

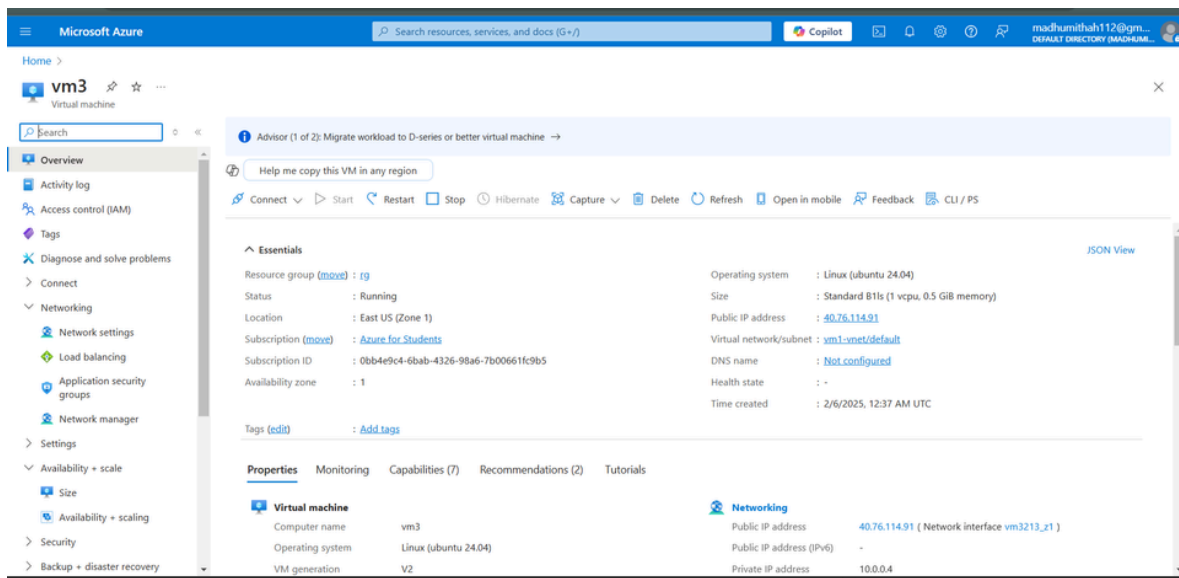
Placement Empowerment Program Cloud Computing and DevOps Centre

Deploy a Web Application on the CloudWrite a Python Flask application and deploy it on your cloud VM. Configure the firewall to allow HTTP traffic.

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Step 1: create a new vm in the azure portal



Step 2:

connect to your vm using ssh in terminal

command: `ssh username@vm-public-ip`

connect to it using your password or ssh key

```
PS C:\Users\madhu> ssh madhu@40.76.114.91
madhu@40.76.114.91's password:
Welcome to Ubuntu 24.04.1 LTS (GNU/Linux 6.8.0-1021-azure x86_64)
+ Documentation: https://help.ubuntu.com
```

Step 3:

jr

Install Python and Flask on Your VM

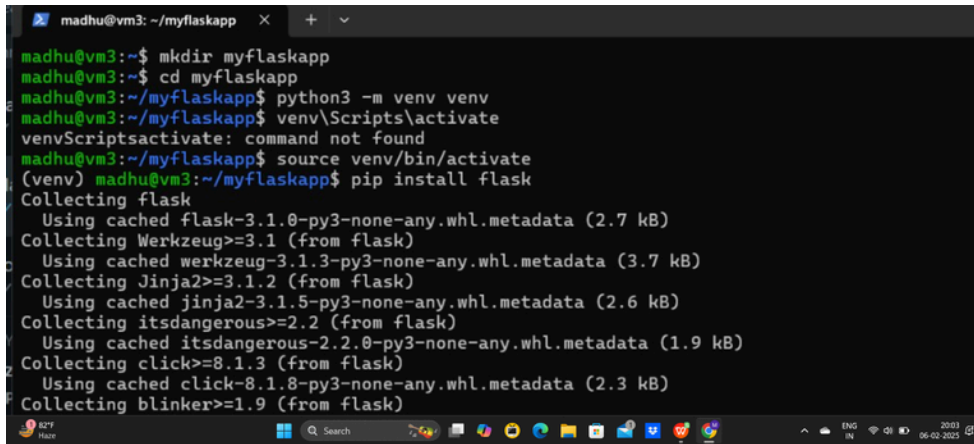
SSH into your Azure VM and install
Python (if it's not already installed) and
Flask

```
madhu@vm3:~$ sudo apt update && sudo apt upgrade -y
sudo apt install python3 python3-pip python3-venv -y
Hit:1 http://azure.archive.ubuntu.com/ubuntu noble InRelease
Get:2 http://azure.archive.ubuntu.com/ubuntu noble-updates InRelease [126 kB]
Get:3 http://azure.archive.ubuntu.com/ubuntu noble-backports InRelease [126 kB]
Get:4 http://azure.archive.ubuntu.com/ubuntu noble-security InRelease [126 kB]
```

Step 4:

create your folder: `mkdir myflaskapp`
then navigate to it using `cd myflaskapp`
command

install flask using : `pip install flask`



```
madhu@vm3: ~/myflaskapp
madhu@vm3:~$ mkdir myflaskapp
madhu@vm3:~$ cd myflaskapp
madhu@vm3:~/myflaskapp$ python3 -m venv venv
madhu@vm3:~/myflaskapp$ venv\Scripts\activate
venvScriptsactivate: command not found
madhu@vm3:~/myflaskapp$ source venv/bin/activate
(venv) madhu@vm3:~/myflaskapp$ pip install flask
Collecting flask
  Using cached flask-3.1.0-py3-none-any.whl.metadata (2.7 kB)
Collecting Werkzeug>=3.1 (from flask)
  Using cached werkzeug-3.1.3-py3-none-any.whl.metadata (3.7 kB)
Collecting Jinja2>=3.1.2 (from flask)
  Using cached jinja2-3.1.5-py3-none-any.whl.metadata (2.6 kB)
Collecting itsdangerous>=2.2 (from flask)
  Using cached itsdangerous-2.2.0-py3-none-any.whl.metadata (1.9 kB)
Collecting click>=8.1.3 (from flask)
  Using cached click-8.1.8-py3-none-any.whl.metadata (2.3 kB)
Collecting blinker>=1.9 (from flask)
```

Create Your Flask Application File

On your VM, create a new Python file for the app, e.g., `madhuapp.py`.

Use any editor (like vim or nano) to paste the Flask code above into this file.

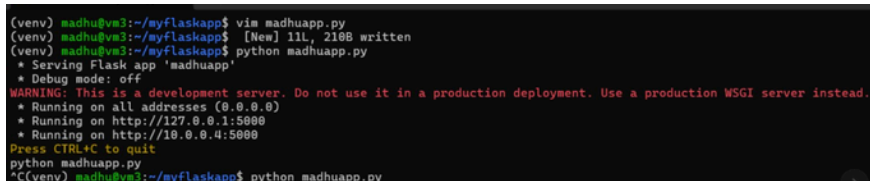
Then run it using command : `python madhuapp.py`

```
from flask import Flask

app = Flask(__name__)

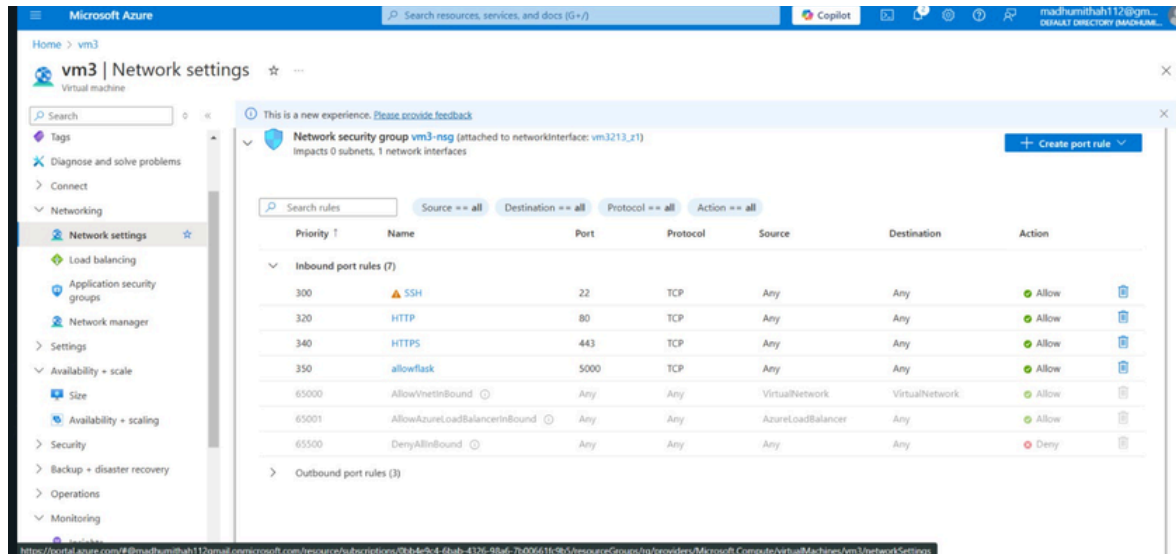
@app.route('/')
def home():
    return "Hello, your Flask app is working on Azure!"

if __name__ == '__main__':
    app.run(host='0.0.0.0', port=5000)
```



```
(venv) madhu@vm3:~/myflaskapp$ vim madhuapp.py
(venv) madhu@vm3:~/myflaskapp$ [New] 11L, 210B written
(venv) madhu@vm3:~/myflaskapp$ python madhuapp.py
* Serving Flask app 'madhuapp'
* Debug mode: off
WARNING: This is a development server. Do not use it in a production deployment. Use a production WSGI server instead.
* Running on all addresses (0.0.0.0)
* Running on http://127.0.0.1:5000
* Running on http://10.0.0.4:5000
Press CTRL+C to quit
python madhuapp.py
^C(venv) madhu@vm3:~/myflaskapp$ python madhuapp.py
```

Step 5:



run the python madhuapp.py command again and you can view your vm running on :
`http://<your-vm-public-ip>:5000`



