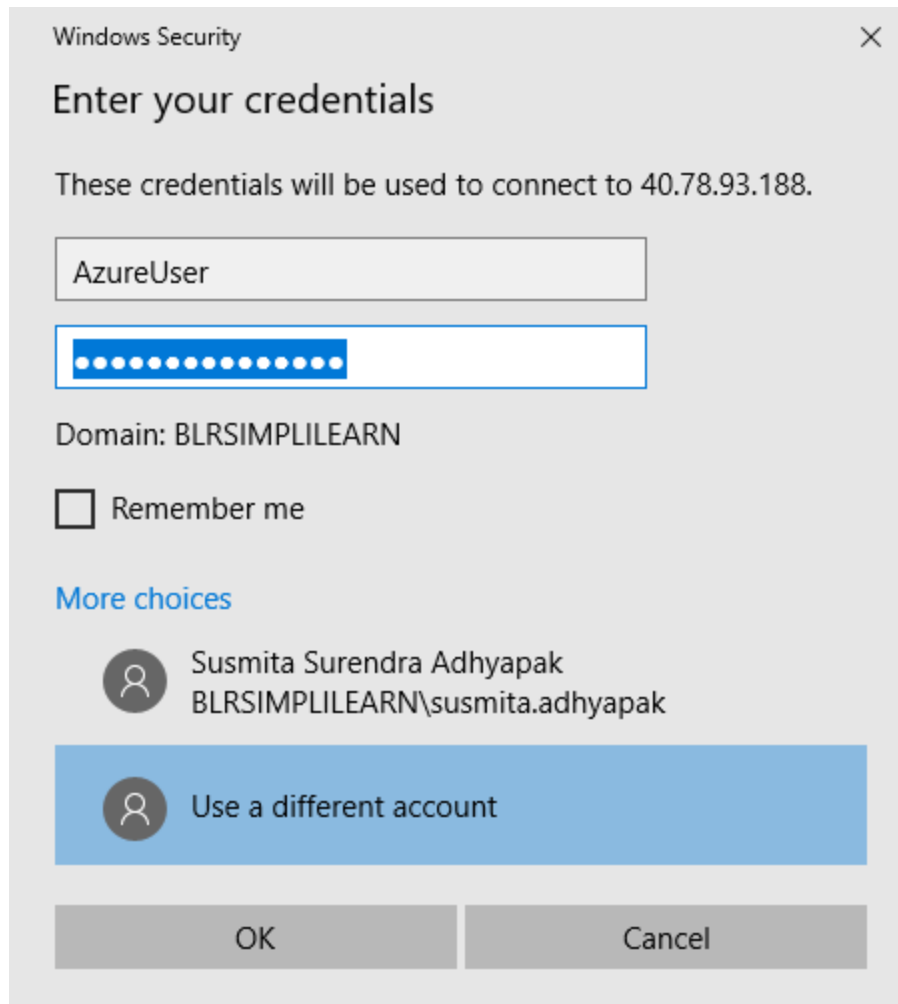
The screenshot shows the Microsoft Azure portal interface. The top navigation bar includes the 'Microsoft Azure' logo, a search bar, and user information for 'susmita.adhyapak_simpli...'. The main content area displays the 'SimpliVM' virtual machine page. On the left, a sidebar lists various management options: Overview, Activity log, Access control (IAM), Tags, Diagnose and solve problems, Settings, Networking, Connect, Disks, Size, Security, Advisor recommendations, Extensions, and Continuous delivery. The 'Connect' option is highlighted. The main panel shows the 'Connect' tab with a search bar and a list of connection methods: RDP, SSH, and Bastion. The 'RDP' method is selected, and a dropdown menu shows the available RDP files for connection. The right side of the panel displays the VM's configuration details, including the Subscription ID, Computer name, Operating system, Size, and various IP addresses. At the bottom, there are three performance metrics: CPU (average), Network (total), and Disk bytes (total).

Step 6.2: Click on **Download RDP file**. It will download the created VM in your system.

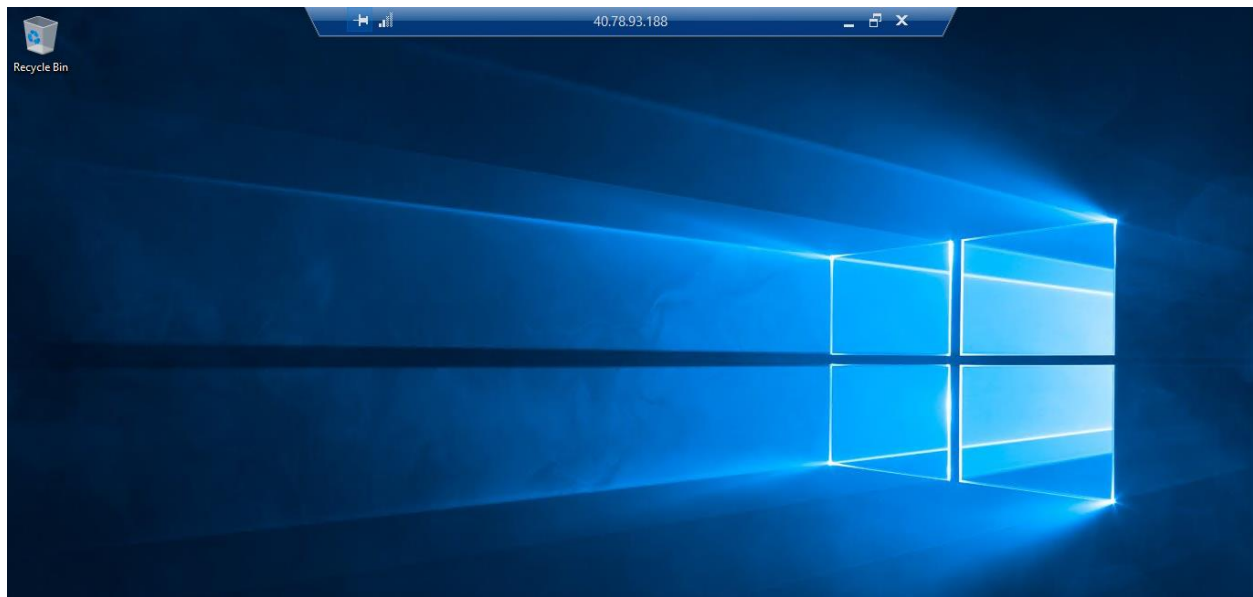
Step 6.3: Open the downloaded VM. Click on **Connect**



Step 6.4: Enter the credentials to login into VM and click on **OK**

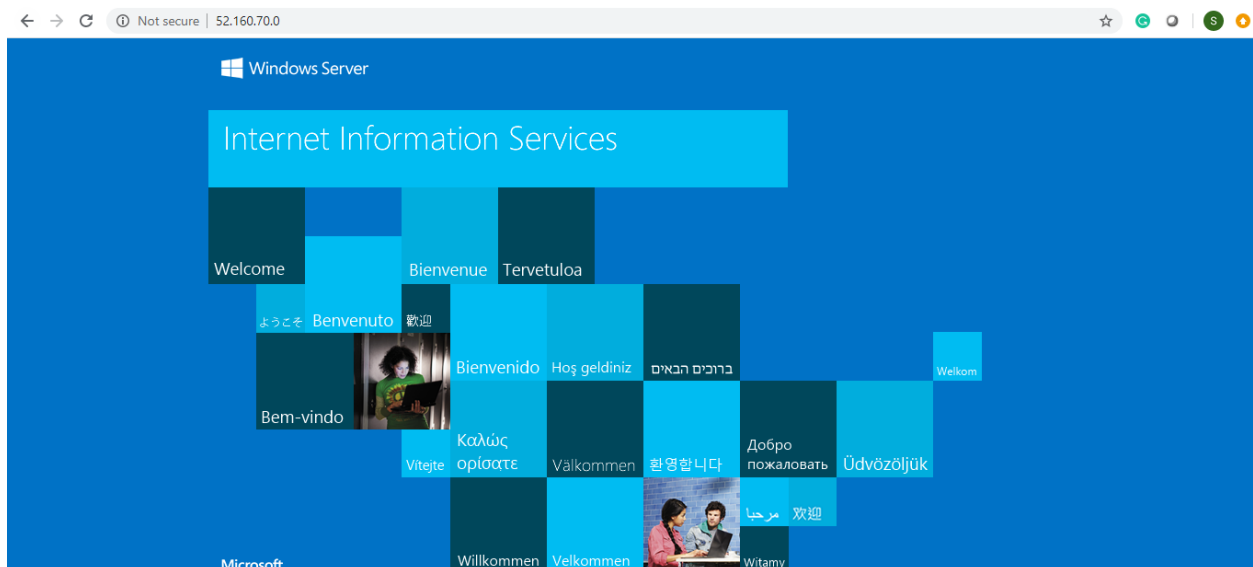


Step 6.5: This will open the VM in your system.



Step 7: Deploy your application on the web server that you have created within the virtual machine.

Step 7.1: In the portal, select the VM and in the overview of the VM, use the Click to copy button to the right of the IP address to copy it and paste it into a browser tab. The default IIS welcome page will open, and should look like this:



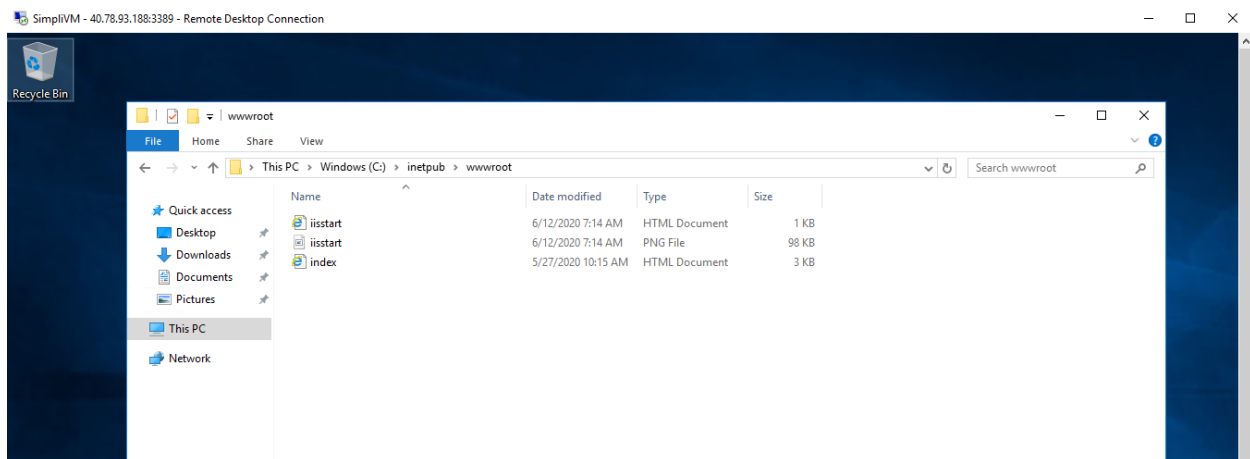
Step 7.2: Open the powershell and type the following command:

Install-WindowsFeature -name Web-Server -IncludeManagementTools

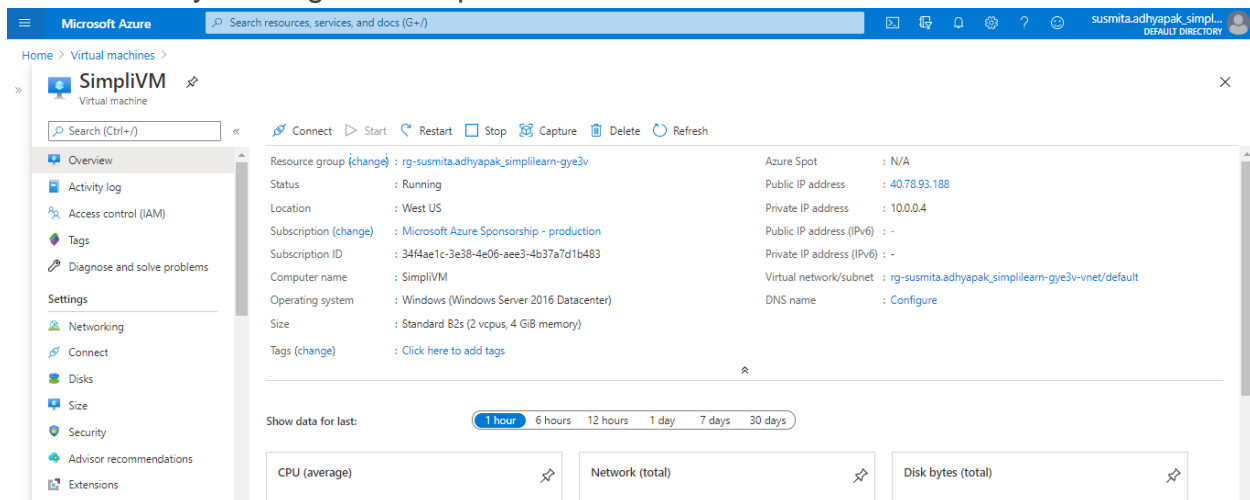
```
Administrator: Windows PowerShell
Windows PowerShell
Copyright (C) 2016 Microsoft Corporation. All rights reserved.

PS C:\Users\AzureUser> Install-WindowsFeature -name Web-Server -IncludeManagementTools
```

Step 7.3: The above command will create an inetpub folder in your C drive. Go to C:\inetpub\wwwroot and copy-paste the index.html file of your application which you want to deploy here:



Step 7.4: Copy and paste the public IP address of the created VM in the browser and you will get the output



Welcome to Ming's Diner!

Experience the art of Chinese dining.

[Tell Me More!](#)

About Us

We believe that there is no greater love than the love for food and when it comes to taste there is nothing like Chinese food. Started in 1960, our goal is to serve authentic Chinese, Cantonese and Thai food, catering to all your needs without burning a hole in your pocket.

Chow Mein



Made using authentic Cantonese recipes, our varieties of Chow mein are a favourite among the hordes of our customers.

Sushi



This traditional Japanese dish redefined with a blend of Chinese seasoning is another crowd favourite at Ming's.

Dumplings



At Ming's you'll find dumplings for every mood and every whim. Filled with meat, fish, cheese, vegetables, fruits or sweets, our broad range of dumplings are sure to make your mouth water.

Get in Touch!

Name

Step 8: Repeat steps 2 to 6 to create multiple deployments of your application in different regions so that you can meet the global traffic demand

Step 9: To make sure that traffic coming from different parts of the world is load balanced at DNS level, create a Traffic Manager Profile

Step 9.1: Click on the Public IP address of the created VM

Step 9.2: Enter the DNS name and click on **Save**

The screenshot shows the Microsoft Azure portal interface. The top navigation bar includes the Microsoft Azure logo, a search bar, and user information. The left sidebar contains navigation links for Home, Overview, Activity log, Access control (IAM), Tags, Settings, Configuration, Properties, Locks, Export template, Monitoring, Diagnostic settings, and Logs. The main content area displays the configuration for a Public IP address named 'SimpliVM-ip'. The configuration is set to Dynamic with an IP address of 40.78.93.188 and an idle timeout of 4 minutes. The DNS name label is set to 'onlinemovie'. A table at the bottom shows the subscription, DNS zone, name, type, and TTL for the configuration.

Subscription	DNS zone	Name	Type	TTL
No results.				

Step 9.3: In the search window, search for Traffic Manager Profile. Click on **Add** to create a new traffic manager profile

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

Home > Traffic Manager profiles

Default Directory

+ Add Manage view Refresh Export to CSV Assign tags Feedback Leave preview

Filter by name... Subscription == all Resource group == all Location == all Add filter

Step 9.4: Provide the required information and click on **Create** to create the Traffic Manager Profile

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

Home > Traffic Manager profiles > Create Traffic Manager profile

Name * onlineMovieTrafficManager .trafficmanager.net

Routing method Performance

Subscription * Microsoft Azure Sponsorship - product...

Resource group * rg-susmita.adhyapak_simplilearn-gye3v Create new

Resource group location West US

Create Automation options

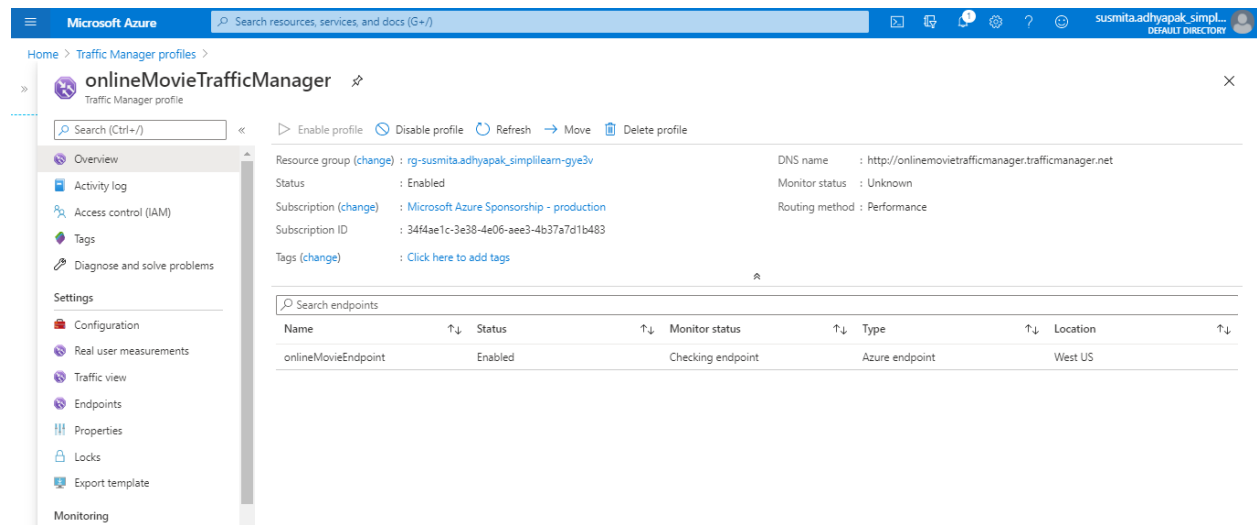
Step 10: Create endpoints in the traffic manager corresponding to the public IP of each virtual machine that you have created.

Step 10.1: Go to the created Traffic Manager Profile

Step 10.2: Click on **Endpoints** and click on **Add** to add new endpoints

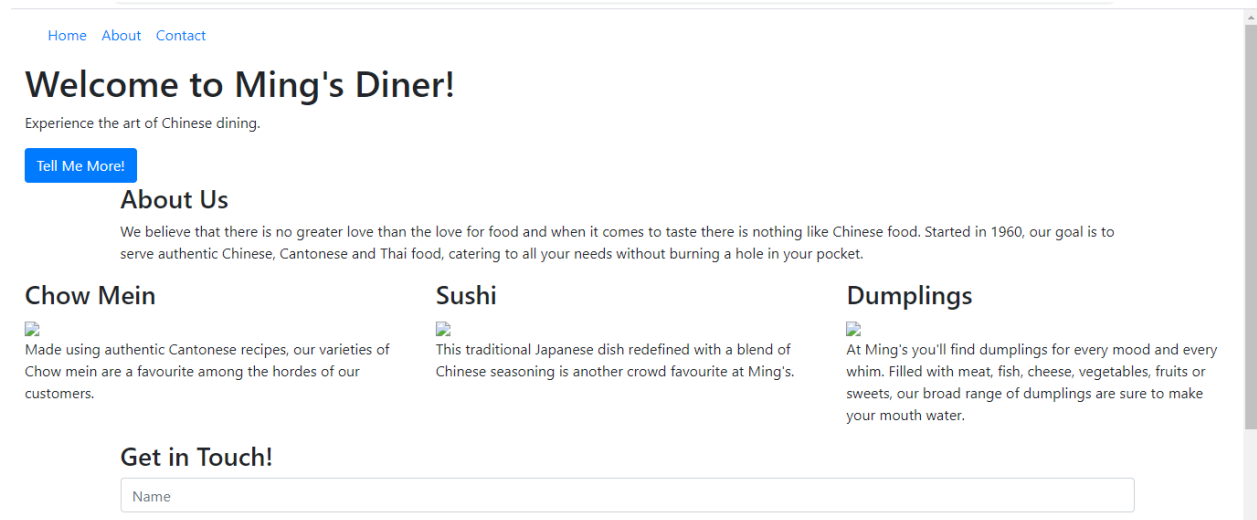
Step 10.3: Provide the required information and click on **Add**

Step 10.4: Copy and paste the DNS name link in the web browser and you'll get the output



The screenshot shows the Microsoft Azure portal interface. The top navigation bar includes the Microsoft Azure logo, a search bar, and user information. The main content area displays the 'onlineMovieTrafficManager' profile under 'Traffic Manager profiles'. The left sidebar contains navigation links for Overview, Activity log, Access control (IAM), Tags, Diagnose and solve problems, Settings, Configuration, Real user measurements, Traffic view, Endpoints, Properties, Locks, Export template, and Monitoring. The main content area shows the profile details, including the Resource group (rg-susmita.adhyapak_simplilearn-gye3v), Status (Enabled), Subscription (Microsoft Azure Sponsorship - production), and Subscription ID (34f4ae1c-3e38-4e06-aaa3-4b37a7d1b483). The DNS name is listed as http://onlinemovietrafficmanager.trafficmanager.net. Below the profile details, there is a table of endpoints.

Name	Status	Monitor status	Type	Location
onlineMovieEndpoint	Enabled	Checking endpoint	Azure endpoint	West US



The screenshot shows the Ming's Diner website. The header includes links for Home, About, and Contact. The main heading is 'Welcome to Ming's Diner!' with a subheading 'Experience the art of Chinese dining.' and a 'Tell Me More!' button. The 'About Us' section describes the restaurant's mission to serve authentic Chinese, Cantonese, and Thai food. Below this, there are three columns for 'Chow Mein', 'Sushi', and 'Dumplings', each with a description and a placeholder image. At the bottom, there is a 'Get in Touch!' section with a form for entering a name.

Chow Mein
Made using authentic Cantonese recipes, our varieties of Chow mein are a favourite among the hordes of our customers.

Sushi
This traditional Japanese dish redefined with a blend of Chinese seasoning is another crowd favourite at Ming's.

Dumplings
At Ming's you'll find dumplings for every mood and every whim. Filled with meat, fish, cheese, vegetables, fruits or sweets, our broad range of dumplings are sure to make your mouth water.

Get in Touch!

Name

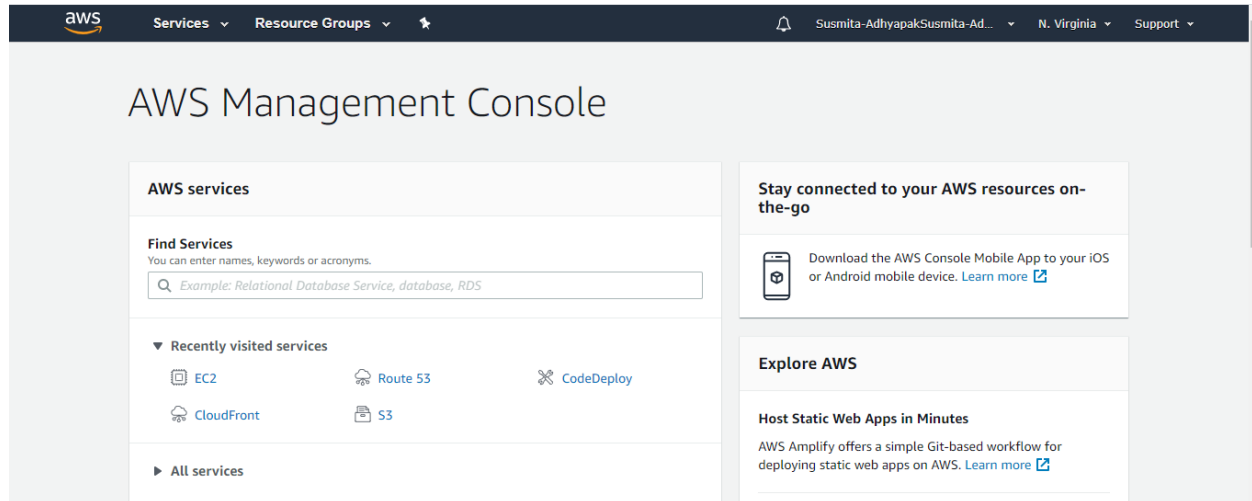
Step 11: Optionally, if you want to add the application in your own domain, you can configure the traffic manager to point to a custom domain.

Step 12: As good practice, follow the principle of least privilege so that you give access to the services that need to be accessed within the Azure portal

AWS:

Approach 1:

Step 1: Log into the AWS console

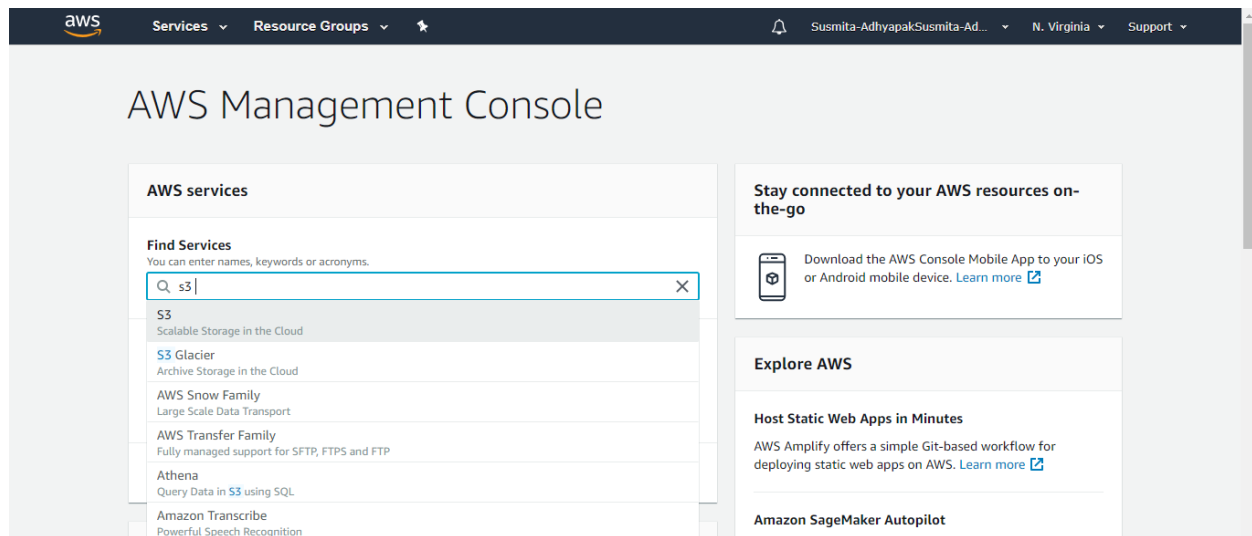


Step 2: Before creating the resources, make sure you apply cost allocation tags to resources so that you can keep a track of billing later on.

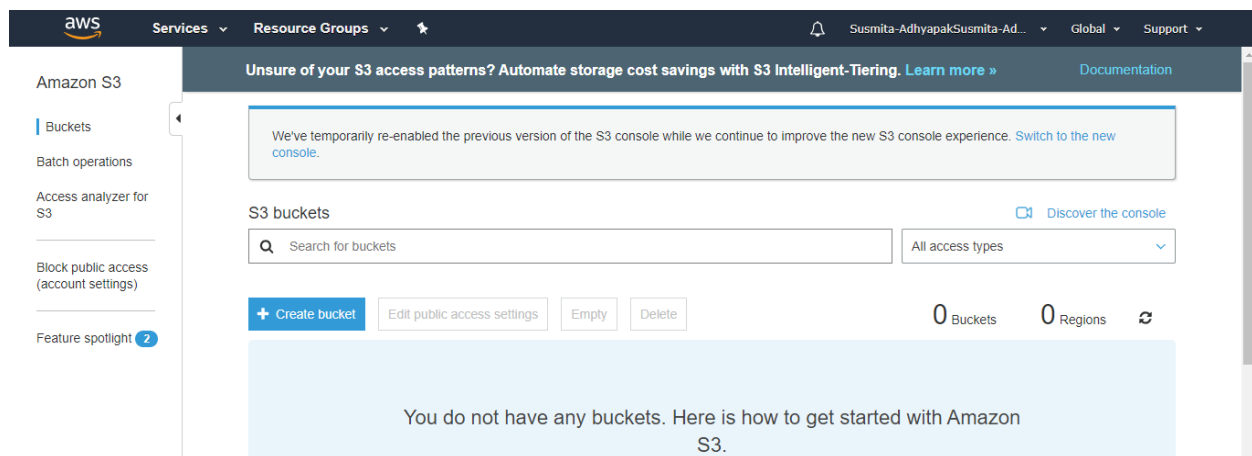
Step 3: To begin with, create Route 53 and add a hosted zone if you have your own domain. This is an optional step to configure a custom domain for your web app.

Step 4: Create an S3 bucket.

Step 4.1: In the search window, search for S3 service



Step 4.2: Click on **Create bucket**



Step 4.3: Provide the bucket name, select the region, and click on **Next**

Create bucket

1 Name and region 2 Configure options 3 Set permissions 4 Review

Name and region

Bucket name ⓘ

cloudcapstone123

Region

US East (N. Virginia) ▼

Copy settings from an existing bucket

You have no buckets0 Buckets ▼

Create Cancel Next

Step 4.4: In the Set permissions section, uncheck the box of Block all public access and acknowledge the terms and click on **Next**

Create bucket

1 Name and region 2 Configure options 3 Set permissions 4 Review

⚠ Disabling Block all public access may result in this bucket and the objects within becoming public
 AWS recommends that you block all public access to your bucket, unless public access is required for specific and verified use cases such as static website hosting.

☒ I acknowledge that the current settings may result in this bucket and the objects within becoming public

☐ **Block all public access**
 Turning this setting on is the same as turning on all four settings below. Each of the following settings are independent of one another.

- ☐ **Block public access to buckets and objects granted through new access control lists (ACLs)**
 S3 will block public access permissions applied to newly added buckets or objects, and prevent the creation of new public access ACLs for existing buckets and objects. This setting doesn't change any existing permissions that allow public access to S3 resources using ACLs.
- ☐ **Block public access to buckets and objects granted through any access control lists (ACLs)**
 S3 will ignore all ACLs that grant public access to buckets and objects.
- ☐ **Block public access to buckets and objects granted through new public bucket or access point policies**

Previous Next

Step 4.5: Click on **Create bucket**

Create bucket

✓ Name and region

✓ Configure options

✓ Set permissions

4 Review

Server access logging

Disabled

Tagging

0 Tags

Object-level logging

Disabled

Default encryption

None

CloudWatch request metrics

Disabled

Object lock

Disabled

Permissions

Edit

Block all public access

Off

Block public access to buckets and objects granted through *new* access control lists (ACLs)

Off

Block public access to buckets and objects granted through *any* access control lists (ACLs)

Off

Previous

Create bucket

Step 4.6: The created bucket will be visible in the portal

aws

Services

Resource Groups

Susmita-AdhyapakSusmita-Ad...

Global

Support

Amazon S3

Buckets

Batch operations

Access analyzer for S3

Block public access (account settings)

Feature spotlight 2

Unsure of your S3 access patterns? Automate storage cost savings with S3 Intelligent-Tiering. [Learn more »](#)

Documentation

We've temporarily re-enabled the previous version of the S3 console while we continue to improve the new S3 console experience. [Switch to the new console.](#)

Discover the console

S3 buckets

Search for buckets

All access types

+ Create bucket

Edit public access settings

Empty

Delete

1 Buckets

1 Regions

Bucket name

Access

Region

Date created

cloudcapstone123

Objects can be public

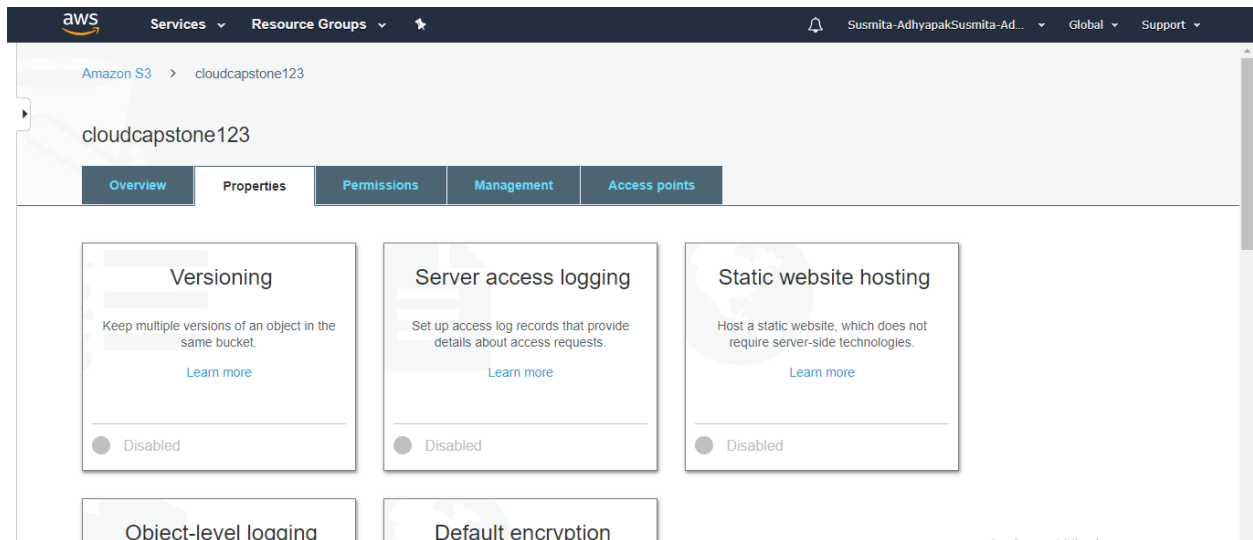
US East (N. Virginia)

Jun 15, 2020 12:47:33 PM GMT+0530

Step 5: In the properties of S3 bucket, configure the S3 bucket to enable Static website hosting

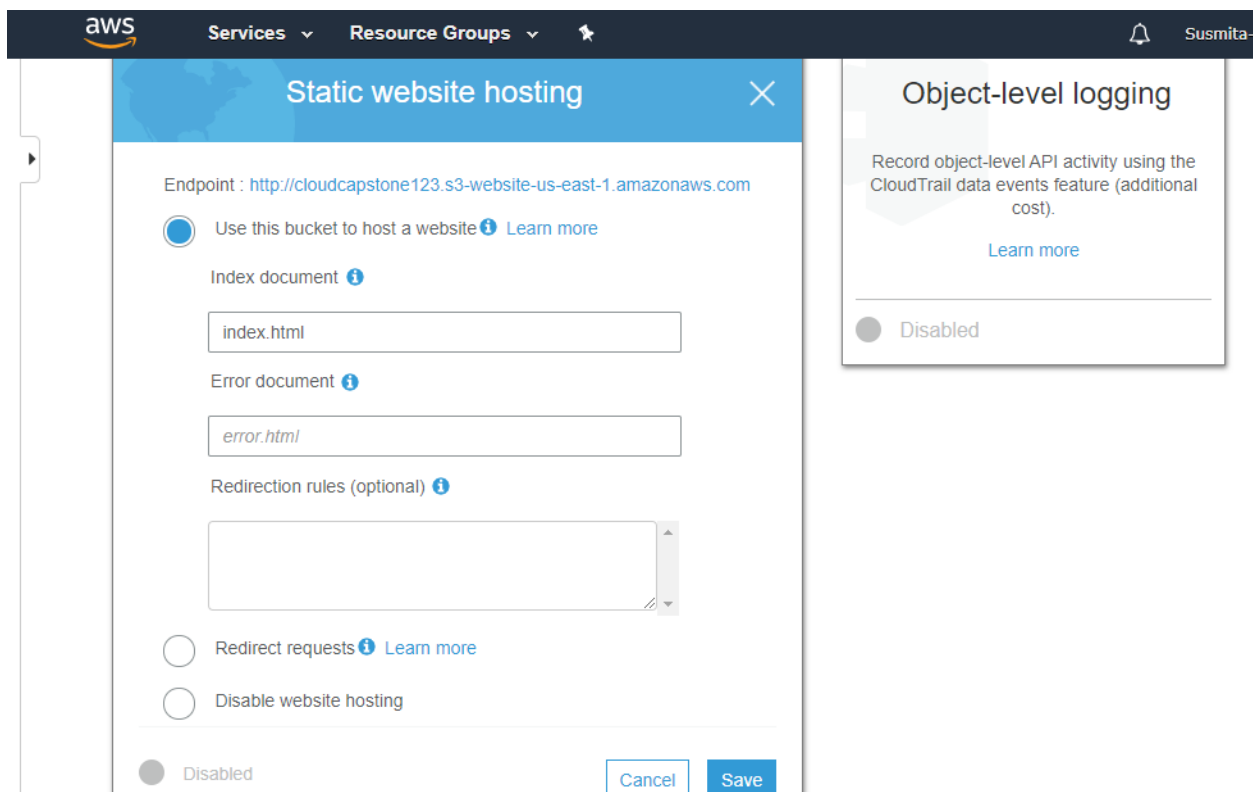
Step 5.1: Click on the created bucket

Step 5.2: Go to **Properties**



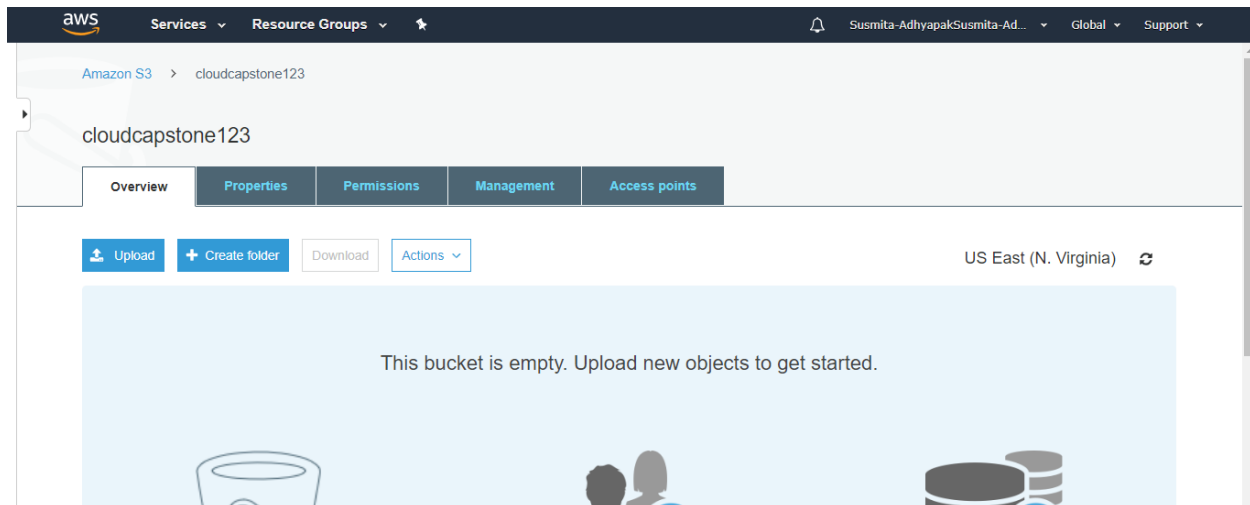
Step 5.3: Select Static web hosting

Step 5.4: Select **Use this bucket to host a website**, provide the required information and click on **Save**

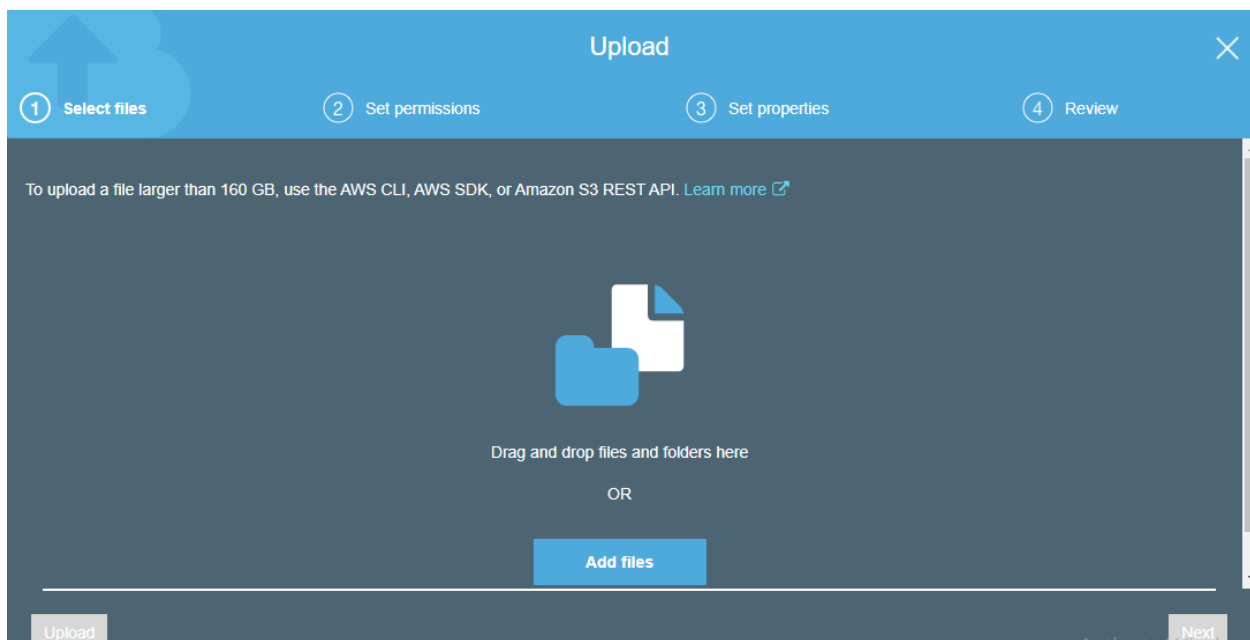


Step 6: Upload your static content (web app files) to the S3 bucket

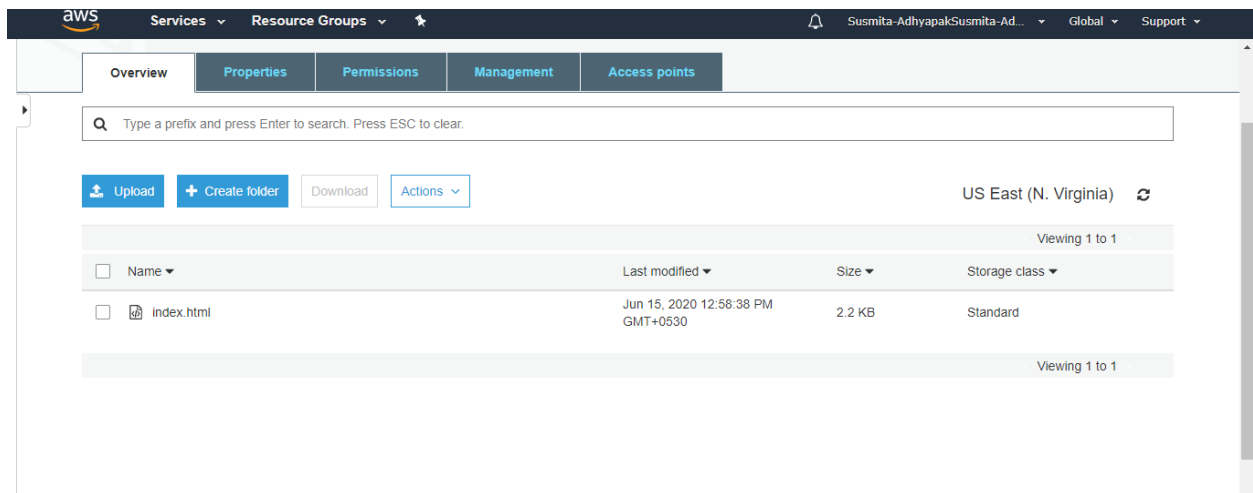
Step 6.1: Go to Overview tab of the created bucket and click on **Upload**



Step 6.2: Select the files of your application which you want to deploy and click on **Next** and click on **Upload**



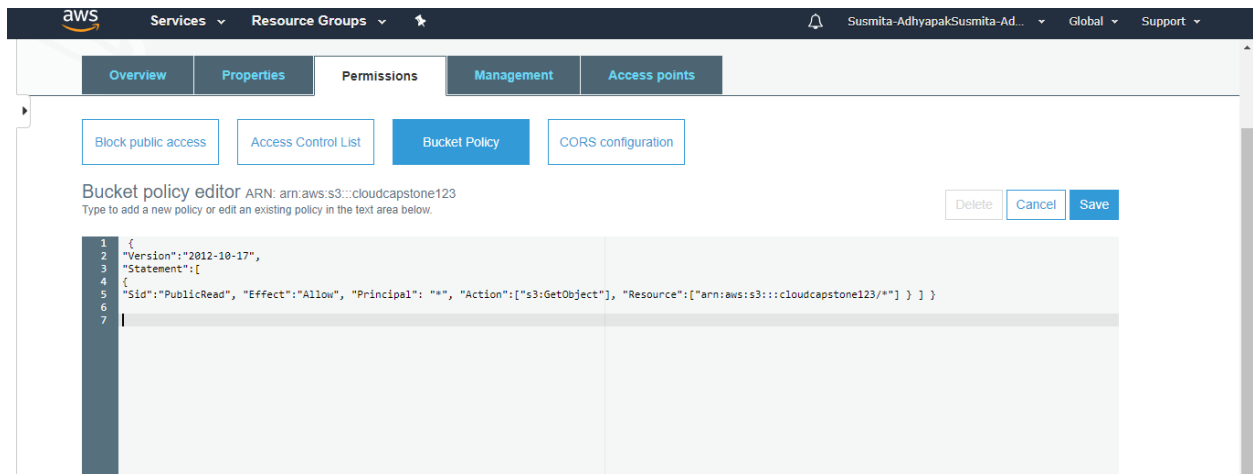
Step 6.3: This will add the files of your application in the S3 bucket



Step 7: Configure permissions in S3 and add the below bucket policy to give read only access to the static web app endpoint

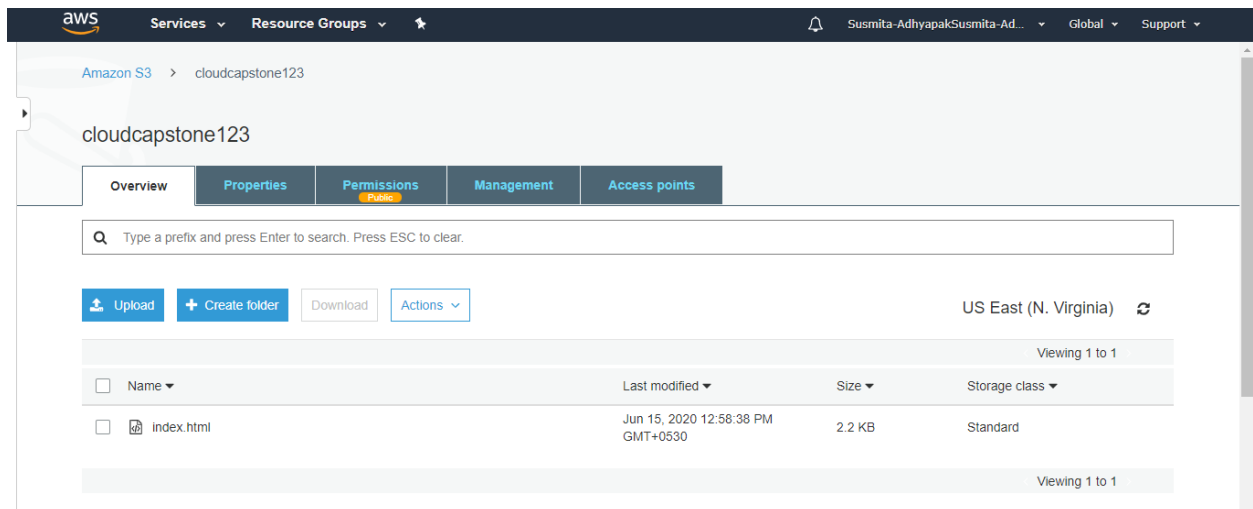
Step 7.1: Go to **Permissions**, click on **Bucket policy**, add the following code there and click on **Save**

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Sid": "PublicRead", "Effect": "Allow", "Principal": "*",
      "Action": ["s3:GetObject"],
      "Resource": ["arn:aws:s3:::cloudcapstone123/*"] } ] }
```

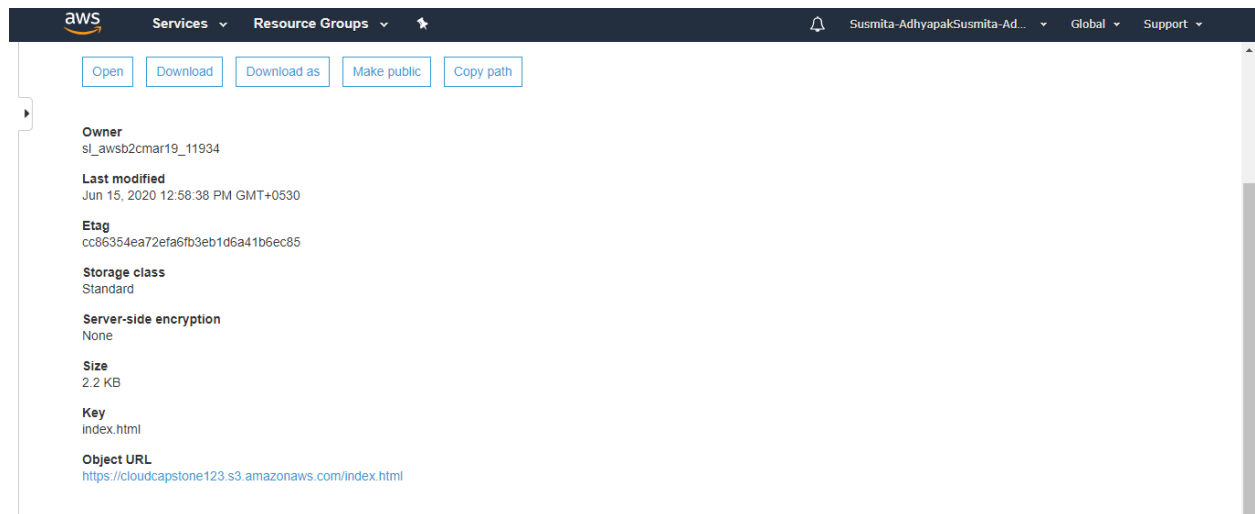


Step 8: Hit the web app endpoint to check if the application is online

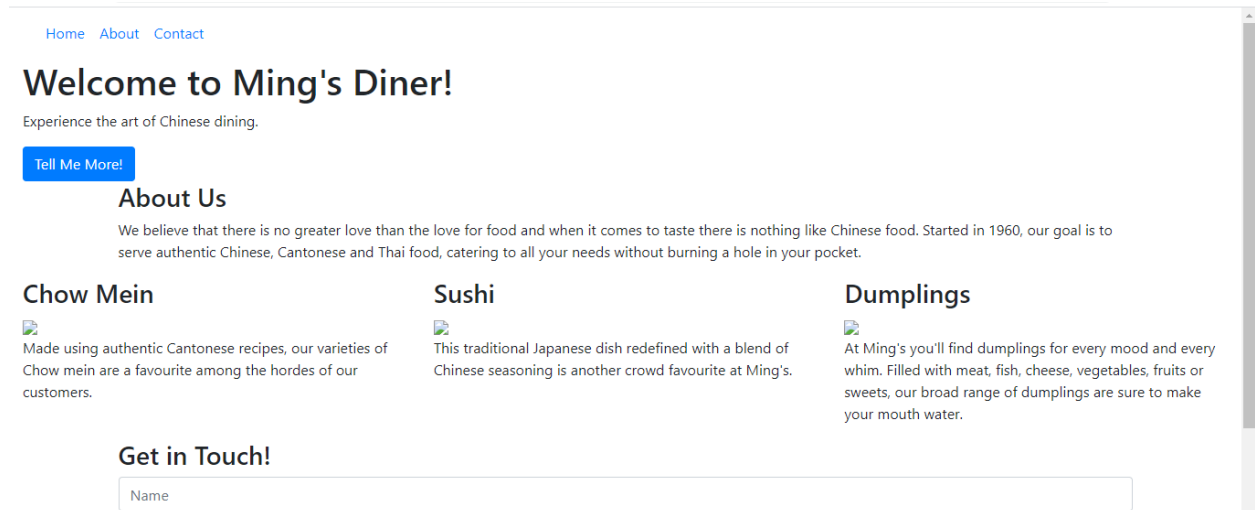
Step 8.1: Click on the Overview tab of the created bucket and click on the uploaded file



Step 8.2: Click on the **Object URL**

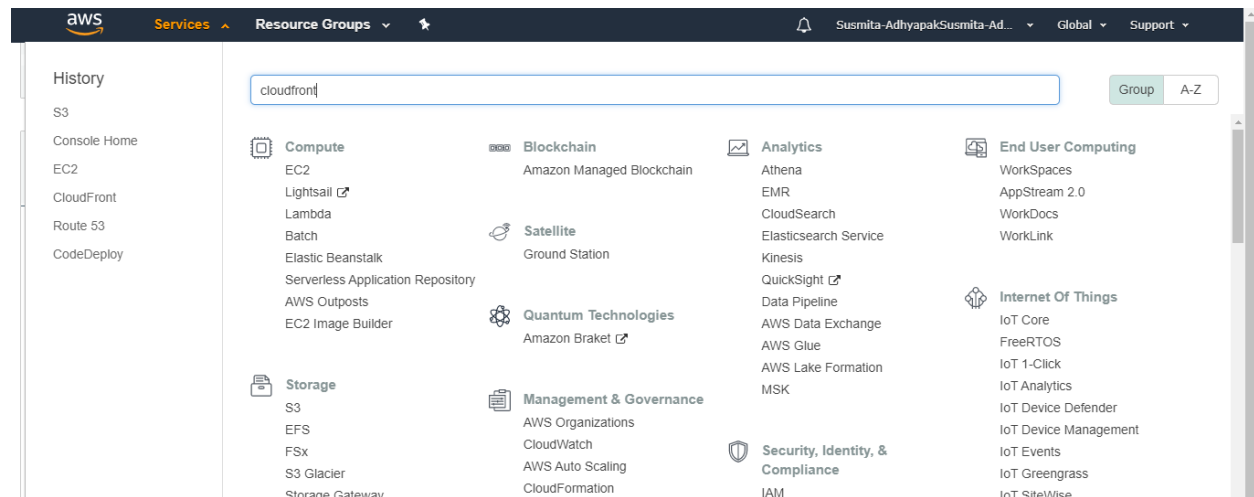


Step 8.3: Your application will start running.

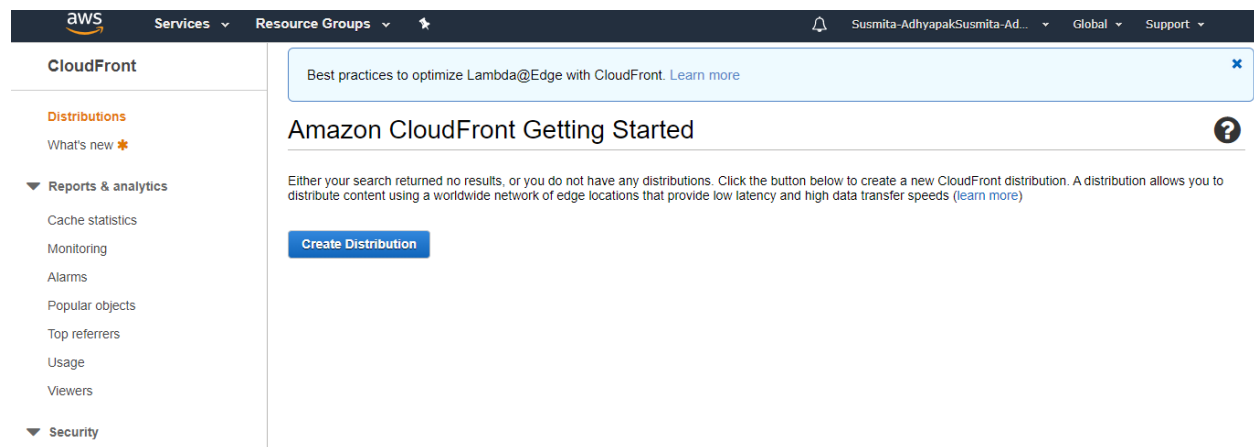


Step 9: Now create a CloudFront distribution corresponding to the static web app endpoint

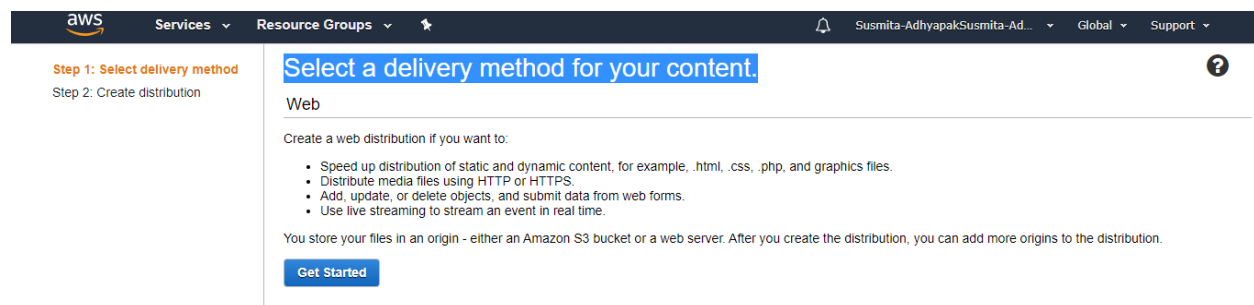
Step 9.1: Go to services and search for CloudFront



Step 9.2: Click on **Create Distribution**



Step 9.3: Select a delivery method for your content as Web and click on Get Started



Step 9.4: Provide the Origin Domain Name and Origin ID

Create Distribution

Origin Settings

Origin Domain Name: cloudcapstone123.s3.amazonaws.com ⓘ

Origin Path: — Amazon S3 Buckets — cloudcapstone123.s3.amazonaws.com ⓘ

Origin ID: S3-cloudcapstone123 ⓘ

Restrict Bucket Access: ☐ Yes ☒ No ⓘ

Origin Connection Attempts: 3 ⓘ

Origin Connection Timeout: 10 ⓘ

Origin Custom Headers

Header Name	Value

Default Cache Behavior Settings

Step 9.5: Keep all the values as default and click on **Create Distribution**

Advanced Settings

Supported HTTP Versions: ☒ HTTP/2, HTTP/1.1, HTTP/1.0 ⓘ ☐ HTTP/1.1, HTTP/1.0

Default Root Object: ⓘ

Logging: ☐ On ☒ Off ⓘ

Bucket for Logs: ⓘ

Log Prefix: ⓘ

Cookie Logging: ☐ On ☒ Off ⓘ

Enable IPv6: ☒ ⓘ [Learn more](#)

Comment: ⓘ

Distribution State: ☒ Enabled ⓘ ☐ Disabled

[Cancel](#) [Back](#) [Create Distribution](#)

Step 9.6: These steps will create your CloudFront distribution

Step 10: Configure the CloudFront distribution to point to your domain by editing the configuration and adding the domain name in Alternate Domain Name field.

Step 10.1: Once the CloudFront service gets deployed, create a new file of .html extension in your system and copy the following content in it

```
<html>

  <head>My CloudFront Test</head>

  <body>

    <p>My text content goes here.</p>

    <p><img src=https://d1111111abcdef8.cloudfront.net/.html
alt="my test image"/>

  </body>

</html>
```

Step 10.2: Upload the same file in the created S3 bucket

Amazon S3 > cloudcapstone123

cloudcapstone123

Overview Properties Permissions **Public** Management Access points

Q Type a prefix and press Enter to search. Press ESC to clear.

Upload + Create folder Download Actions

US East (N. Virginia) ↻

Viewing 1 to 2

<input type="checkbox"/> Name ▾	Last modified ▾	Size ▾	Storage class ▾
<input type="checkbox"/> demo.html	Jun 15, 2020 1:23:53 PM GMT+0530	203.0 B	Standard
<input type="checkbox"/> index.html	Jun 15, 2020 12:58:38 PM GMT+0530	2.2 KB	Standard

Step 10.3: Click on the newly uploaded file, and go to the Object URL

Open Download Download as Make public Copy path

Owner
sl_awsb2cmar19_11934

Last modified
Jun 15, 2020 1:23:53 PM GMT+0530

Etag
ca1f0da0b8a6784b50a6b33be7840e14

Storage class
Standard

Server-side encryption
None

Size
203.0 B

Key
demo.html

Object URL
<https://cloudcapstone123.s3.amazonaws.com/demo.html>

cloudcapstone123.s3.amazonaws.com/demo.html

My CloudFront Test

My text content goes here.

my test image

Step 11: Repeat Steps 5 to 11 to create multiple deployments of your application in different regions so that you can meet the global traffic demand.

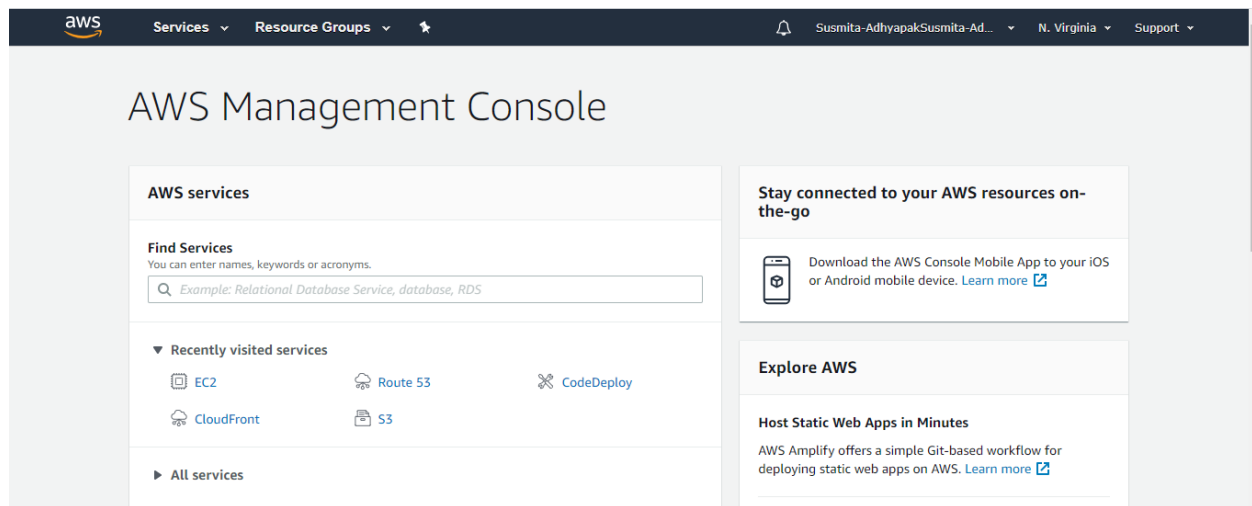
Step 12: Use the traffic flow editor to create traffic policy to route traffic to different endpoints across the globe

Step 13: As good practice, follow the principle of least privilege so that you give access to the services that need to be accessed within the AWS console.

AWS:

Approach 2:

Step 1: Log into the AWS console

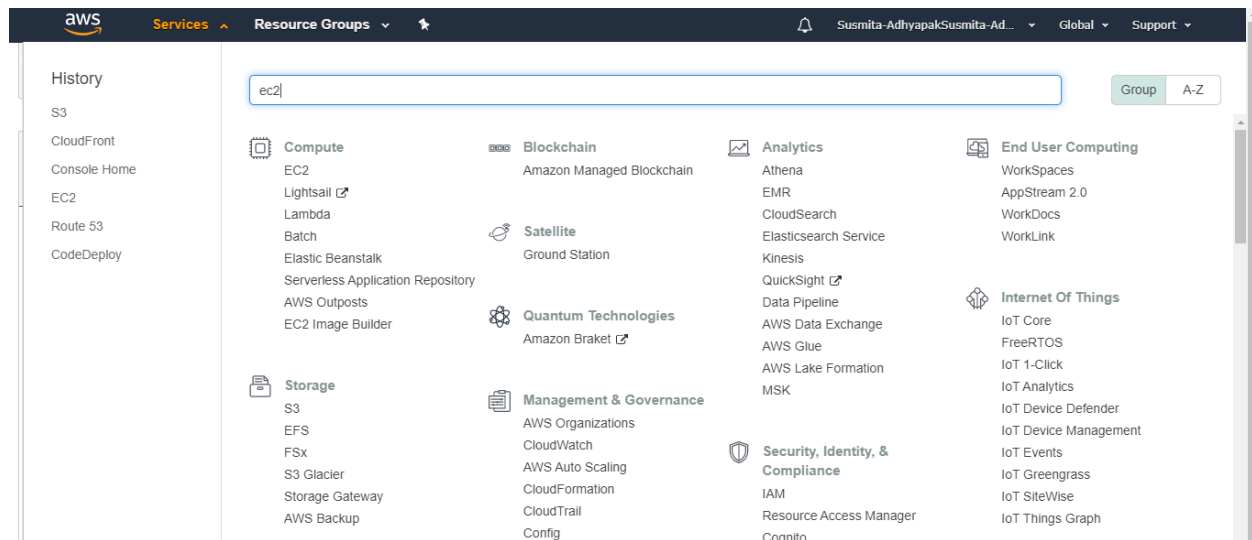


Step 2: Before creating the resources, make sure you apply cost allocation tags to resources so that you can keep a track of billing later on

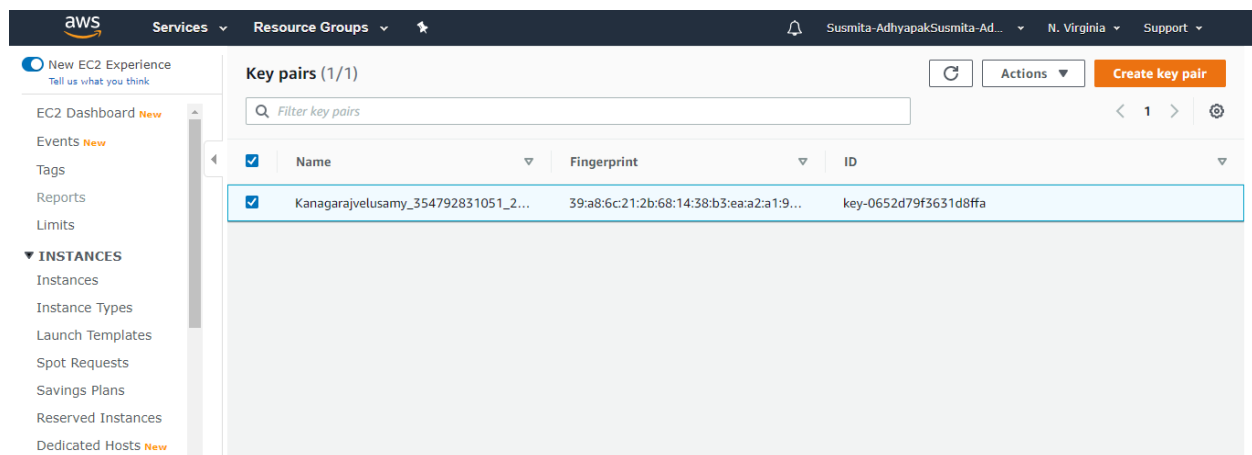
Step 3: To begin, create Route 53 and add a hosted zone if you have your own domain, this is an optional step to configure a custom domain for your web app

Step 4: Create an EC2 instance

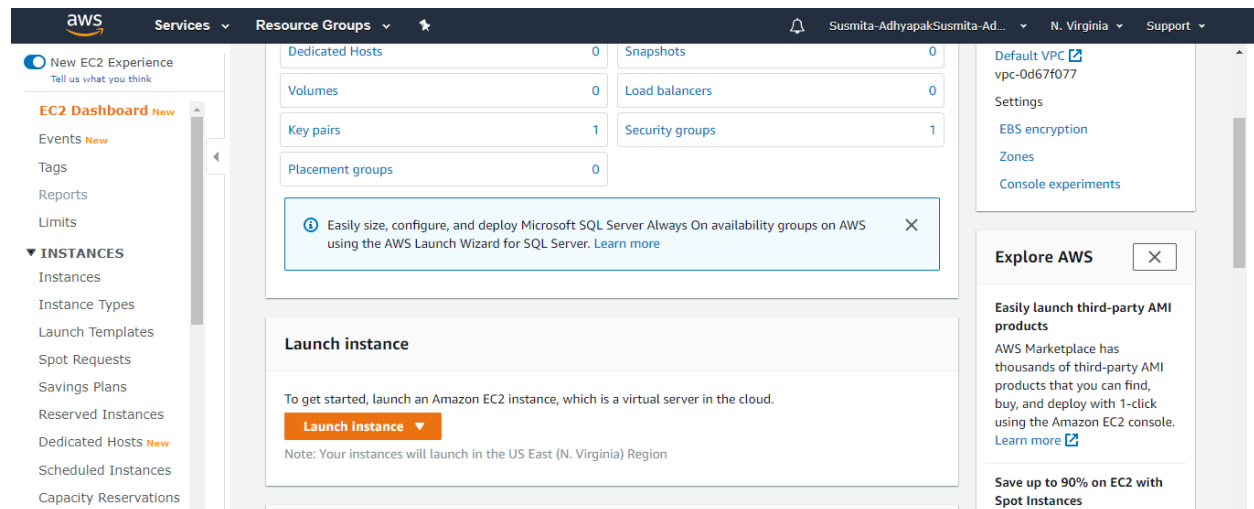
Step 4.1: In the search window, search for EC2



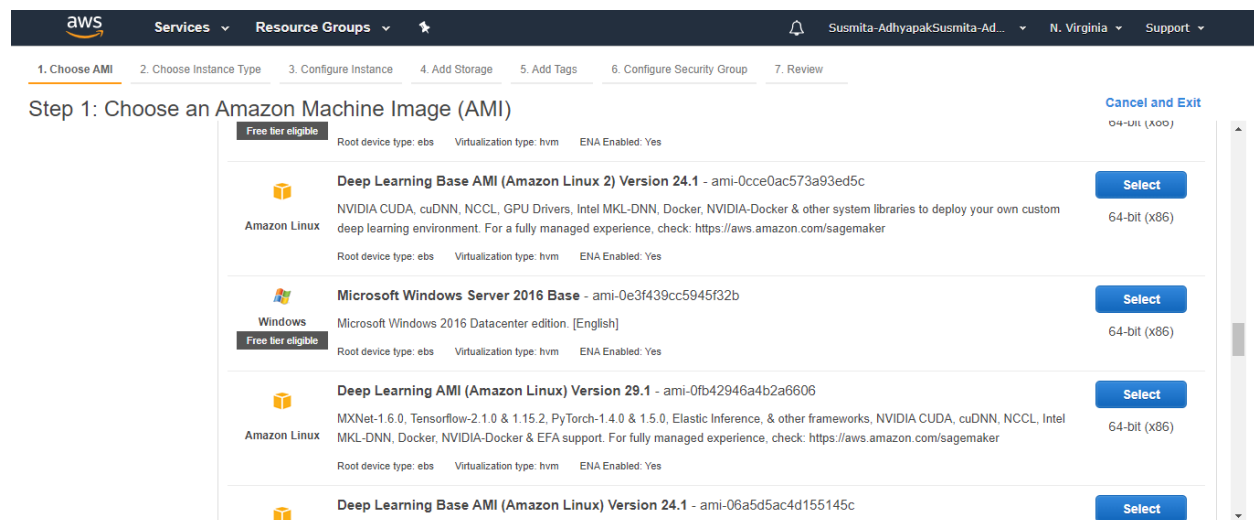
Step 4.2: In the EC2 instance, check whether a key-value pair is created or not. If not then create one



Step 4.3: Click on Launch instance



Step 4.4: Choose an Amazon Machine Image (AMI) (Free tier only) and click on **Select**



Step 4.5: Select a proper instance type (Select t2 micro) and click on **Next: Configure Instance Details**

Services
Resource Groups

Susmita-AdhyapakSusmita-Ad...
N. Virginia
Support

1. Choose AMI
2. Choose Instance Type
3. Configure Instance
4. Add Storage
5. Add Tags
6. Configure Security Group
7. Review

Step 2: Choose an Instance Type

Amazon EC2 provides a wide selection of instance types optimized to fit different use cases. Instances are virtual servers that can run applications. They have varying combinations of CPU, memory, storage, and networking capacity, and give you the flexibility to choose the appropriate mix of resources for your applications. [Learn more](#) about instance types and how they can meet your computing needs.

Filter by: All instance types Current generation Show/Hide Columns

Currently selected: t2.micro (Variable ECUs, 1 vCPUs, 2.5 GHz, Intel Xeon Family, 1 GiB memory, EBS only)

	Family	Type	vCPUs	Memory (GiB)	Instance Storage (GB)	EBS-Optimized Available	Network Performance	IPv6 Support
<input type="checkbox"/>	General purpose	t2.nano	1	0.5	EBS only	-	Low to Moderate	Yes
<input checked="" type="checkbox"/>	General purpose	t2.micro <small>Free tier eligible</small>	1	1	EBS only	-	Low to Moderate	Yes
<input type="checkbox"/>	General purpose	t2.small	1	2	EBS only	-	Low to Moderate	Yes
<input type="checkbox"/>	General purpose	t2.medium	2	4	EBS only	-	Low to Moderate	Yes
<input type="checkbox"/>	General purpose	t2.large	2	8	EBS only	-	Low to Moderate	Yes

Cancel
Previous
Review and Launch
Next: Configure Instance Details

Step 4.6: In the EC2 dashboard, click on **Next: Add Storage**

Services
Resource Groups

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N. Virginia
Support

1. Choose AMI
2. Choose Instance Type
3. Configure Instance
4. Add Storage
5. Add Tags
6. Configure Security Group
7. Review

Step 3: Configure Instance Details

Auto-assign Public IP Use subnet setting (Enable)

Placement group ☐ Add instance to placement group

Capacity Reservation Open Create new Capacity Reservation

IAM role Simpli@123 Create new IAM role

Shutdown behavior Stop

Stop - Hibernate behavior ☐ Enable hibernation as an additional stop behavior

Enable termination protection ☐ Protect against accidental termination

Monitoring ☐ Enable CloudWatch detailed monitoring
Additional charges apply.

Tenancy Shared - Run a shared hardware instance
Additional charges may apply when launching Dedicated instances.

Elastic Inference ☐ Add an Elastic Inference accelerator
Additional charges apply.

Cancel
Previous
Review and Launch
Next: Add Storage

Step 4.7: Click on **Next: Add Tags**

Services
Resource Groups

Susmita-AdhyapakSusmita-Ad...
N. Virginia
Support

1. Choose AMI
2. Choose Instance Type
3. Configure Instance
4. Add Storage
5. Add Tags
6. Configure Security Group
7. Review

Step 4: Add Storage

Your instance will be launched with the following storage device settings. You can attach additional EBS volumes and instance store volumes to your instance, or edit the settings of the root volume. You can also attach additional EBS volumes after launching an instance, but not instance store volumes. [Learn more](#) about storage options in Amazon EC2.

Volume Type ⓘ	Device ⓘ	Snapshot ⓘ	Size (GiB) ⓘ	Volume Type ⓘ	IOPS ⓘ	Throughput (MB/s) ⓘ	Delete on Termination ⓘ	Encryption ⓘ
Root	/dev/sda1	snap-0726b711cf1c5ad43	30	General Purpose SSD (gp2) ▾	100 / 3000	N/A	<input checked="" type="checkbox"/>	Not Encrypt ▾

Add New Volume

Free tier eligible customers can get up to 30 GB of EBS General Purpose (SSD) or Magnetic storage. [Learn more](#) about free usage tier eligibility and usage restrictions.

Cancel
Previous
Review and Launch
Next: Add Tags

Step 4.8: Click on **Next: Configure Security Groups**

Services
Resource Groups

Susmita-AdhyapakSusmita-Ad...
N. Virginia
Support

1. Choose AMI
2. Choose Instance Type
3. Configure Instance
4. Add Storage
5. Add Tags
6. Configure Security Group
7. Review

Step 5: Add Tags

A tag consists of a case-sensitive key-value pair. For example, you could define a tag with key = Name and value = Webserver. A copy of a tag can be applied to volumes, instances or both. Tags will be applied to all instances and volumes. [Learn more](#) about tagging your Amazon EC2 resources.

Key (128 characters maximum)	Value (256 characters maximum)	Instances ⓘ	Volumes ⓘ
This resource currently has no tags			

Choose the [Add tag](#) button or [click to add a Name tag](#).
Make sure your [IAM policy](#) includes permissions to create tags.

Add Tag (Up to 50 tags maximum)

Cancel
Previous
Review and Launch
Next: Configure Security Group

Step 4.9: Click on **Review and Launch**

Services
Resource Groups

Susmita-AdhyapakSusmita-Ad...
N. Virginia
Support

1. Choose AMI
2. Choose Instance Type
3. Configure Instance
4. Add Storage
5. Add Tags
6. Configure Security Group
7. Review

Step 6: Configure Security Group

A security group is a set of firewall rules that control the traffic for your instance. On this page, you can add rules to allow specific traffic to reach your instance. For example, if you want to set up a web server and allow Internet traffic to reach your instance, add rules that allow unrestricted access to the HTTP and HTTPS ports. You can create a new security group or select from an existing one below. [Learn more](#) about Amazon EC2 security groups.

Assign a security group: ☒ Create a **new** security group
☐ Select an **existing** security group

Security group name:

Description:

Type	Protocol	Port Range	Source	Description
RDP	TCP	3389	Custom 0.0.0.0/0	e.g. SSH for Admin Desktop

[Add Rule](#)

Warning
Rules with source of 0.0.0.0/0 allow all IP addresses to access your instance. We recommend setting security group rules to allow access from known IP addresses only.

[Cancel](#)
[Previous](#)
[Review and Launch](#)

Step 4.10: Click on Launch

Services
Resource Groups

Susmita-AdhyapakSusmita-Ad...
N. Virginia
Support

1. Choose AMI
2. Choose Instance Type
3. Configure Instance
4. Add Storage
5. Add Tags
6. Configure Security Group
7. Review

Step 7: Review Instance Launch

Please review your instance launch details. You can go back to edit changes for each section. Click **Launch** to assign a key pair to your instance and complete the launch process.

Improve your instances' security. Your security group, launch-wizard-3, is open to the world.
Your instances may be accessible from any IP address. We recommend that you update your security group rules to allow access from known IP addresses only. You can also open additional ports in your security group to facilitate access to the application or service you're running, e.g., HTTP (80) for web servers. [Edit security groups](#)

AMI Details
Edit AMI

Microsoft Windows Server 2016 Base - ami-0e3f439cc5945f32b

Free tier eligible
Microsoft Windows 2016 Datacenter edition. [English]
Root Device Type: ebs Virtualization type: hvm

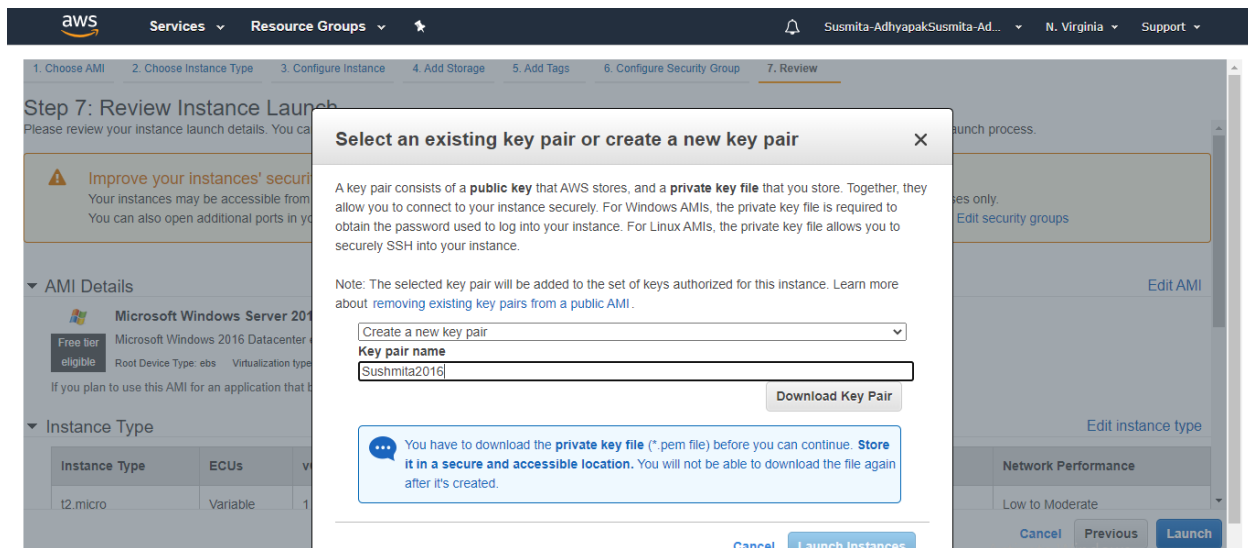
If you plan to use this AMI for an application that benefits from Microsoft License Mobility, fill out the [License Mobility Form](#). Don't show me this again

Instance Type
Edit instance type

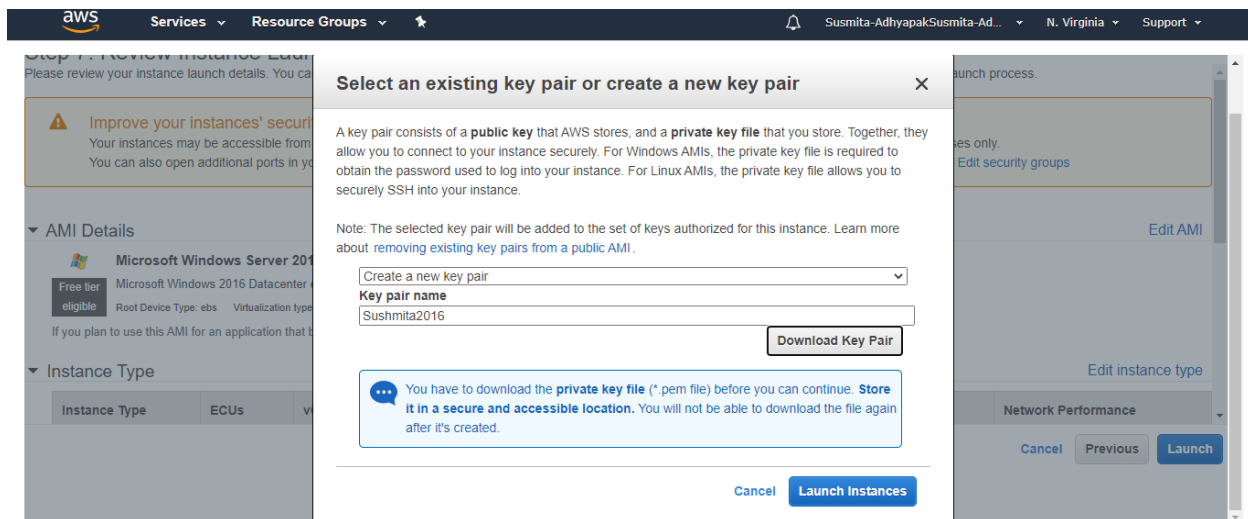
Instance Type	ECUs	vCPUs	Memory (GiB)	Instance Storage (GB)	EBS-Optimized Available	Network Performance
t2.micro	Variable	1	1	EBS only	-	Low to Moderate

[Activate](#)
[Cancel](#)
[Previous](#)
[Launch](#)

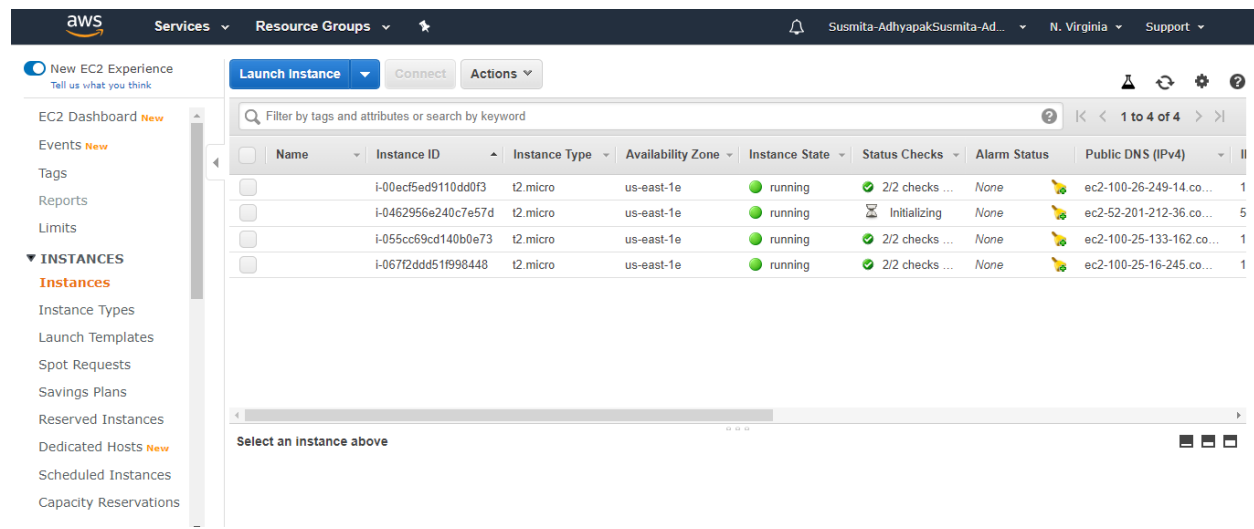
Step 4.11: Create a new key-pair, provide the name of the file and click on Download Key Pair



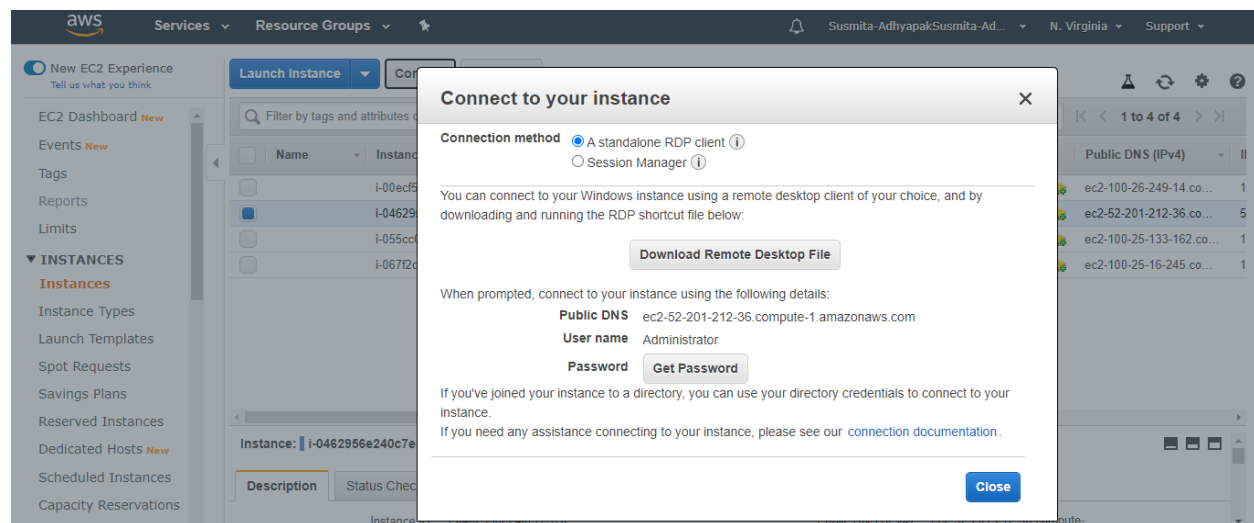
Step 4.12: Click on **Launch Instances**



Step 4.13: Go to the EC2 dashboard, select the created EC2 instance and click on **Connect**

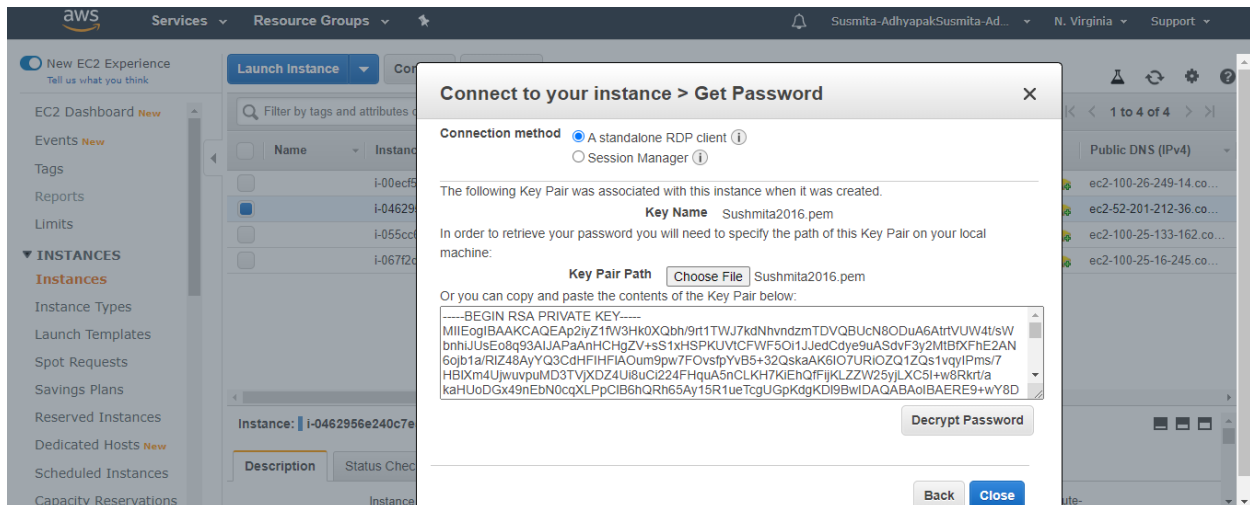


Step 4.14: Click on **Download Remote Desktop File**

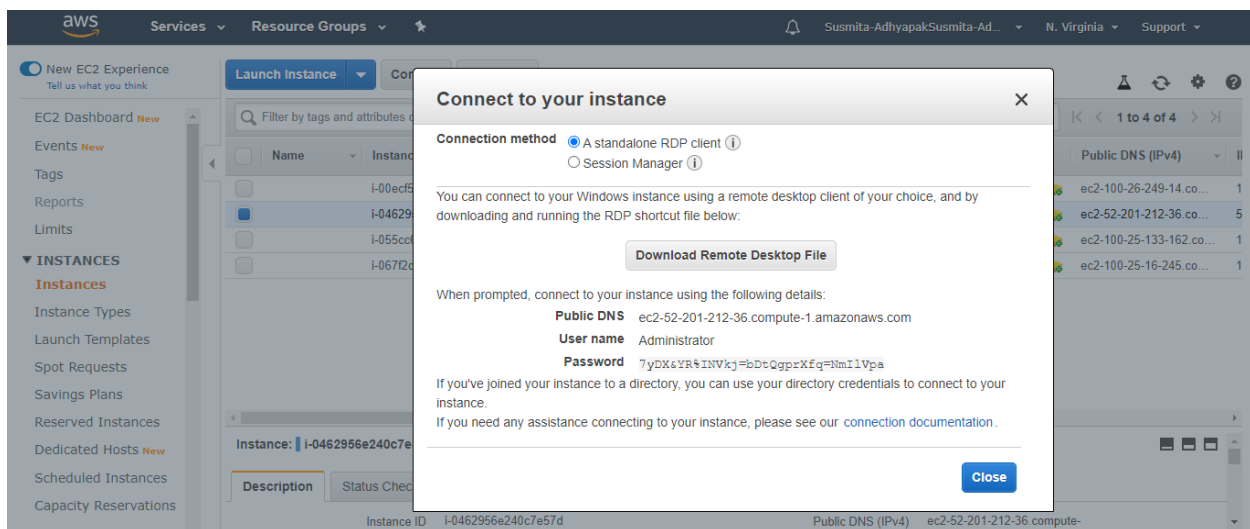


Step 4.15: Click on **Get Password**

Step 4.16: Browse to the Key Pair File you have downloaded using **Choose File** option



Step 4.17: Click on **Decrypt Password**



Step 4.18: Copy the decrypted password

Step 5: Make sure you have inbound traffic on port 80 and port 443 open

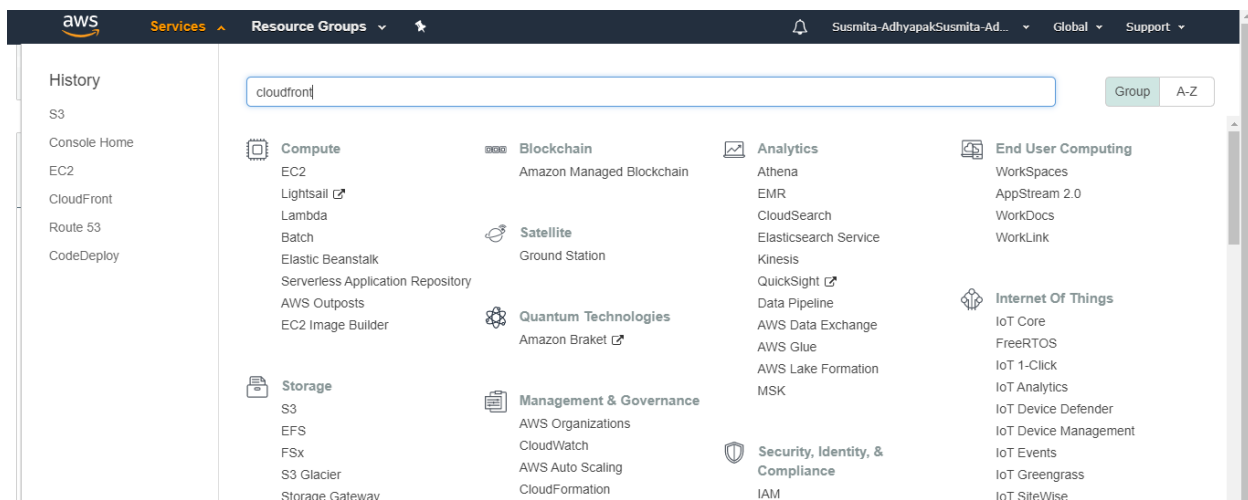
Step 6: Log into EC2 instance and spin up a web server of your choice on port 80

Step 7: Deploy your application on the web server that you have created within the virtual machine

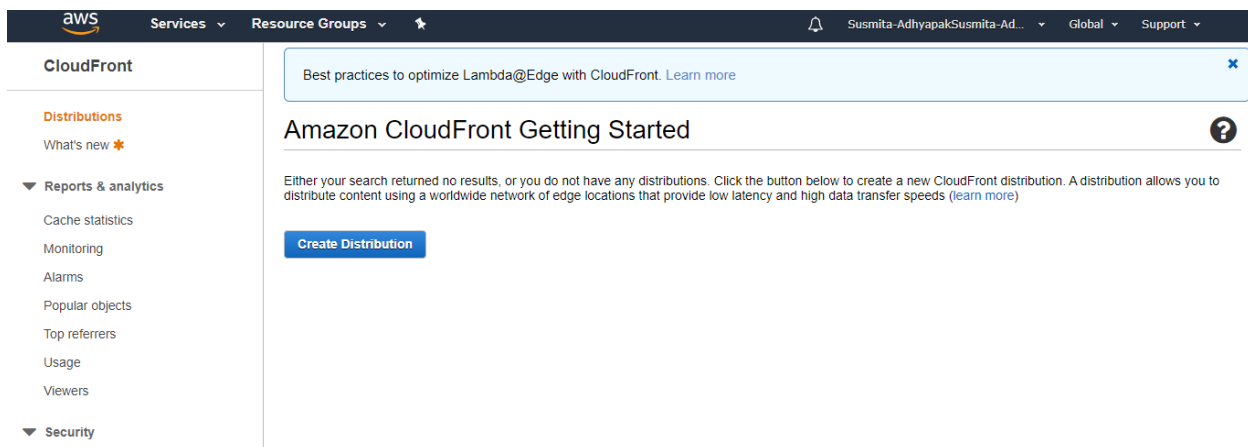
Step 8: Hit the Public IP of EC2 instance (web app endpoint) to check if the application is online

Step 9: Now create a CloudFront distribution corresponding to the static web app endpoint.

Step 9.1: Go to services and search for CloudFront



Step 9.2: Click on **Create Distribution**



Step 9.3: Select a delivery method for your content as Web and click on Get

Started

Select a delivery method for your content.

Step 1: Select delivery method
Step 2: Create distribution

Web

Create a web distribution if you want to:

- Speed up distribution of static and dynamic content, for example, .html, .css, .php, and graphics files.
- Distribute media files using HTTP or HTTPS.
- Add, update, or delete objects, and submit data from web forms.
- Use live streaming to stream an event in real time.

You store your files in an origin - either an Amazon S3 bucket or a web server. After you create the distribution, you can add more origins to the distribution.

[Get Started](#)

Step 9.4: Provide the Origin Domain Name (DNS name of the3 created EC2 instance) and Origin ID

Create Distribution

Step 1: Select delivery method
Step 2: Create distribution

Origin Settings

Origin Domain Name:

Origin Path:

Origin ID:

Restrict Bucket Access: ☐ Yes ☒ No

Origin Connection Attempts:

Origin Connection Timeout:

Origin Custom Headers

Header Name	Value
<input type="text"/>	<input type="text"/>

Default Cache Behavior Settings

Step 9.5: Keep all the values as default and click on **Create Distribution**

Step 1: Select delivery method
Step 2: Create distribution

Supported HTTP Versions ☒ HTTP/2, HTTP/1.1, HTTP/1.0
☐ HTTP/1.1, HTTP/1.0

Default Root Object

Logging ☐ On ☒ Off

Bucket for Logs

Log Prefix

Cookie Logging ☐ On ☒ Off

Enable IPv6 ☒ [Learn more](#)

Comment

Distribution State ☒ Enabled ☐ Disabled

[Cancel](#) [Back](#) [Create Distribution](#)

Step 9.6: These steps will create your CloudFront distribution.

CloudFront

Distributions
 What's new

Reports & analytics
 Cache statistics
 Monitoring
 Alarms
 Popular objects
 Top referrers
 Usage
 Viewers

Enable new real-time metrics for better visibility of your traffic. [Learn more](#)

CloudFront Distributions

[Create Distribution](#) [Distribution Settings](#) [Delete](#) [Enable](#) [Disable](#)

Viewing: Any Delivery Method Any State

Delivery Method	ID	Domain Name	Comment	Origin	CNAMEs	Status	State	Last Modified
<input checked="" type="radio"/> Web	E28IVNJY4FZDCR	d3r6xlez8zocdi.cl	-	cloudcaps	-	In Prog	Enabled	2020-06-15 13:1

Viewing 1 to 1 of 1 Items

Step 10: Configure the CloudFront distribution to point to your domain by editing the configuration and adding the domain name in Alternate Domain Name field

Step 11: Repeat steps 4 to 10 to create multiple deployments of your application in different regions so that you can meet the global traffic demand

Step 12: Use the traffic flow editor to create traffic policy to route traffic to different

endpoints across the globe

Step 13: As good practice, follow the principle of least privilege so that you give access to the services that need to be accessed within the AWS console