PROJECT-2

Installing and enabling docker inside ubuntu terminal

Run the below commands:

- sudo apt update && sudo apt upgrade -y
- sudo apt install -y ca-certificates curl gnupg lsb-release
- sudo mkdir -p /etc/apt/keyrings
- curl -fsSL https://download.docker.com/linux/ubuntu/gpg | sudo tee /etc/apt/keyrings/docker.asc > /dev/null
- sudo chmod a+r /etc/apt/keyrings/docker.asc
- echo "deb [arch=$(dpkg --print-architecture) signed-by=/etc/apt/keyrings/docker.asc] https://download.docker.com/linux/ubuntu $(lsb_release -cs) stable" | sudo tee /etc/apt/sources.list.d/docker.list > /dev/null
- sudo apt update
- sudo apt install -y docker-ce docker-ce-cli containerd.io docker-buildx-plugin docker-compose-plugin
- sudo systemctl start docker
- sudo systemctl enable docker
- sudo docker --version
- sudo usermod -aG docker $USER
- newgrp docker

Connecting ubuntu terminal with GUI based portainer

1)sudo docker pull portainer/portainer-ce

2)sudo docker run -d -p 9000:9000 --name=portainer --restart=always \

  -v /var/run/docker.sock:/var/run/docker.sock \

  -v portainer_data:/data \

  portainer/portainer-ce

3) go to http://localhost:9000 and enter password

* Deploy an Nginx Web Server with Docker

1: Pull the Nginx Image

Run the following command to pull the official Nginx image:

```
docker pull nginx
```

2: Run an Nginx Container

Start a container and map port 80 to access it from your browser:

```bash
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docker run -d -p 8080:80 --name my-nginx nginx
```

Now, open `http://localhost:8080` in your browser, and you should see the Nginx welcome page.

3: Customize Nginx with Your Own HTML Page

1. Create a directory for your Nginx files:

   ```
   mkdir nginx_project && cd nginx_project
   ```

2. Create an `index.html` file inside this directory:

   ```html
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   <!DOCTYPE html>
   <html>
   <head>
       <title>My Dockerized Nginx</title>
   </head>
   <body>
       <h1>Hello, this is a custom Nginx page inside Docker!</h1>
   </body>
   </html>
   ```
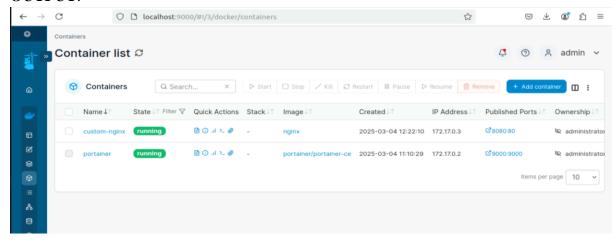
3. Run a new Nginx container with your custom HTML page:

   ```
   docker run -d -p 8081:80 --name custom-nginx -v
   $(pwd):/usr/share/nginx/html nginx
   ```

4. Refresh `http://localhost:8081`, and you should see your custom page.

OUTPUT: