

Dr. N.G.P INSTITUTE OF TECHNOLOGY, COIMBATORE - 641048 AN AUTONOMOUS INSTITUTION



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Class : III Year CSE A

Course Name: Microsoft azure Fundamentals

Company: Pinesphere Solution, Coimbatore

Start Date : 06-08-2024

End Date : 10-08-2024

GIT URL : https://github.com/Harini0712/HONEY.git

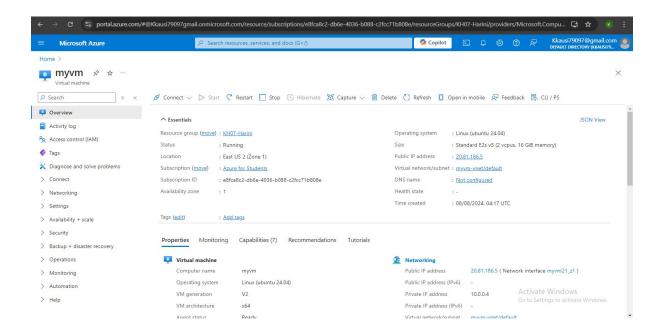
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CREATING A VIRTUAL MACHINE (VM) IN MICROSOFT AZURE:

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

COMMANDS

Requesting a Cloud Shell.Succeeded. Connecting terminal...

Welcome to Azure Cloud Shell

Type "az" to use Azure CLI

Type "help" to learn about Cloud Shell

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

harinimuruges04 [~]\$ ssh Harini@20.81.186.5

The authenticity of host '20.81.186.5 (20.81.186.5)' can't be established.

ED25519 key fingerprint is SHA256:6BYsnC7lTvYJarqFX0Tt77LwYTwYTlEum94j7DxT0HE.

This key is not known by any other names

Are you sure you want to continue connecting (yes/no/[fingerprint])? yes

Warning: Permanently added '20.81.186.5' (ED25519) to the list of known hosts.

Harini@20.81.186.5'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 Fri Aug 9 06:04:57 UTC 2024

System load: 0.0 Processes: 121
Usage of /: 6.0% of 28.02GB Users logged in: 0
Memory usage: 1% IPv4 address for eth0: 10.0.0.4

Swap usage: 0%

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

Expanded Security Maintenance for Applications is not enabled.

7 updates can be applied immediately.

7 of these updates are standard security updates.

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: Fri Aug 9 05:37:18 2024 from 4.186.10.135

Harini@myvm:~\$ sudo apt update

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

Hit:2 http://azure.archive.ubuntu.com/ubuntu noble-updates InRelease
Hit:3 http://azure.archive.ubuntu.com/ubuntu noble-backports InRelease

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

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

```
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
7 packages can be upgraded. Run 'apt list --upgradable' to see them.
Harini@myvm:~$ 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 7 not upgraded.
Harini@myvm:~$ 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 7 not upgraded.
Harini@myvm:~$ sudo systemetl start nginx
Harini@myvm:~$ 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
Harini@myvm:~$ cd /var/www/html
Harini@myvm:/var/www/html$ sudo rm -rf *
Harini@myvm:/var/www/html$ sudo git clone https://github.com/Harini0712/HONEY.git .
fatal: destination path '.' already exists and is not an empty directory.
Harini@myvm:/var/www/html$ sudo git
clone https://github.com/Harini0712/HONEY.git /var/www/html/HONEY
Cloning into '/var/www/html/HONEY'...
remote: Enumerating objects: 71, done.
remote: Counting objects: 100% (71/71), done.
remote: Compressing objects: 100% (68/68), done.
remote: Total 71 (delta 0), reused 0 (delta 0), pack-reused 0
Receiving objects: 100% (71/71), 1.47 MiB | 11.29 MiB/s, done.
Harini@myvm:/var/www/html$ cd /var/www/html/HONEY
Harini@myvm:/var/www/html/HONEY$ ls
'Browny Free Website Template - Free-CSS.com'
Harini@myvm:/var/www/html/HONEY$ sudo nano index.html
Harini@myvm:/var/www/html/HONEY$ sudo mv /var/www/html/HONEY/'Browny Free Website Template -
Free-CSS.com'/* /var/www/html/
Harini@myvm:/var/www/html/HONEY$ sudo systemetl status nginx
• nginx.service - A high performance web server and a reverse proxy server
   Loaded: loaded (/usr/lib/systemd/system/nginx.service; enabled; preset: enabled)
  Active: active (running) since Fri 2024-08-09 05:11:13 UTC; 1h 0min ago
    Docs: man:nginx(8)
 Main PID: 830 (nginx)
   Tasks: 3 (limit: 19121)
   Memory: 3.8M (peak: 4.3M)
    CPU: 30ms
   CGroup: /system.slice/nginx.service
         -830 "nginx: master process /usr/sbin/nginx -g daemon on; master process on;"
```

Aug 09 05:11:13 myvm systemd[1]: Starting nginx.service - A high performance web server and a reverse proxy server

831 "nginx: worker process" 832 "nginx: worker process"

Aug 09 05:11:13 myvm systemd[1]: Started nginx.service - A high performance web server and a reverse proxy server.

Harini@myvm:/var/www/html/HONEY\$ sudo mv /var/www/html/HONEY/'Browny Free Website Template - Free-CSS.com'/* /var/www/html/

mv: cannot stat '/var/www/html/HONEY/Browny Free Website Template - Free-CSS.com/*': No such file or directory

Harini@myvm:/var/www/html/HONEY\$ sudo systemctl restart nginx

 $Harini@myvm:/var/www/html/HONEY\$ \ sudo \ nano \ /etc/nginx/sites-available/default$

Harini@myvm:/var/www/html/HONEY\$ sudo nano /etc/nginx/sites-available/default

Harini@myvm:/var/www/html/HONEY\$ sudo nginx -t

nginx: the configuration file /etc/nginx/nginx.conf syntax is ok

nginx: configuration file /etc/nginx/nginx.conf test is successful

Harini@myvm:/var/www/html/HONEY\$ sudo systemetl reload nginx

Harini@myvm:/var/www/html/HONEY\$ sudo chown -R www-data:www-data/var/www/html

sudo chmod -R 755 /var/www/html

Harini@myvm:/var/www/html/HONEY\$ ls /var/www/html

HONEY browny-v1.0

Harini@myvm:/var/www/html/HONEY\$ sudo mv /var/www/html/HONEY/'Browny Free Website Template - Free-CSS.com'/* /var/www/html/

mv: cannot stat '/var/www/html/HONEY/Browny Free Website Template - Free-CSS.com/*': No such file or

Harini@myvm:/var/www/html/HONEY\$ cd /var/www/html/HONEY

Harini@myvm:/var/www/html/HONEY\$ ls -1

total 4

drwxr-xr-x 2 www-data www-data 4096 Aug 9 06:11 'Browny Free Website Template - Free-CSS.com'

Harini@myvm:/var/www/html/HONEY\$ ls -l /var/www/html/HONEY

total 4

drwxr-xr-x 2 www-data www-data 4096 Aug 9 06:11 'Browny Free Website Template - Free-CSS.com' Harini@myvm:/var/www/html/HONEY\$ sudo mv /var/www/html/HONEY/CorrectDirectoryName/* /var/www/html/

mv: cannot stat '/var/www/html/HONEY/CorrectDirectoryName/*': No such file or directory

Harini@myvm:/var/www/html/HONEY\$ sudo rm -rf /var/www/html/HONEY

Harini@myvm:/var/www/html/HONEY\$ sudo git

clone https://github.com/Harini0712/HONEY.git /var/www/html/HONEY

Cloning into '/var/www/html/HONEY'...

fatal: Unable to read current working directory: No such file or directory

Harini@myvm:/var/www/html/HONEY\$ cd /var/www/html/HONEY

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

Harini@myvm:/var/www/html/HONEY\$ sudo mv /var/www/html/HONEY/CorrectDirectoryName/* /var/www/html/

mv: cannot stat '/var/www/html/HONEY/CorrectDirectoryName/*': No such file or directory

Harini@myvm:/var/www/html/HONEY\$ ls -l /var/www/html/HONEY/'Browny Free Website Template - Free-CSS.com'

ls: cannot access '/var/www/html/HONEY/Browny Free Website Template - Free-CSS.com': No such file or directory

Harini@myvm:/var/www/html/HONEY\$ sudo rm -rf /var/www/html/HONEY

Harini@myvm:/var/www/html/HONEY\$ sudo mkdir -p /var/www/html/HONEY

Harini@myvm:/var/www/html/HONEY\$ cd /var/www/html

Harini@myvm:/var/www/html\$ sudo git

clone https://github.com/Harini0712/HONEY.git /var/www/html/HONEY

Cloning into '/var/www/html/HONEY'...

remote: Enumerating objects: 71, done.

remote: Counting objects: 100% (71/71), done.

remote: Compressing objects: 100% (68/68), done.

remote: Total 71 (delta 0), reused 0 (delta 0), pack-reused 0 Receiving objects: 100% (71/71), 1.47 MiB | 10.80 MiB/s, done.

Harini@myvm:/var/www/html\$ sudo mv /var/www/htmlHONEY/'Browny Free Website Template - Free-

CSS.com'/* /var/www/html/

mv: cannot overwrite '/var/www/html/browny-v1.0': Directory not empty

Harini@myvm:/var/www/html\$ cd /var/www/html/HONEY

Harini@myvm:/var/www/html/HONEY\$ ls -l

total 4

drwxr-xr-x 3 root root 4096 Aug 9 06:29 'Browny Free Website Template - Free-CSS.com'

Harini@myvm:/var/www/html/HONEY\$ sudo mv /var/www/html/HONEY/'Browny Free Website Template -

Free-CSS.com'/* /var/www/html/

mv: cannot overwrite '/var/www/html/browny-v1.0': Directory not empty

Harini@myvm:/var/www/html/HONEY\$ ls -l /var/www/html/browny-v1.0

total 40

drwxr-xr-x 8 www-data www-data 4096 Aug 9 06:09 assets

-rwxr-xr-x 1 www-data www-data 28997 Aug 9 06:09 index.html

-rwxr-xr-x 1 www-data www-data 859 Aug 9 06:09 readme.txt

Harini@myvm:/var/www/html/HONEY\$ sudo mv /var/www/html/browny-v1.0 /var/www/html/browny-v1.0-backup

Harini@myvm:/var/www/html/HONEY\$ sudo rm -rf /var/www/html/browny-v1.0

Harini@myvm:/var/www/html/HONEY\$ sudo mv /var/www/html/HONEY/'Browny Free Website Template -

Free-CSS.com'/* /var/www/html/

Harini@myvm:/var/www/html/HONEY\$ ls -l /var/www/html/

total 12

drwxr-xr-x 4 root root 4096 Aug 9 06:29 HONEY

drwxr-xr-x 3 root root 4096 Aug 9 06:29 browny-v1.0

drwxr-xr-x 3 www-data www-data 4096 Aug 9 06:09 browny-v1.0-backup

Harini@myvm:/var/www/html/HONEY\$ sudo systemctl status nginx

• nginx.service - A high performance web server and a reverse proxy server

Loaded: loaded (/usr/lib/systemd/system/nginx.service; enabled; preset: enabled)

Active: active (running) since Fri 2024-08-09 06:23:14 UTC; 8min ago

Docs: man:nginx(8)

Process: 4511 ExecStartPre=/usr/sbin/nginx -t -q -g daemon on; master_process on; (code=exited, status=0/SUCCESS)

D 4512 E- C

Process: 4512 ExecStart=/usr/sbin/nginx -g daemon on; master_process on; (code=exited,

status=0/SUCCESS)

Process: 4547 ExecReload=/usr/sbin/nginx -g daemon on; master_process on; -s reload (code=exited,

status=0/SUCCESS)

Main PID: 4514 (nginx) Tasks: 3 (limit: 19121)

Memory: 2.5M (peak: 4.4M)

CPU: 29ms

CGroup: /system.slice/nginx.service

Harini@myvm:/var/www/html/HONEY\$ ^C

Harini@myvm:/var/www/html/HONEY\$ ^C

Harini@myvm:/var/www/html/HONEY\$ ^C

Harini@myvm:/var/www/html/HONEY\$ ^C

Harini@myvm:/var/www/html/HONEY\$ ^C

Harini@myvm:/var/www/html/HONEY\$ ^C

Harini@myvm:/var/www/html/HONEY\$ cd /var/www

Harini@myvm:/var/www\$ sudo rm *

rm: cannot remove 'html': Is a directory

Harini@myvm:/var/www\$ sudo rm html

rm: cannot remove 'html': Is a directory

Harini@myvm:/var/www\$ rm html

rm: cannot remove 'html': Is a directory

Harini@myvm:/var/www\$ sudo rm -rf *

Harini@myvm:/var/www\$ sudo rm *

rm: cannot remove '*': No such file or directory

Harini@myvm:/var/www\$ cd html

-bash: cd: html: No such file or directory

Harini@myvm:/var/www\$ sudo mkdir -p html

Harini@myvm:/var/www\$ cd html

Harini@myvm:/var/www/html\$ sudo git clone https://github.com/Harini0712/HONEY.git .

Cloning into '.'...

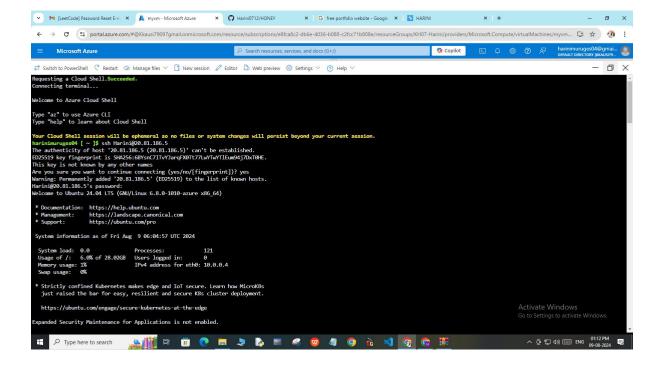
remote: Enumerating objects: 74, done.

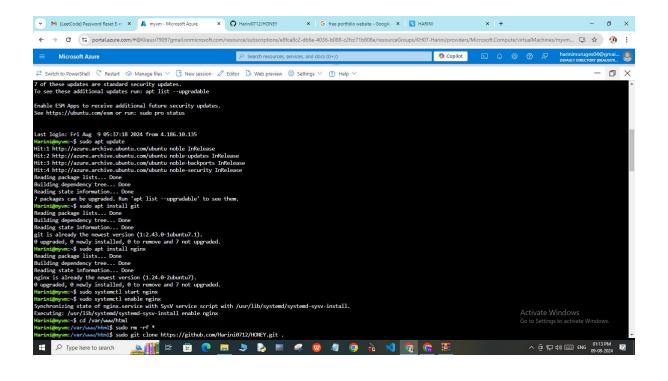
remote: Counting objects: 100% (74/74), done. remote: Compressing objects: 100% (70/70), done.

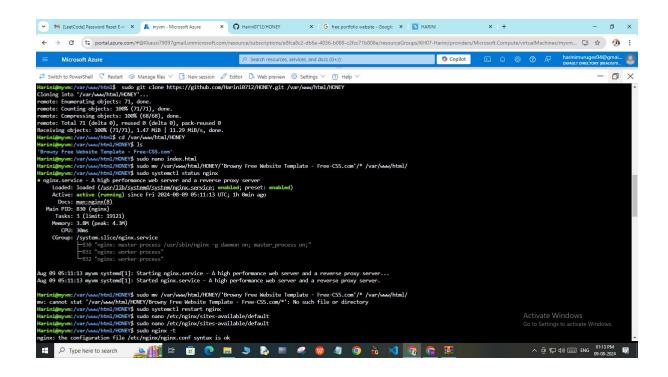
remote: Total 74 (delta 0), reused 0 (delta 0), pack-reused 0 Receiving objects: 100% (74/74), 1.47 MiB | 10.89 MiB/s, done.

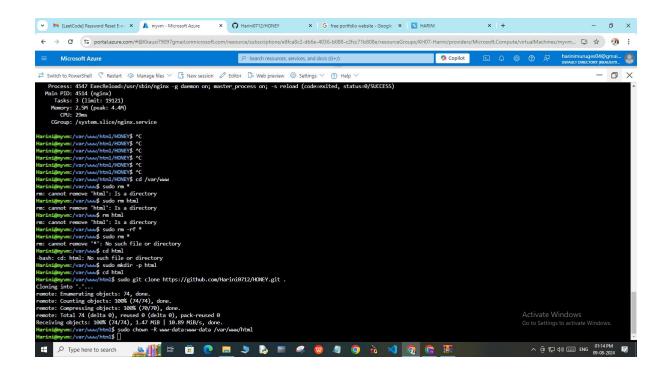
Harini@myvm:/var/www/html\$ sudo chown -R www-data:www-data /var/www/html

Harini@myvm:/var/www/html\$

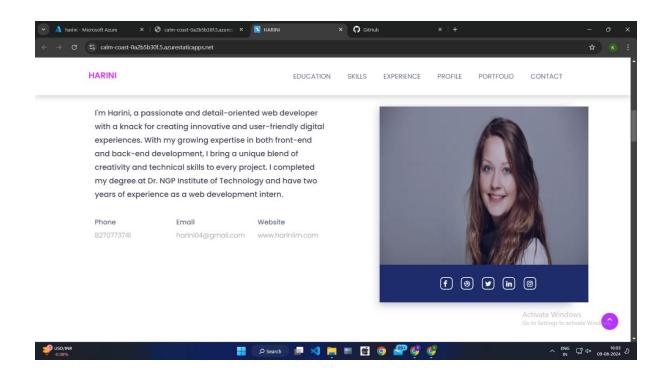


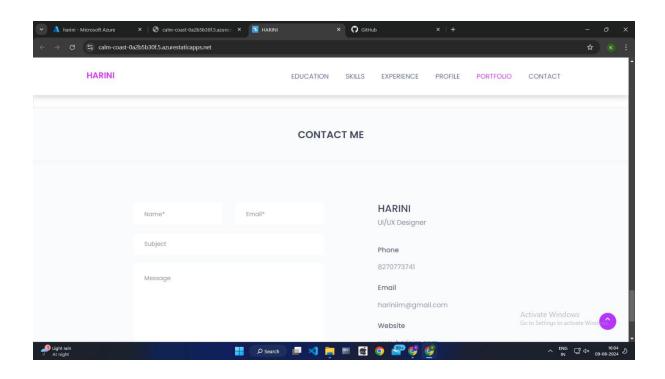






OUTPUT





CREATION OF STORAGE ACCOUNT IN MICROSOFT:

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

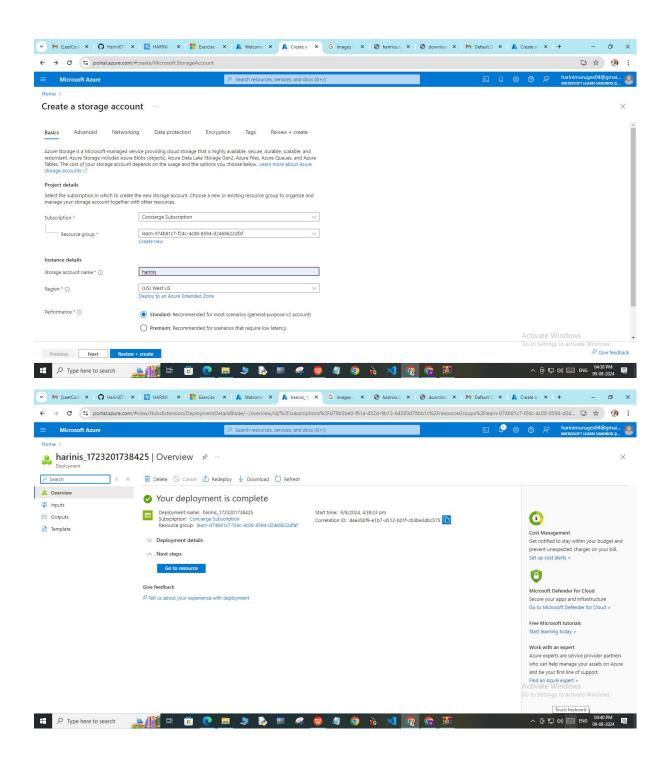
- 1. Sign in to Azure Portal.
- 2. Create a Resourc
- 3. Configure the Basics
- 4. Set Advanced Options
- 5. Review and Create
- 6. Access the Storage Account
- 7. After deployment, access the storage account to manage containers, blobs, files, tables, or queues.

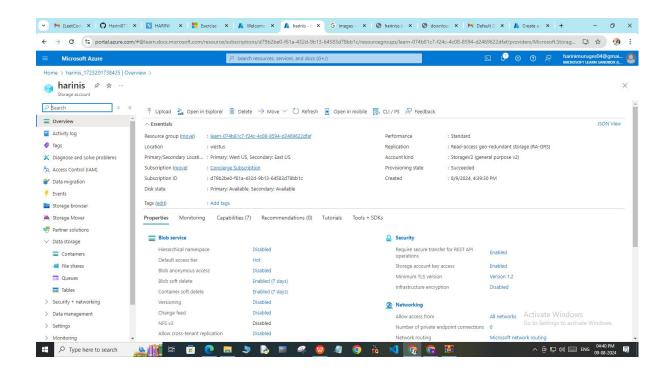


MANAGING OF STORAGE ACCOUNT

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.

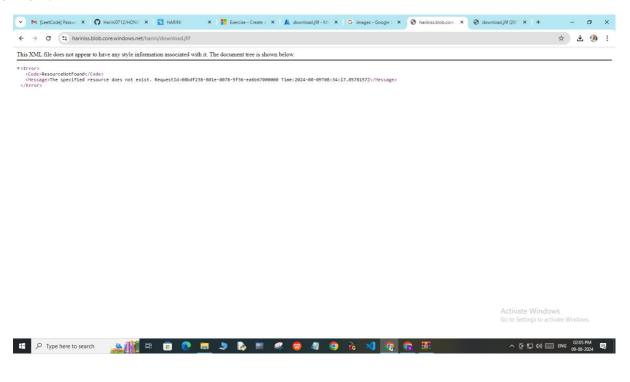


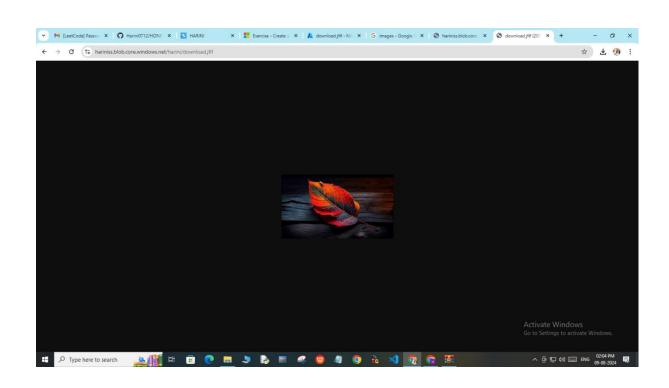


URL PATH OF IMAGE:

https://hariniss.blob.core.windows.net/harini/download.jfif

OUTPUT:





STATIC WEB PAGE:

Deploying a Static Web Page on Azure

Using Azure Static Web App:

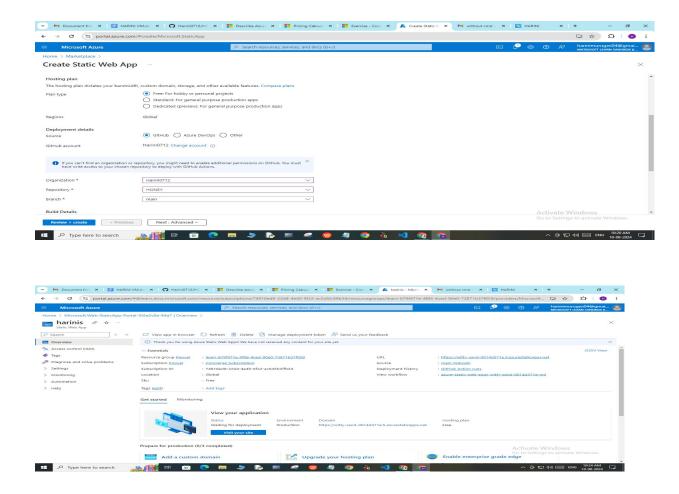
Prepare Your Site: Develop your static site and push it to a GitHub repository.

Set Up Azure Static Web Apps:

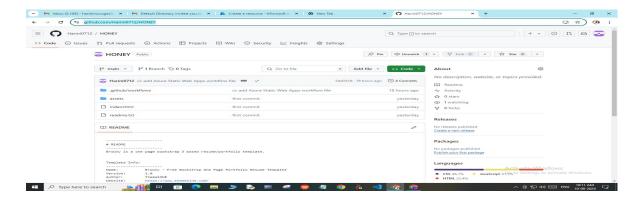
- 1. Sign in to Azure Portal.
- 2. Click Create a resource > Static Web Apps.
- 3. Connect to your GitHub repo and branch.

Deploy and Access:

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



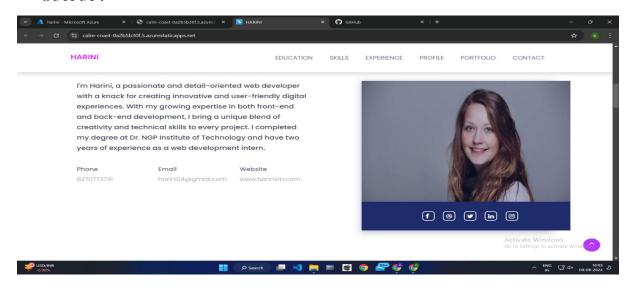
Access Your GitHub Pages Site:

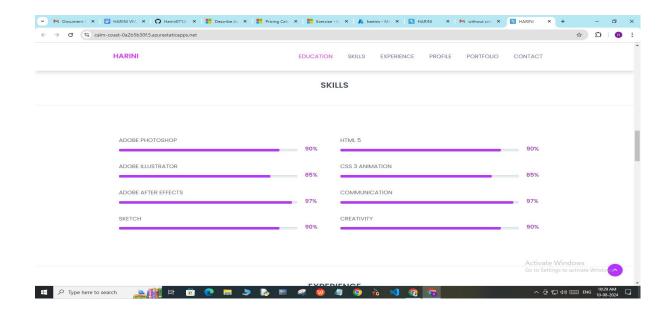


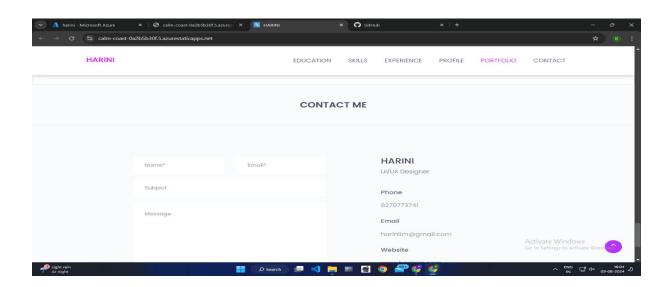
Visit Your Site:

Open a web browser and navigate to https://github.com/Harini0712/HONEY You should see your static web page displayed.

OUTPUT:





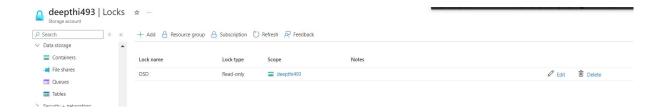


CREATION OF LOCK IN STORAGE ACCOUNT:

To create a lock on a storage account in Azure:

- 1. Go to the Azure Portal: Sign in at portal.azure.com.
- 2. Find Your Storage Account: Navigate to Storage accounts and select your account.
- 3. Add a Lock:
 - 1. Go to Settings > Locks.
 - 2. Click + Add, choose ReadOnly or Delete, name the lock, and click OK.

This prevents accidental deletion or modification of your storage account.



After creating a lock:

