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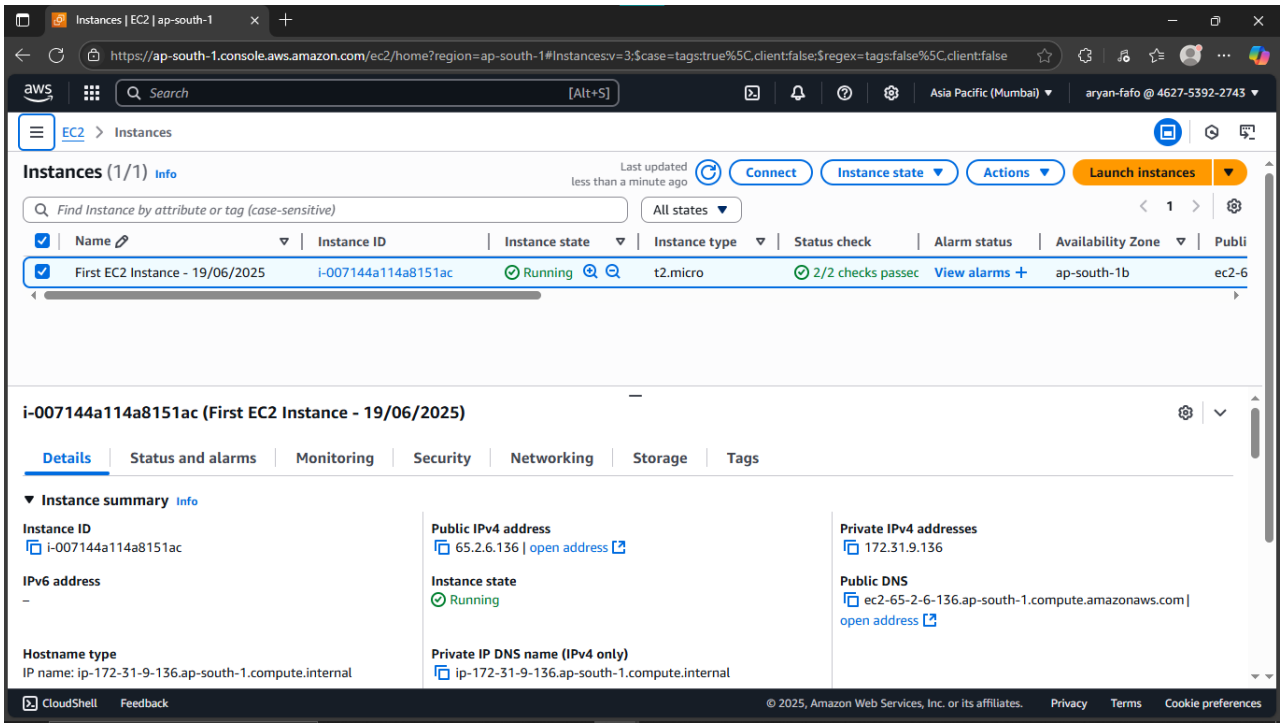
Simple Web App with Docker

Contents

Transforming Enterprises for Future

1. EC2 Instance



2. Directory Structure

```
simple-web-app/
|-- app.py
|-- Dockerfile
|-- requirements.txt
```

3. Creating the web app and Dockerfile

a. app.py

```
import os
from flask import Flask

app = Flask(__name__)

@app.route("/")
def main():
    return "Hello World!"

if __name__ == "__main__":
    app.run(debug=True)
```

b. requirements.txt

```
Flask==3.1.1
```

c. Dockerfile

```
FROM python:3.12

WORKDIR /app

COPY requirements.txt ./

RUN pip3 install -r
requirements.txt

COPY . ./

EXPOSE 5000

CMD ["python3", "-m", "flask",
"run", "--host=0.0.0.0"]
```

4. Running the web app in Docker Container

a. Building the Image

```
sudo docker build -t simple-web-app:v1 .
```

b. Running the Container

```
sudo docker run –d –p 8080:5000 simple-web-app:v1
```

5. Accessing the web app