MICROSOFT AZURE

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SYSTEMS

GITHUB LINK: https://github.com/Karthika-19/AZURE---KARTHIKA-

S.git

REQUESTING A CLOUD SHELL SUCCEEDED. CONNECTING TERMINAL...

Welcome to Azure Cloud Shell

SANDBOX:

- az vm create --resource-group "learn-1dd151f8-37c6-44cc-a975-8f08e65c30c2" --name my-vm --public-ip-sku Standard --image Ubuntu2204 --admin-username azureuser --generate-ssh-keys
- az vm extension set --resource-group "learn-1dd151f8-37c6-44cc-a975-8f08e65c30c2" --vm-name my-vm --name customScript --publisher Microsoft.Azure.Extensions --version 2.1 --settings '{"fileUris":["https://raw.githubusercontent.com/MicrosoftDocs/mslearn-welcome-to-azure/master/configure-nginx.sh"]}' --protected-settings '{"commandToExecute": "./configure-nginx.sh"}'
- sudo apt-get update
- ssh azureuser@98.70.112.108
- echo "sudo apt-get update -y
- sudo apt-get install nginx -y
- sudo systemctl start nginx
- sudo systemetl enable nginx" > setup nginx.sh
- chmod +x setup nginx.sh
- ./setup nginx.sh

- echo "<html><body><h2>Welcome to Azure! My name is \$(hostname).</h2></body></html>" | sudo tee -a /var/www/html/index.html
- •
- sudo systemetl status nginx
- az vm open-port --resource-group "learn-1dd151f8-37c6-44cc-a975-8f08e65c30c2" --name my-vm --port 80
- az vm list-ip-addresses --resource-group "learn-1dd151f8-37c6-44cc-a975-8f08e65c30c2" --name my-vm --output table
- ssh azureuser@98.70.112.108
- sudo apt-get update
- git clone https://github.com/Karthika-19/myportfolio.git
- sudo cp -r html/* /var/www/html/
- sudo chown -R www-data:www-data/var/www/html
- sudo chmod -R 755 /var/www/html
- sudo systemetl restart nginx\

EXECUTING COMMANDS IN SAND BOX

```
C | Azure Cloud Shell

Switch to PowerShell  Restart  Manage files  New session  

Type "az" to use Azure CLI

Type "help" to learn about Cloud Shell

Karthikasivakumar2020 [ ~ ]$ az vm create --resource-group "learn-efdf3b1a-08b4-4c

df-a17e-bf7c86657797" --name my-vm --public-ip-sku Standard --image Ubuntu2204 --a

dmin-username azureuser --generate-ssh-keys

SSH key files 'home/karthikasivakumar2020/.ssh/id_rsa' and '/home/karthikasivakum

ar2020/.ssh/id_rsa.pub' have been generated under ~/.ssh to allow SSH access to the

2 Wh. If using machines without permanent storage, back up your keys to a safe loc

ation.

{

"fqdns": "",

"id": "/subscriptions/9e2deb73-2f73-46d9-96f9-f94827200755/resourceGroups/learn-efdf3b1a-08b4-4cdf-a17e-bf7c86657797/providers/Microsoft.Compute/virtualMachines/m

y-vm",

"location": "westus",

"macAddress": "00-00-3A-35-B7-1F",

"powerState": "WM running",

"privateIpAddress": "10.0.0.4",

"publicIpAddress": "10.0.0.4",

"publicIpAddress": "10.0.0.4",

"publicIpAddress": "10.0.0.4",

"publicIpAddress": "learn-efdf3b1a-08b4-4cdf-a17e-bf7c86657797",

"zones": "

Activate Windows

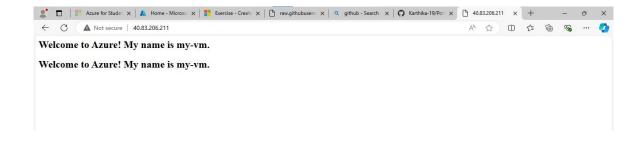
Go to Settings to activate Windows.
```

```
0 upgraded, 0 newly installed, 0 to remove and 10 not upgraded.
-bash: syntax error near unexpected token `&'
chmod: cannot access 'setup_nginx.sh': No such file or directory
-bash: ./setup_nginx.sh: No such file or directory
azureuser@my-vm:~$ echo "sudo apt-get update -y
sudo apt-get install nginx -y
sudo systemctl start nginx
sudo systemctl enable nginx"> setup_nginx.sh
chmod +x setup_nginx.sh
./setup_nginx.sh
Hit:1 http://azure.archive.ubuntu.com/ubuntu jammy InRelease
Hit:2 http://azure.archive.ubuntu.com/ubuntu jammy-updates InRelease
Hit:3 http://azure.archive.ubuntu.com/ubuntu jammy-backports InRelease
Hit:4 http://azure.archive.ubuntu.com/ubuntu jammy-security InRelease
Reading package lists... Done
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
nginx is already the newest version (1.18.0-6ubuntu14.4).
0 upgraded, 0 newly installed, 0 to remove and 10 not upgraded.
Synchronizing state of nginx.service with SysV service script with /lib/systemd/sy
stemd-sysv-install. Activate Windows

Executing: /lib/systemd/systemd-sysv-install enable negative windows.
azureuser@my-vm:~$
```

RUNNING HTML IN BROWSER WITH PUBLIC IP ADDRESS

```
azureuser@my-vm:~$ echo "<html><body><h2>Welcome to Azure! My name is
$(hostname).</h2></body></html>" | sudo tee -a /var/www/html/index.html
<html><body><h2>Welcome to Azure! My name is
my-vm.</h2></body></html>
```

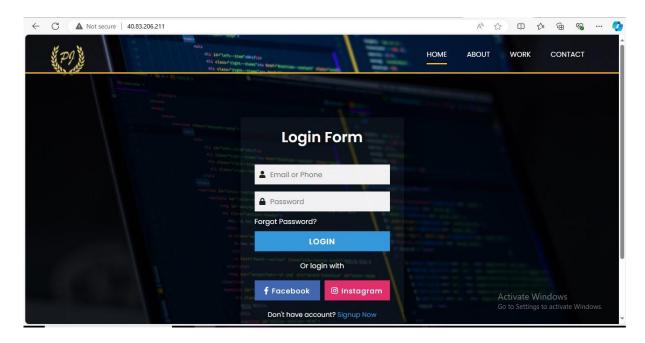


DISPLAYING VIRTUAL MACHINE, PUBLIC IP AND PRIVATE IP

RUNNING PORTFOLIO FROM GIT HUB IN THE BROWSER

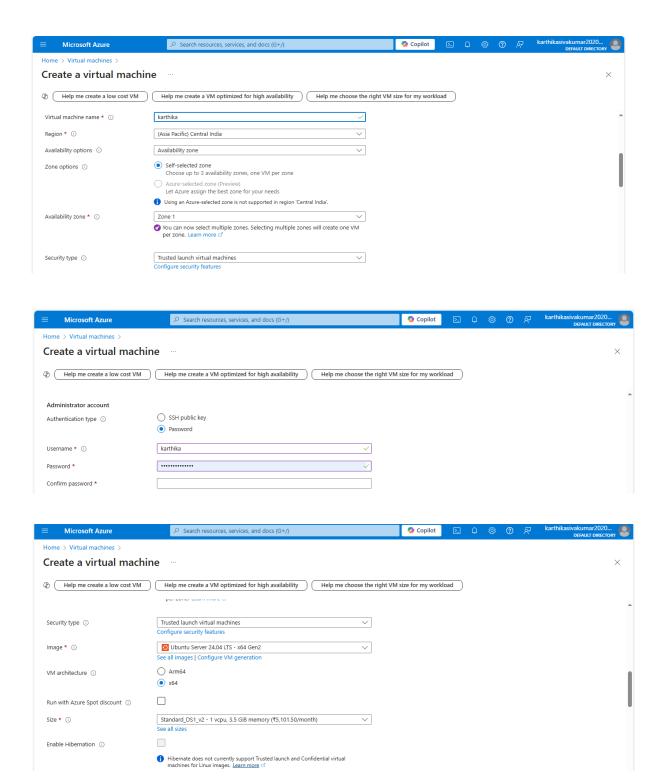
```
azureuser@my-vm:~$ git clone https://github.com/jagadeeshpj/loginpage.git
Cloning into 'loginpage'...
remote: Enumerating objects: 27, done.
remote: Counting objects: 100% (27/27), done.
remote: Compressing objects: 100% (25/25), done.
remote: Total 27 (delta 7), reused 0 (delta 0), pack-reused 0
Receiving objects: 100% (27/27), 522.30 KiB | 6.07 MiB/s, done.
Resolving deltas: 100% (7/7), done.
azureuser@my-vm:~$ sudo cp -r Login-Page-using-html-css/* /var/www/html/
cp: cannot stat 'Login-Page-using-html-css/*': No such file or directory
azureuser@my-vm:~$ sudo cp -r loginpage/* /var/www/html/
azureuser@my-vm:~$ sudo chown -R www-data:www-datac/van/www/htmlows
sudo chmod -R 755 /var/www/html

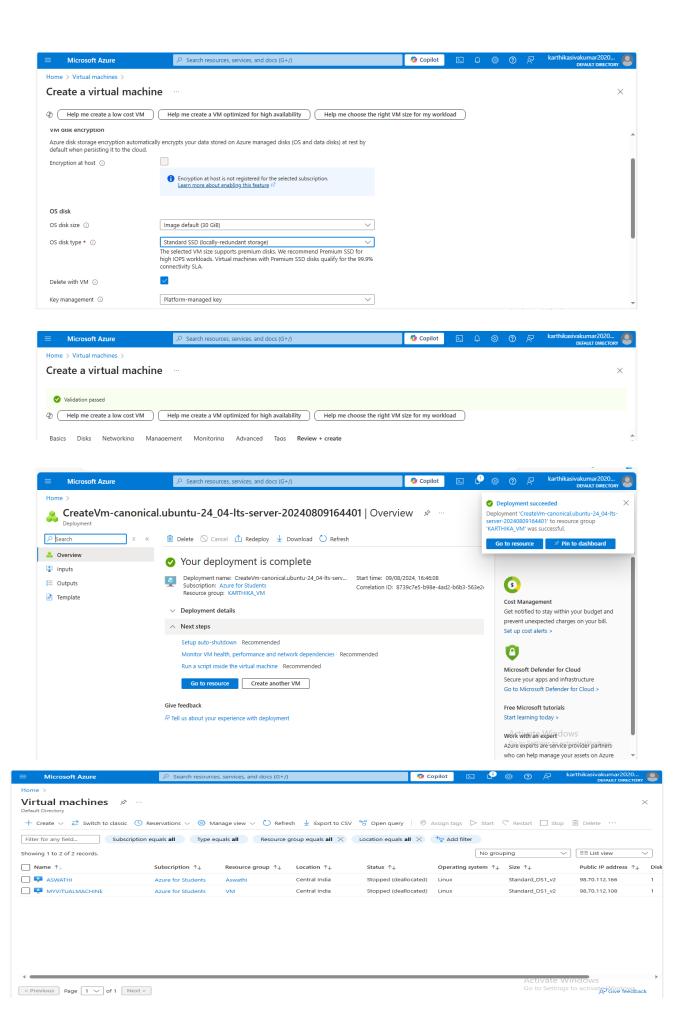
Go to Settings to activate Windows.
azureuser@my-vm:~$
```



VIRTUAL MACHINE

CREATING A VIRTUAL MACHINE

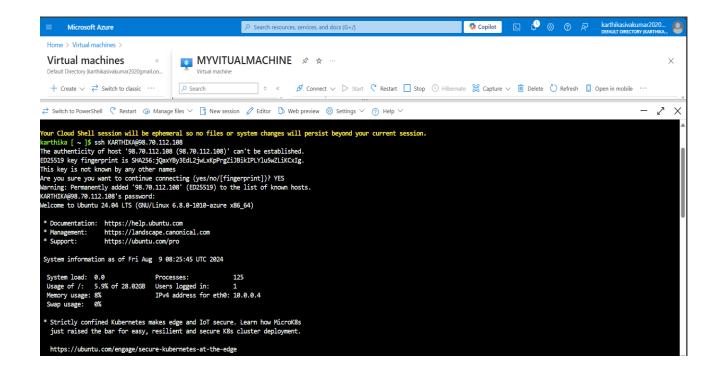




COMMANDS FOR VIRTUAL MACHINE

- ✓ ssh KARTHIKA@98.70.112.108
- ✓ sudo apt update
- ✓ sudo apt install git
- ✓ sudo apt install nginx
- ✓ sudo systemctl start nginx
- ✓ sudo systemctl enable nginx
- ✓ cd /var/www/html
- ✓ sudo rm -rf *
- ✓ sudo git clone https://github.com/Karthika-19/myportfolio.git
- ✓ sudo chown -R www-data:www-data/var/www/html

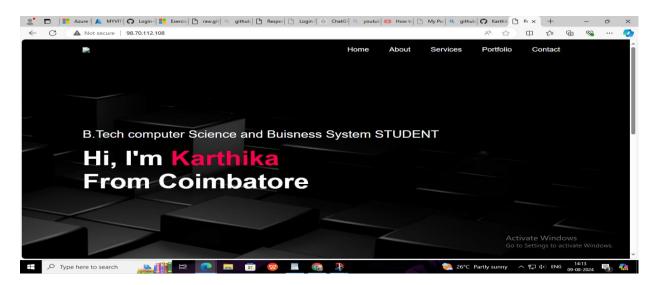
EXECUTING THE VIRTUAL MACHINE COMMANDS



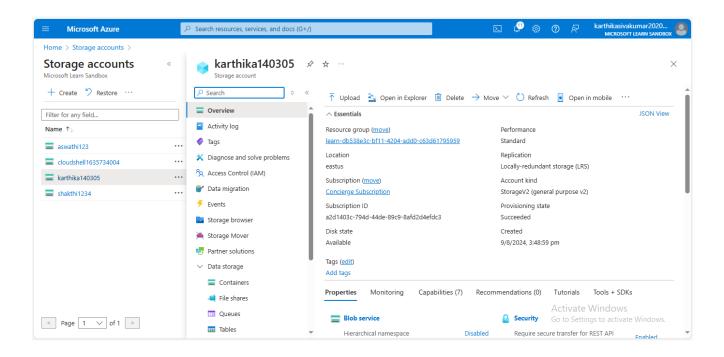
```
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
nginx is already the newest version (1.24.0-2ubuntu7).
0 upgraded, 0 newly installed, 0 to remove and 9 not upgraded.
KARTHIKA@MYVITUALMACHINE:~$ sudo systemctl start nginx
KARTHIKA@MYVITUALMACHINE:~$ sudo systemctl enable nginx
Synchronizing state of nginx.service with SysV service script with /usr/lib/systemd/systemd-
Executing: /usr/lib/systemd/systemd-sysv-install enable nginx
KARTHIKA@MYVITUALMACHINE:~$ cd /var/www/html
KARTHIKA@MYVITUALMACHINE:/var/www/html$ sudo rm -rf *
KARTHIKA@MYVITUALMACHINE:/var/www/html$ sudo git clone https://github.com/Karthika-19/myport
folio.git
Cloning into 'myportfolio'...
remote: Enumerating objects: 8, done.
remote: Counting objects: 100% (8/8), done.
remote: Compressing objects: 100% (8/8), done.
remote: Total 8 (delta 0), reused 8 (delta 0), pack-reused 0
Receiving objects: 100% (8/8), 185.18 KiB | 8.82 MiB/s, done.
KARTHIKA@MYVITUALMACHINE:/var/www/html$ sudo chown -R www-data:www-data /var/www/html
KARTHIKA@MYVITUALMACHINE:/var/www/html$ 🛚
```

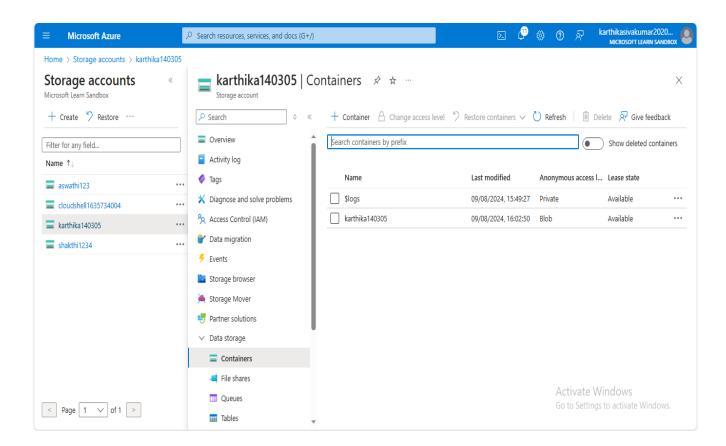
```
VITUALMACHINE:~$ sudo apt update
Hit:1 http://azure.archive.ubuntu.com/ubuntu noble InRelease
Get:2 http://azure.archive.ubuntu.com/ubuntu noble-updates InRelease [126 kB]
Hit:3 http://azure.archive.ubuntu.com/ubuntu noble-backports InRelease
Hit:4 http://azure.archive.ubuntu.com/ubuntu noble-security 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 (1056 kB/s)
eading package lists... Done
Building dependency tree... Done
Reading state information... Done
9 packages can be upgraded. Run 'apt list --upgradable' to see them.
        @MYVITUALMACHINE:~$ 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.
KARTHIKA@MYVITUALMACHINE:~$ 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).
O upgraded, 0 newly installed, 0 to remove and 9 not upgraded.

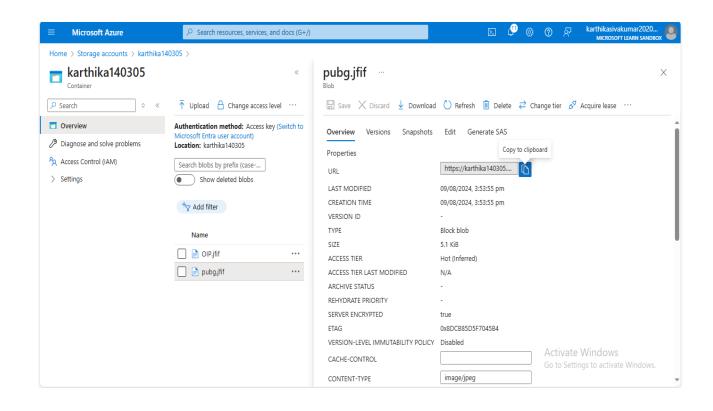
(ARTHIKA@MYVITUALMACHINE:~$ sudo systemctl start nginx
```



STORAGE ACCOUNT- CONTAINERS- BLOG

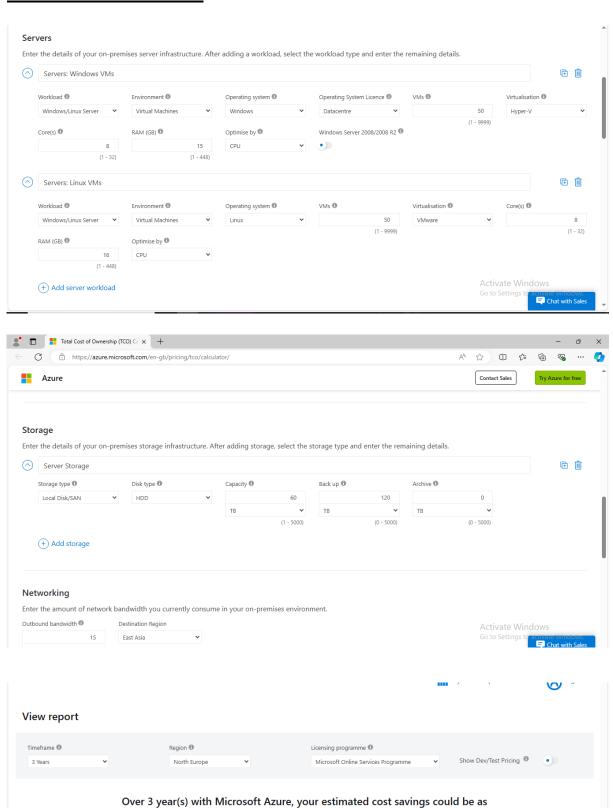




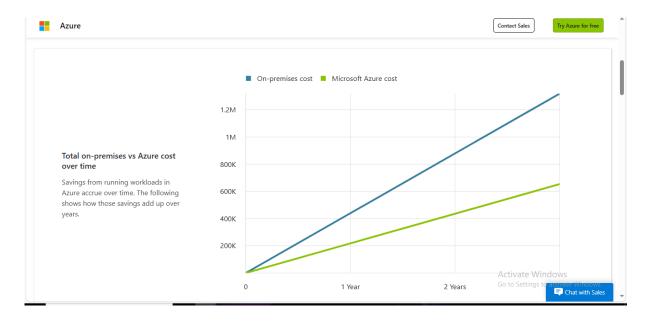




COST MANAGEMENT



much as **US\$665,456**

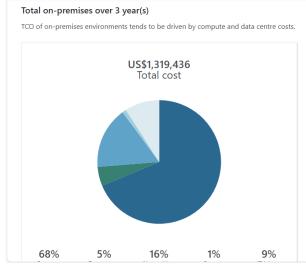


Total Azure cost over 3 year(s)

55%

Total Azure cost breakdown

0%



US\$653,980 Total cost Activate Windows

4%

23%

Chat with Sales

In Azure, several of the cost categories from the on-premises environment are consolidated and decrease with the efficiency that comes with the cloud. Compute Data centre Networking Storage IT labour 600K Activate Windows Go to Settings to compute Storage Activate Windows Go to Settings to compute Storage

Total	US\$1,319,436.00	Total	US\$653,980.0
IT labour	US\$115,000.23		
Storage	US\$19,174.40		
Networking	US\$213,237.39	II labour	05\$115,000.2
Data centre	US\$68,917.56	Storage IT labour	US\$148,856.8 US\$115,000.2
Electricity Virtualisation	US\$42,166.08 US\$105,616.00	Networking	US\$27,639.0 US\$148.856.8
Software	US\$123,100.00	Data centre	US\$0.0
Compute Hardware	US\$903,106.08 US\$632,224.00	Compute	US\$362,484.0
Category	Cost	Category	Co
On-premises cost breakdown summary		Azure cost breakdown summary	
Cost over 3 year(s)		Cost over 3 year(s)	
US\$1,319,436		US\$653,980	
LIC44 240 42C		LICACES OOO	