B"H

**SOP for Deploying a Flask Application on AWS**

**Purpose:**

This document outlines the process of setting up and running a Flask application on an AWS EC2 instance, including accessing the instance via SSH, importing files from a Git repository, installing requirements, setting up Python, configuring the application with systemctl, enabling it to run at system startup, and opening port 8080 in the firewall.

**Materials and Tools Needed:**

* AWS account
* SSH key for accessing the instance
* Git repository containing the application files
* requirements.txt file with all necessary dependencies
* Access to a terminal or SSH client

**Procedure:**

1. **Connect to the EC2 Instance via SSH:**

sh

chmod 400 MoniTHOR\_Group.pem

ssh -i MoniTHOR\_Group.pem ec2-user@<your-ec2-public-ip>

1. **Import Application Files from Git Repository:**

sh

sudo yum update -y

sudo yum install git -y

git clone <your-git-repo-url>

cd <your-repo-directory>

1. **Install Application Requirements:**
   * Install Python if not already installed:

sh

sudo yum install python3 -y

* + Install dependencies from requirements.txt:

sh

pip3 install -r requirements.txt

1. **Create a Service File for the Application:**

sh

sudo nano /etc/systemd/system/flaskapp.service

* + Add the following content to the file:

ini

[Unit]

Description=Gunicorn instance to serve my Flask application

After=network.target

[Service]

User=ec2-user

Group=nginx

WorkingDirectory=/home/ec2-user/<your-repo-directory>

Environment="PATH=/home/ec2-user/<your-repo-directory>/venv/bin"

ExecStart=/home/ec2-user/<your-repo-directory>/venv/bin/gunicorn --workers 3 --bind 0.0.0.0:8080 wsgi:app

[Install]

WantedBy=multi-user.target

1. **Start and Enable the Application with** systemctl**:**

sh

sudo systemctl daemon-reload

sudo systemctl start flaskapp

sudo systemctl enable flaskapp

1. **Open Port 8080 in the Firewall:**
   * Use the AWS Management Console to open port 8080:
   * Navigate to EC2 -> Security Groups -> Select the Security Group -> Add a new Inbound Rule for HTTP with port 8080.

**Verification and Approval:**

* After completing the process, verify that the application is running and accessible via the browser at: http://<your-ec2-public-ip>:8080.

**Signatures:**

* Maintenance Manager: \_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_
* Maintenance Technician: \_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_