



St. JOSEPH'S
GROUP OF INSTITUTIONS
OMR, CHENNAI - 119

PLACEMENT EMPOWERMENT PROGRAM

Cloud Computing & DevOps Center

Writing a simple Python Flask application,
deploying it on an Azure Virtual Machine.

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Dept: CSE

INTRODUCTION :

Flask is a lightweight web framework in Python, ideal for building simple web applications. Deploying a Flask app on an **Azure Virtual Machine (VM)** allows you to host your web service with full control over the server environment.

OVERVIEW:

□ **Set Up the Flask Application**

- Install Flask and create a basic web app.
- Define routes and configure the app.

□ **Configure the Azure Virtual Machine**

- Create an **Windows** on Azure.
- Install Python, Flask, and necessary dependencies.

STEP BY STEP PROCESS:

Step 1: Install Flask and write the following cmd in Azure Bash.

Cmd: pip install Flask

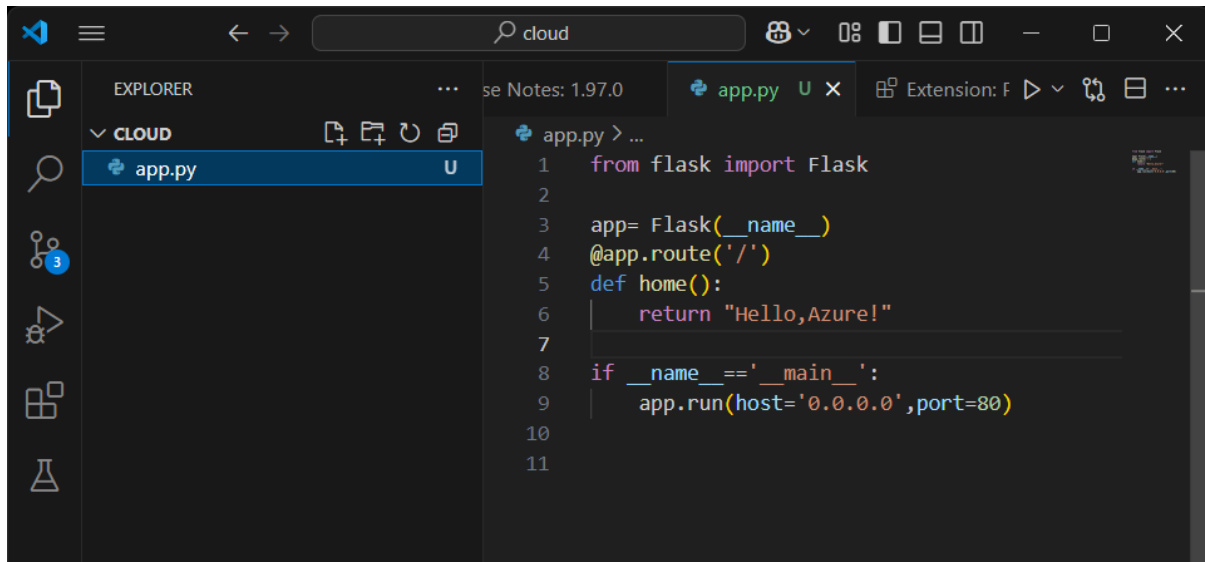
```
persist beyond your current session.
avinash [ ~ ]$ pip install flask
Defaulting to user installation because normal site-packages is not writeable
Collecting flask
  Downloading flask-3.1.0-py3-none-any.whl (102 kB)
    _____ 103.0/103.0 kB 1.1 MB/s eta 0:00:00
Collecting Jinja2>=3.1.2
  Downloading jinja2-3.1.5-py3-none-any.whl (134 kB)
    _____ 134.6/134.6 kB 4.0 MB/s eta 0:00:00
Collecting itsdangerous>=2.2
  Downloading itsdangerous-2.2.0-py3-none-any.whl (16 kB)
Collecting click>=8.1.3
  Downloading click-8.1.8-py3-none-any.whl (98 kB)
    _____ 98.2/98.2 kB 4.4 MB/s eta 0:00:00
Collecting Werkzeug>=3.1
  Downloading werkzeug-3.1.3-py3-none-any.whl (224 kB)
    _____ 224.5/224.5 kB 5.5 MB/s eta 0:00:00
Collecting blinker>=1.9
  Downloading blinker-1.9.0-py3-none-any.whl (8.5 kB)
Collecting importlib-metadata>=3.6
  Downloading importlib_metadata-8.6.1-py3-none-any.whl (26 kB)
Collecting zipp>=3.20
  Downloading zipp-3.21.0-py3-none-any.whl (9.6 kB)
Requirement already satisfied: MarkupSafe>=2.0 in /usr/lib/python3.9/site-pack
```

NOTE: If pip doesn't work

run: pip install --upgrade pip

```
[notice] To update, run: pip install --upgrade pip
avinash [ ~ ]$ pip install --upgrade pip
Defaulting to user installation because normal site-packages is not writeable
Requirement already satisfied: pip in /usr/lib/python3.9/site-packages (23.0.1)
Collecting pip
  Downloading pip-25.0-py3-none-any.whl (1.8 MB)
    _____ 1.8/1.8 MB 6.1 MB/s eta 0:00:00
Installing collected packages: pip
Successfully installed pip-25.0
```

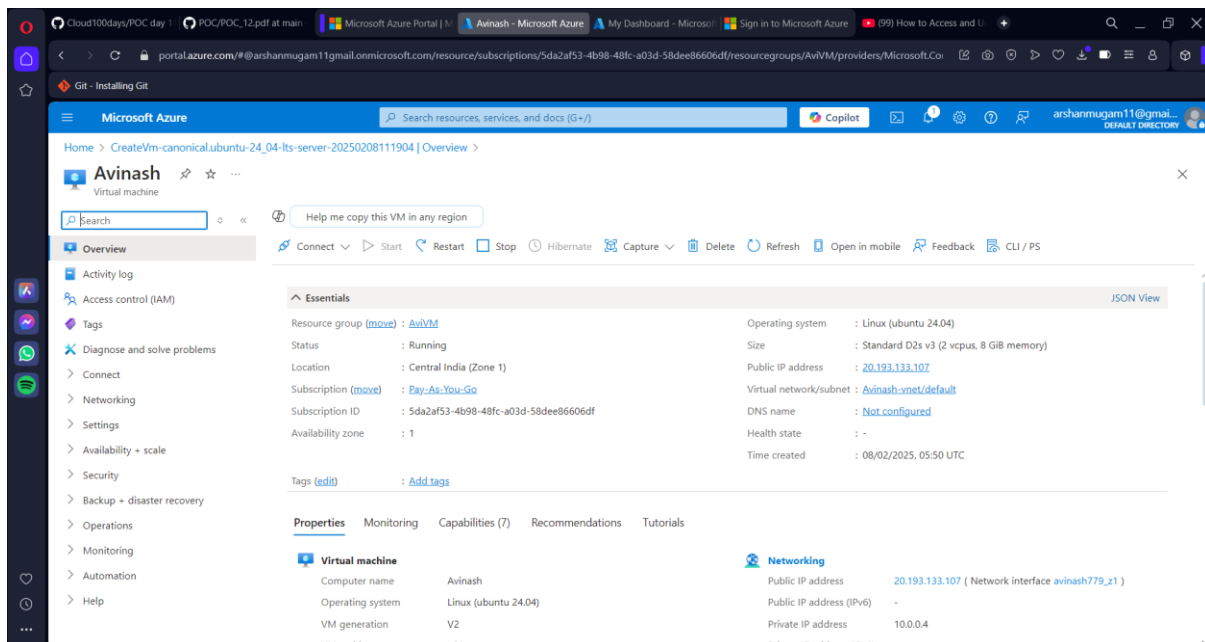
Step 2: Create a Flask App. You can use any editor. Enter this code in a file and save it with .py extension.



The screenshot shows a code editor with a dark theme. The Explorer pane on the left shows a file named 'app.py' under a 'CLOUD' folder. The main editor area displays the following Python code:

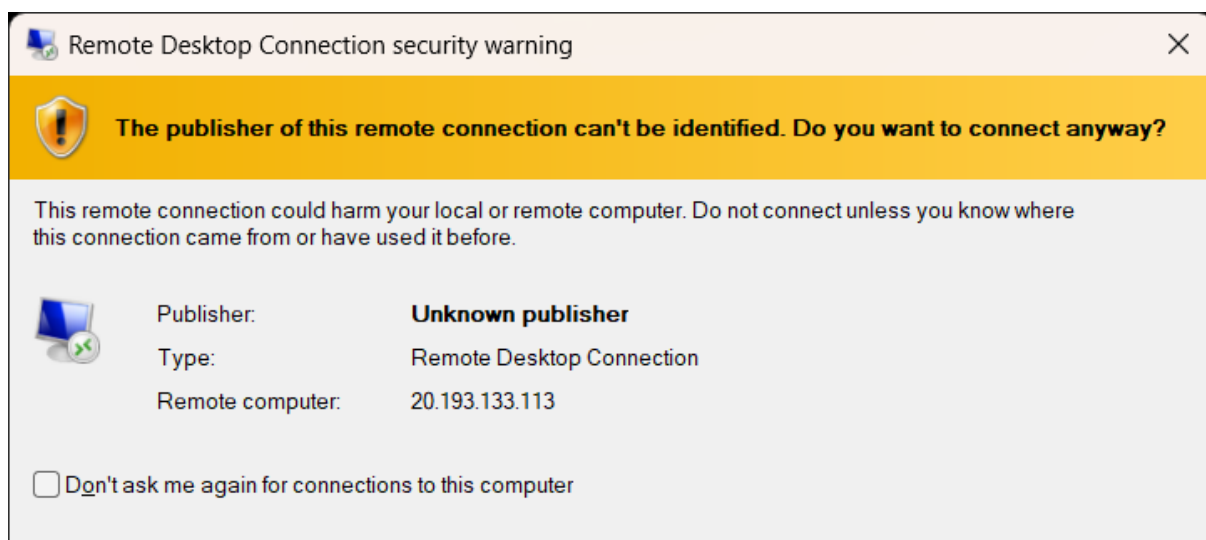
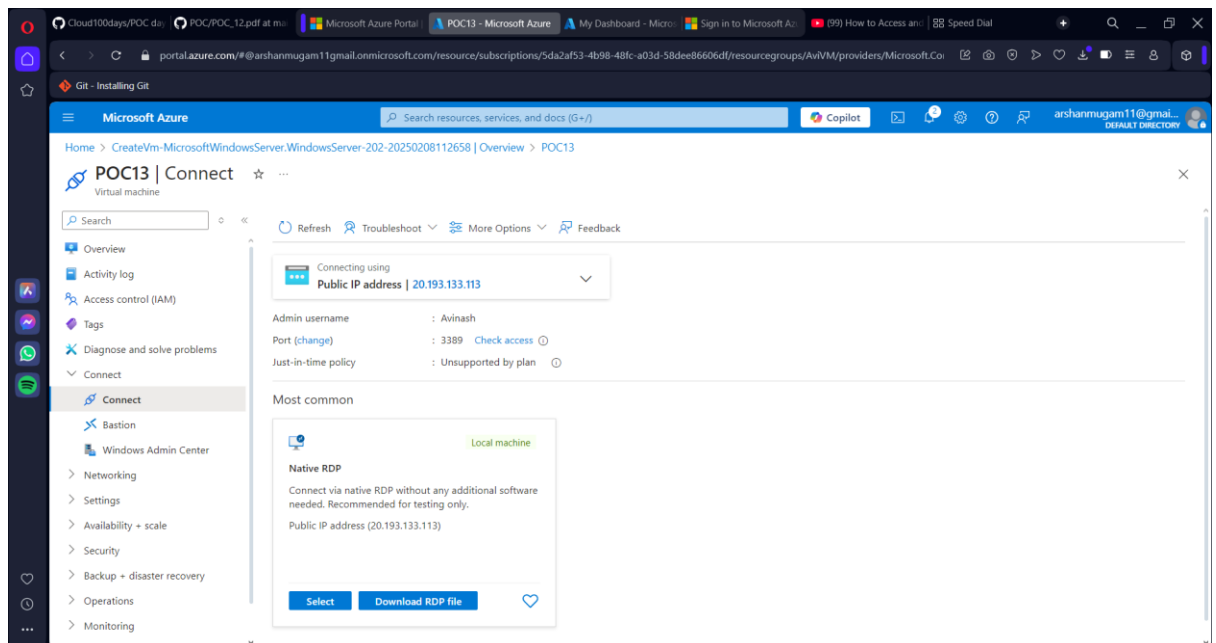
```
1 from flask import Flask
2
3 app= Flask(__name__)
4 @app.route('/')
5 def home():
6     return "Hello,Azure!"
7
8 if __name__=='__main__':
9     app.run(host='0.0.0.0',port=80)
10
11
```

Step 3: Create an Azure VM.



Step 4:

- Connect your VM via RDP. Go to the Overview of your VM and click on connect, then download the RDP file.
- Once downloaded open the file and click on “CONNECT”.



Step 5: Enter your username and passwd for connection.



Windows Security



Enter your credentials

These credentials will be used to connect to 20.193.133.113.

Avinash

Password

☐ Remember me

[More choices](#)

OK

Cancel