

AWS Setup Instructions

1. Sign Up for an AWS Account:

- Go to the AWS website (<https://aws.amazon.com/>) and click on "Create an AWS Account".
- Follow the instructions to sign up for a new account.

2. Launch an EC2 Instance:

- Sign in to the AWS Management Console.
- Go to the EC2 dashboard.
- Click on "Launch Instance" to create a new EC2 instance.
- Choose an Amazon Machine Image (AMI) (e.g., Amazon Linux 2 AMI).
- Select an instance type based on your requirements.
- Configure instance details, such as network settings and storage.
- Add tags to your instance (optional).
- Configure security groups to allow inbound traffic on port 22 (SSH) and port 5000 (HTTP).
- Review and launch the instance, and create a new key pair or use an existing one to access the instance.

3. Connect to Your EC2 Instance:

- Use an SSH client like PuTTY (for Windows) or Terminal (for macOS/Linux) to connect to your EC2 instance.
- Use the `.pem` key pair file to authenticate the connection.
- Once connected, you'll be able to run commands on your EC2 instance.

```
ssh -i your-key.pem ec2-user@your-instance-public-ip
```

4. Install Required Software:

- Update the package manager: `sudo yum update` (for Amazon Linux) or `sudo apt update` (for Ubuntu).
- Install Python and pip: `sudo yum install python3` (for Amazon Linux) or `sudo apt install python3` (for Ubuntu).
- Install other required packages as needed, such as Git, Flask, NumPy, joblib, sklearn etc.

5. Upload Your Flask Application:

- Use SCP or SFTP to upload your Flask application files (Python scripts, joblib) to your EC2 instance.
- Use the IP address of your EC2 instance as the destination.

```
scp -i your-key.pem your-flask-app.py ec2-user@your-instance-public-ip:/home/ec2-user/  
scp -i your-key.pem your-model.joblib ec2-user@your-instance-public-ip:/home/ec2-user/
```

6. Run Your Flask Application:

- Navigate to the directory where your Flask application is located.
- Run the Flask application using the `flask run` command.
- Your Flask application should now be accessible over the internet using the public DNS or IP address of your EC2 instance.

7. Set Up Inbound Rules:

- Make sure your EC2 instance's security group allows inbound traffic on port 5000 (HTTP) from your IP address or from any IP address (0.0.0.0/0) for testing purposes.

8. Monitor Your EC2 Instance:

- Monitor the performance of your EC2 instance using CloudWatch metrics.
- Set up alarms to receive notifications for any issues or events.