Program 1 : Build a Docker Container from a Custom Dockerfile

Folder Structure

DEVOPSLAB

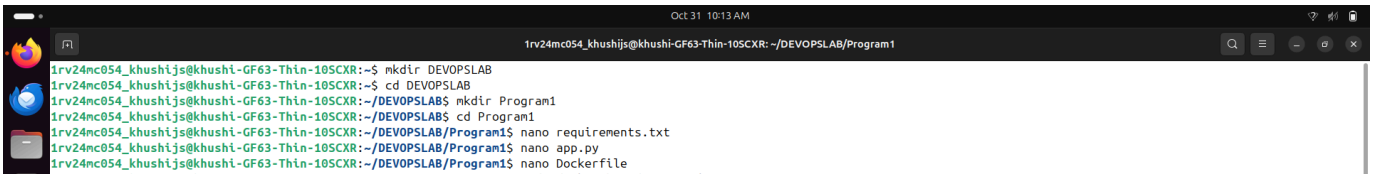
|--Program1

|--app.py

|--requirements.txt

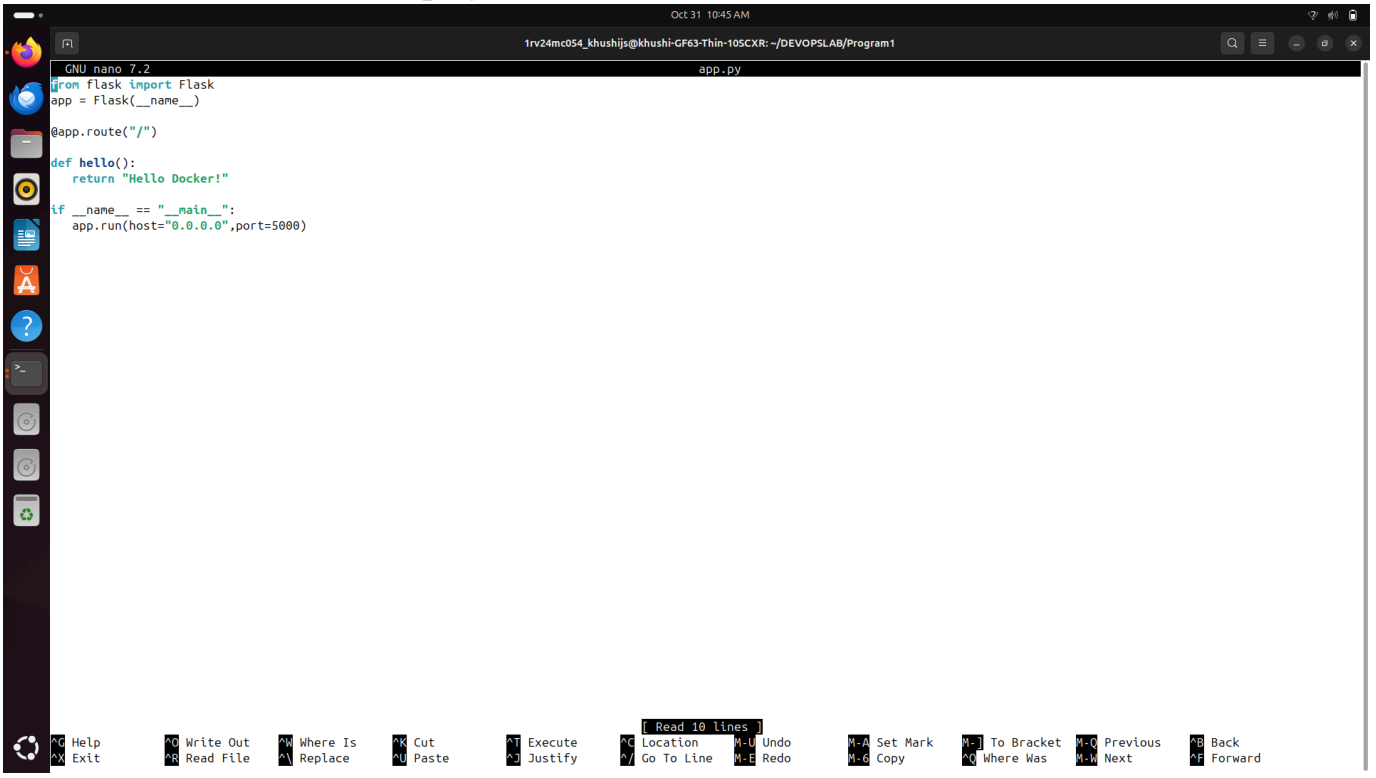
|--Dockerfile

Step 1: I've created a directory called DEVOPSLAB navigate to DEVOPSLAB directory and within that create a sub-directory with name Program1, navigate to Program1 directory and create the files such as app.py, requirements.txt and Dockerfile.

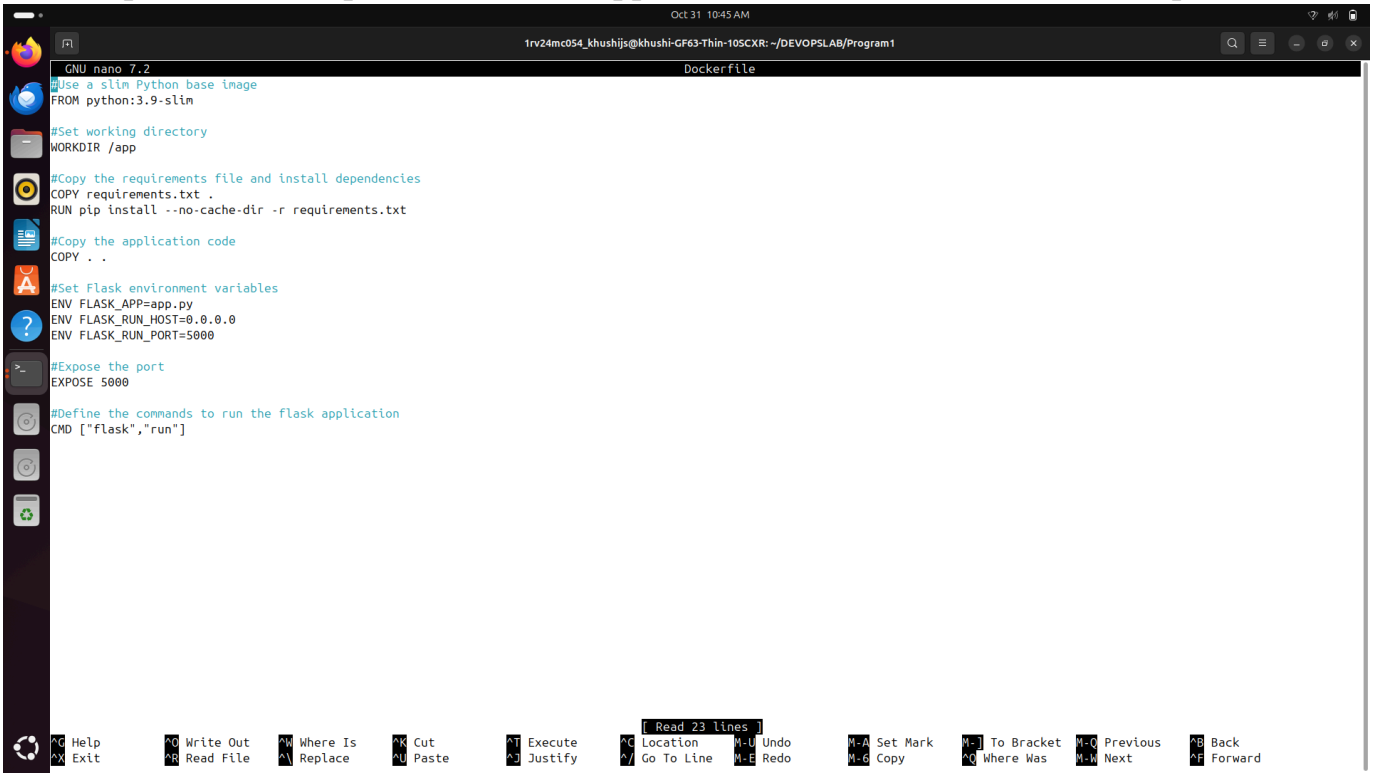


Step 2: Add the following code in requirements.txt file, which is used to install the Dependencies.

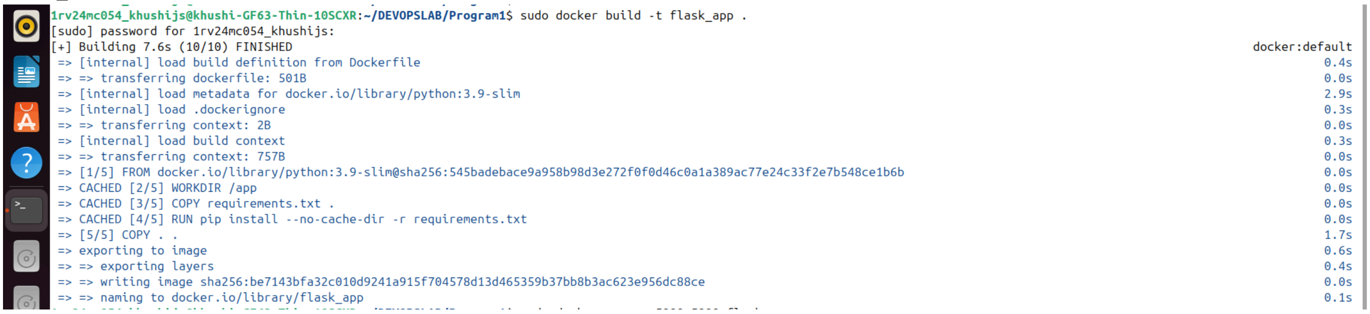
Step 3: In the app.py file, implement the following code to run a basic web server. When accessed, this server will display "Hello, Docker!".



Step 4: The following Dockerfile creates a lightweight container. It installs Python and Flask dependencies, copies the code to /app, and then runs the Flask server on port 5000.



Step 5: Next, use the docker build command to create a new image from the Dockerfile.



Step 6: Execute the docker run command to create a container from the previously built image.