Project-3:

Method-1

Deploy Falsk(or) Pyhton web application manually by using AWS resources.

What is falsk:

- Flask is a small and lightweight python web application framework that provides usefull tools and features that makes creating web application in python easier.
- It gives developers flexibility and it is a more accessible frameworks for new developers since you can build a web application quickly using only a single python file.

What is python?

- It is a computer programming language often used to build websites and software automate tasks, and conduct data analysis.

What is PIP:

- PIP is a package manager python packages.or modules.
- Note: If you have python version3.4 or later PIP is including by default.

PRE_REQUISITES:

- AWS account
- IAM user
- Terminal
- Basic understand pf Python/Flask

SERVICES AND TOOLS USED:

AWS SERVICW:

- IAM
- VPC
- EC2

- ROUTE53

DEVOPS TOOLS:

- Git Hub
- Jenkins
- Terraform

Step by step process:

- Create and login AWS root account.
- Create a VPC along with subnets,route tables,internet gateway.elastic IP(if required),NACL(optional).
- Create security group with respective ports.
  SSH = 22
  HTTPS =443
  HTTP = 80
  TCP = 8080 5000 7000
- Create ec2 instance launch with ssh
  Amazon lionux,Ubuntu,RHEL
- Update Ubuntu machine.
  Sudo apt update
- Full upgrade it
  Sudo apt-get full-upgrade –y
- Install required oackages or tools related for deployment project
  Sudo apt-get install python3-pip
- Install git and clone https://github.com/GOUSERABBANI44/flask-library-app.git

  Sudo git clone repo link
- Go to source code directory
  Cd flask-library-app/
- Now install requirements packages
  Pip3 install –r requirements.txt
- Run flask server
  Python3 app.py
  Install screen command in Ubuntu as “sudo apt install screen”
  Screen –m –d python3 app.py

- Here after running python app.py it will generate localhost IP address.We cant access we app with that Ip aaddress.Then we ant to edit the file app.py with some details. Sudo vi app.py
- Goto very bottom of the file and paste this below text and save then file. App.run(host='0.0.0.0/0', port=8080,debug=True)
- Now again run the flask server by using below command
  Python3 app.py
- Now copy EC2 instance public IP and give port number and search in web browser.
  IP:8080
- We will get Output like this

Method-2

ubuntu

```
#!/bin/bash

sudo apt update

sudo apt-get full-upgrade –y

sudo apt-get install python3-pip

git clone https://github.com/GOUSERABBANI44/flask-library-app.git

cd /

sudo mv flask-library-app /home/ubuntu/

cd /home/Ubuntu

cd flask-library-app

pip3 install –r requiremnets.txt

nohup python3-u ./app.py &
```

amazon linux

```
#!/bin/bash

Sudo yum update –y

Sudo yum –y install git
```

Git clone https://github.com/GOUSERABBANI44/flask-library-app.git

Sudo yum install –y python3-pip

Cd flask-library-app

Pip3 install –r requirements.txt

Nohup python3 –u ./app.py &

- Now launch thye instance
- After that browse with port 8080.

Weather

Car-prediction

Fish

Flight prediction

Penguin

Mentat

inNews

medical insurance

portfolio

agri

indian-Liver-patients

hearing

fuel-consumption-rating

USA-Houasing

MyFuel