Dr. N.G.P INSTITUTE OF TECHNOLOGY

COIMBATORE - 641048

AN AUTONOMOUS INSTITUTION

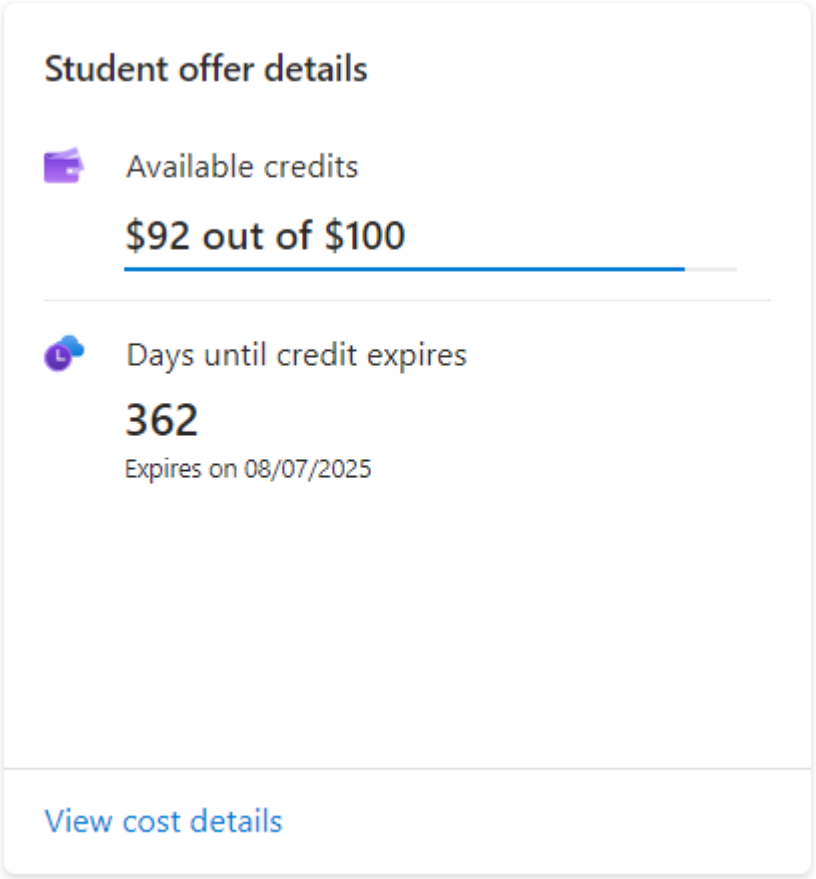
Reg No	**:**	710722104044
Name	**:**	KAVIPRIYA P
Class	**:**	III Year CSE A
Course Name	**:**	Microsoft azure Fundamentals
Company	**:**	Pinesphere Solution,Coimbatore
Start date	**:**	06-08-2024
Start date	**:**	10-08-2024
Github URL	**:**	https://github.com/kavipriya44/apollo.git

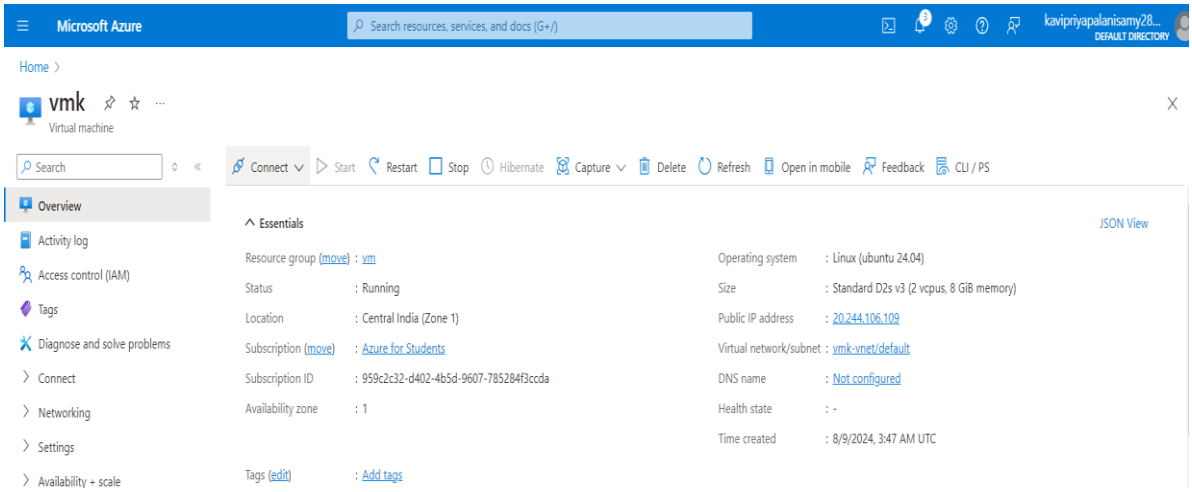
CREATING A VIRTUAL MACHINE (VM) IN MICROSOFT AZURE:

Creating A Virtual Machine (Vm) In Microsoft Azure Involves The Following Steps:

1. Sign in to the Azure portal.
2. Navigate to "Create a resource" and select "Virtual Machine."
3. Choose a subscription, resource group, and region.
4. Configure VM settings, including size, OS, and storage.
5. Set up networking, security, and management options.
6. Review and create the VM, then monitor its deployment.

The VM will be ready to use after deployment.





HOST A WEBSITE FROM GITHUB ON A VIRTUAL MACHINE (VM) IN MICROSOFT AZURE

1. **Set Up the VM:** Ensure your Azure VM is running and accessible via SSH or RDP. Install a web server like Apache or Nginx on the VM.
2. **Clone the GitHub Repository:** SSH into the VM and clone your website's repository from GitHub using git clone <repository-url>.
3. **Deploy the Website:** Move the cloned repository to the web server's root directory, typically /var/www/html for Apache or the appropriate directory for Nginx.
4. **Configure the Web Server:** Update the web server configuration files to serve your website. Restart the server to apply changes.
5. **Open Ports:** Ensure that the necessary ports (e.g., port 80 for HTTP) are open in the Azure network security group settings to allow web traffic.
6. **Access the Website:** Access your website by entering the VM's public IP address or domain name in a web browser.

COMMANDS

Requesting a Cloud Shell.Succeeded.

Connecting terminal...

Your Cloud Shell session will be ephemeral so no files or system changes will persist beyond your current session.

kavi [~]$ ssh kavipriya03@20.244.106.109

kavipriya03@20.244.106.109's password:

Welcome to Ubuntu 24.04 LTS (GNU/Linux 6.8.0-1010-azure x86_64)

* Documentation: https://help.ubuntu.com

* Management: https://landscape.canonical.com

* Support: https://ubuntu.com/pro

System information as of Sat Aug 10 03:13:52 UTC 2024

System load: 0.09 Processes: 134

Usage of /: 5.9% of 28.02GB Users logged in: 1

Memory usage: 3% IPv4 address for eth0: 10.0.0.4

Swap usage: 0%

* Strictly confined Kubernetes makes edge and IoT secure. Learn how MicroK8s just raised the bar for easy, resilient and secure K8s cluster deployment.

https://ubuntu.com/engage/secure-kubernetes-at-the-edge

Expanded Security Maintenance for Applications is not enabled.

13 updates can be applied immediately.

To see these additional updates run: apt list --upgradable

Enable ESM Apps to receive additional future security updates.

See https://ubuntu.com/esm or run: sudo pro status

Last login: Sat Aug 10 02:46:43 2024 from 4.224.160.2

kavipriya03@vmk:~$ sudo apt update

Hit:1 http://azure.archive.ubuntu.com/ubuntu noble InRelease

Get:2 http://azure.archive.ubuntu.com/ubuntu noble-updates InRelease [126 kB]

Hit:3 http://azure.archive.ubuntu.com/ubuntu noble-backports InRelease

Hit:4 http://azure.archive.ubuntu.com/ubuntu noble-security InRelease

Get:5 http://azure.archive.ubuntu.com/ubuntu noble-updates/main amd64 Packages [344 kB]

Get:6 http://azure.archive.ubuntu.com/ubuntu noble-updates/main amd64 c-n-f Metadata [5716 B]

Get:7 http://azure.archive.ubuntu.com/ubuntu noble-updates/universe amd64 Packages [321 kB]

Get:8 http://azure.archive.ubuntu.com/ubuntu noble-updates/universe amd64 c-n-f Metadata [12.7 kB]

Fetched 809 kB in 1s (1454 kB/s)

Reading package lists... Done

Building dependency tree... Done

Reading state information... Done

9 packages can be upgraded. Run 'apt list --upgradable' to see them.

kavipriya03@vmk:~$ sudo apt install git

Reading package lists... Done

Building dependency tree... Done

Reading state information... Done

git is already the newest version (1:2.43.0-1ubuntu7.1).

0 upgraded, 0 newly installed, 0 to remove and 9 not upgraded.

kavipriya03@vmk:~$ sudo apt install nginx

Reading package lists... Done

Building dependency tree... Done

Reading state information... Done

nginx is already the newest version (1.24.0-2ubuntu7).

0 upgraded, 0 newly installed, 0 to remove and 9 not upgraded.

kavipriya03@vmk:~$ sudo systemctl start nginx

kavipriya03@vmk:~$ sudo systemctl enable nginx

Synchronizing state of nginx.service with SysV service script with /usr/lib/systemd/systemd-sysv-install.

Executing: /usr/lib/systemd/systemd-sysv-install enable nginx

kavipriya03@vmk:~$ cd /var/www/html

kavipriya03@vmk:/var/www/html$ /var/www/html$ sudo rm -rf *

-bash: /var/www/html$: No such file or directory

kavipriya03@vmk:/var/www/html$ sudo rm -rf *

kavipriya03@vmk:/var/www/html$ sudo git clone https://github.com/KausikaSubramani/browny.git .

fatal: destination path '.' already exists and is not an empty directory.

kavipriya03@vmk:/var/www/html$ sudo git clone https://github.com/kavipriya44/apollo.git .

Cloning into 'resume'...

remote: Enumerating objects: 90, done.

remote: Counting objects: 100% (90/90), done.

remote: Compressing objects: 100% (88/88), done.

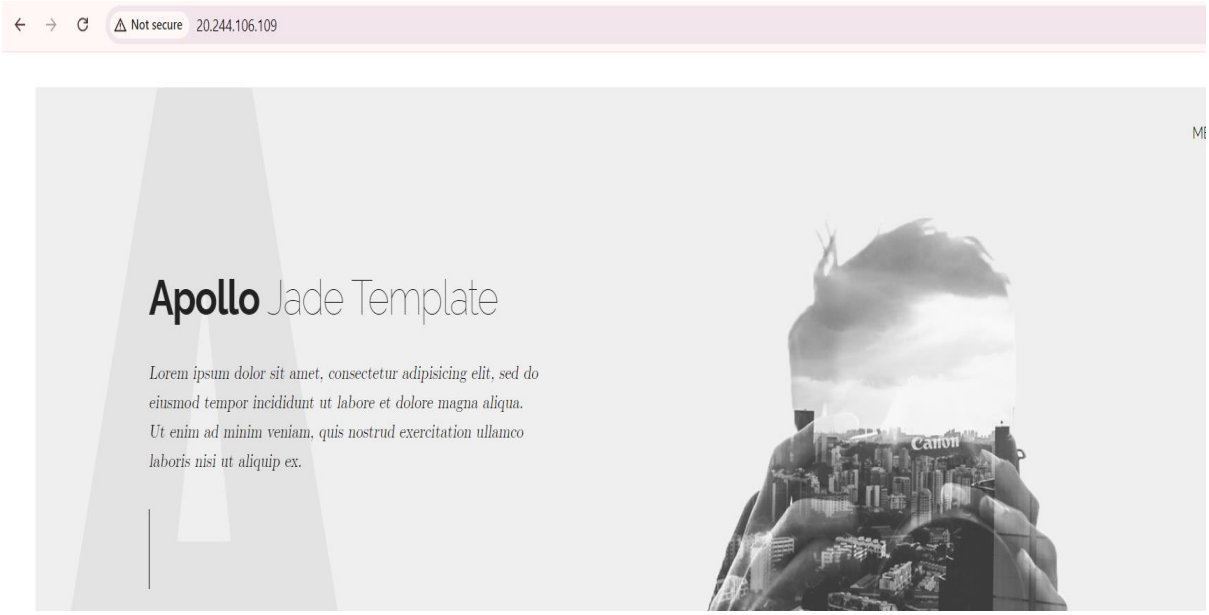
remote: Total 90 (delta 4), reused 0 (delta 0), pack-reused 0

Receiving objects: 100% (90/90), 818.23 KiB | 8.43 MiB/s, done.

Resolving deltas: 100% (4/4), done.

kavipriya03@vmk:/var/www/html$ sudo chown -R www-data:www-data /var/www/html

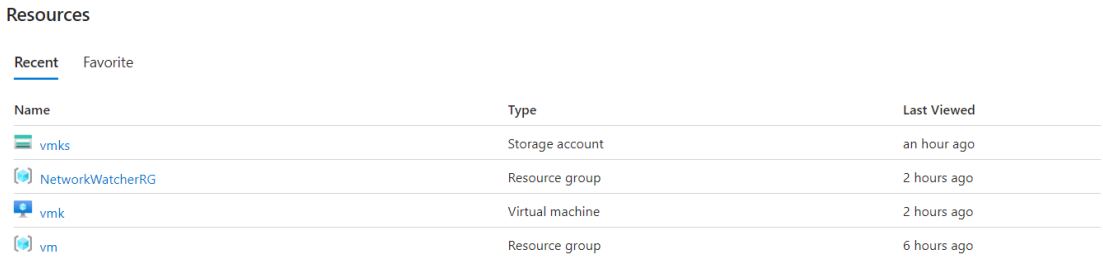
kavipriya@vmk:/var/www/html$



CREATION OF STORAGE ACCOUNT IN MICROSOFT:

To Create A Storage Account In Microsoft Azure, Follow These Steps:

1. **Sign in to Azure Portal**: Log in to the Azure portal at https://portal.azure.com.
2. **Create a Resource**: Click on "Create a resource" and select "Storage account" under the "Storage" category.
3. **Configure the Basics**: Choose a subscription, resource group, and storage account name. Select the region, performance tier (Standard or Premium), and replication option (e.g., LRS, GRS).
4. **Set Advanced Options**: Configure additional settings like access tier (Hot or Cool), security options, and networking.
5. **Review and Create**: Review the configuration and click "Create" to deploy the storage account.
6. **Access the Storage Account**: After deployment, access the storage account to manage containers, blobs, files, tables, or queues.

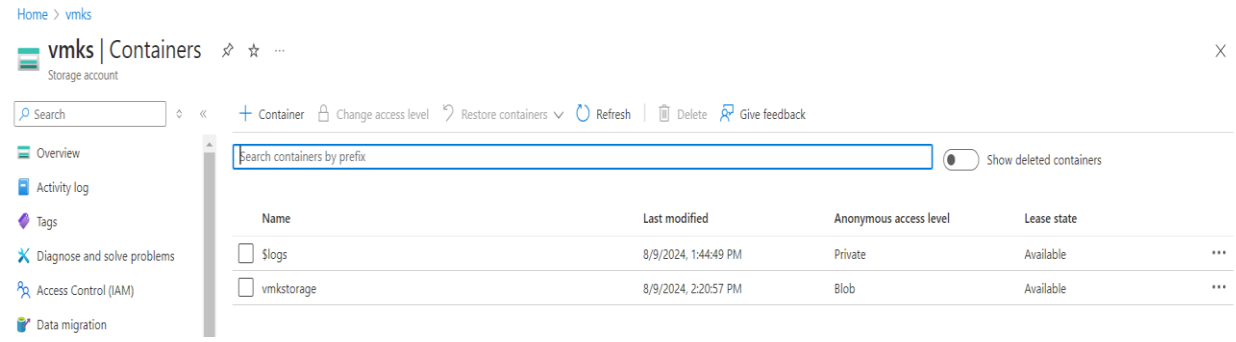


MANAGING OF STORAGE ACCOUNT

To Upload An Image Into A Container In An Azure Storage Account, Follow These Steps:

1. Access the Storage Account: Sign in to the Azure portal and navigate to your Storage Account.
2. Create a Container: In the Storage Account, select "Containers" and click "Add Container." Name the container and set the access level (private, blob, or container).
3. Open the Container: Once created, click on the container to open it.

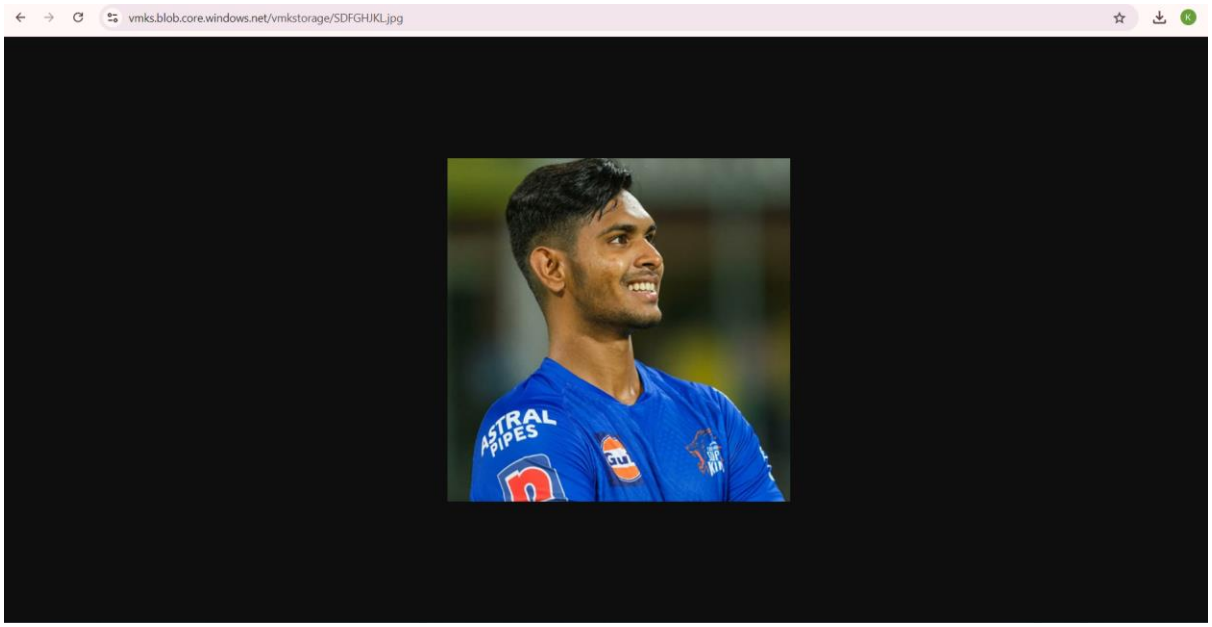
4. Upload the Image: Click the "Upload" button within the container. In the upload window, browse your local machine to select the image file.
5. Configure Upload Settings: Optional - You can set advanced upload options like overwriting existing files, setting metadata, or assigning blob tier.
6. Start the Upload: Click "Upload" to start the process. Once the upload is complete, your image will be stored in the container and accessible based on the access level you set.



URL PATH OF IMAGE :

https://vmks.blob.core.windows.net/vmkstorage/SDFGHJKL.jpg

OUTPUT :



STATIC WEB PAGE :

Deploying a Static Web Page on Azure

Using Azure Static Web App:

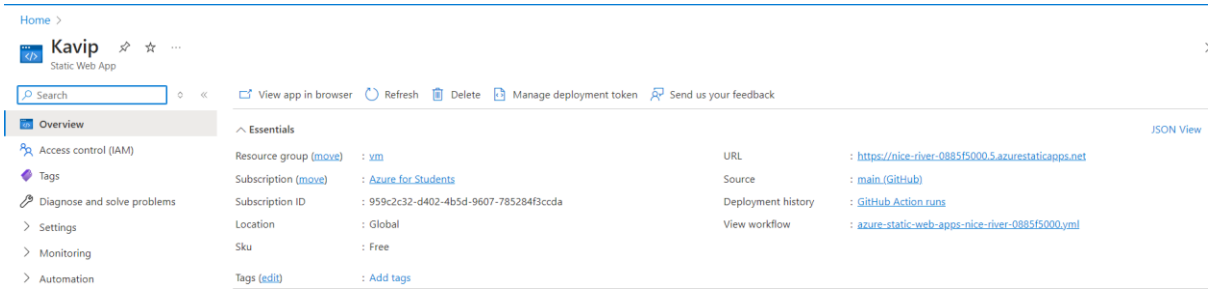
Prepare Your Site: Develop your static site and push it to a GitHub repository.

Set Up Azure Static Web Apps:

1. Sign in to Azure Portal.
2. Click **Create a resource** > **Static Web Apps**.
3. Connect to your GitHub repo and branch.

Deploy and Access:

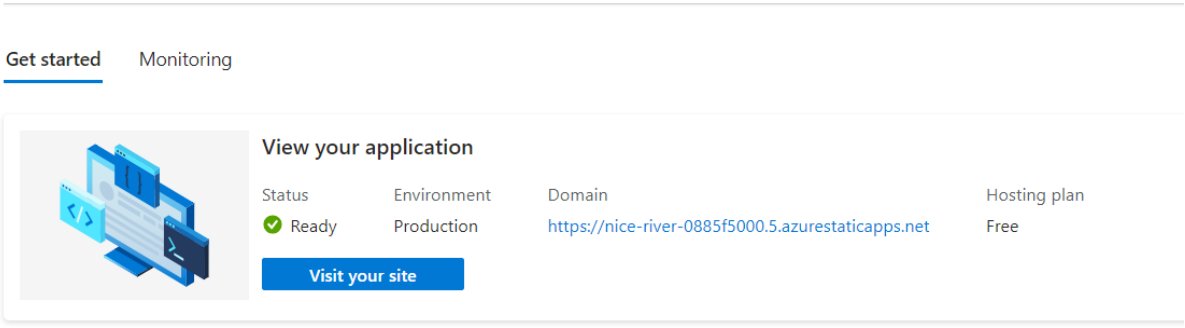
1. Azure deploys your site automatically.
2. Access it via the provided URL.



Access Your GitHub Pages Site :

Visit Your Site:

Open a web browser and navigate to https://github.com/kavipriya44/apollo.git You should see your static web page displayed.



OUTPUT:

CREATION OF LOCK:

You can create a lock on a resource by navigating to the resource, selecting Locks under Settings, and then adding a lock with either a Read-only or Delete option to prevent accidental modifications or deletions.