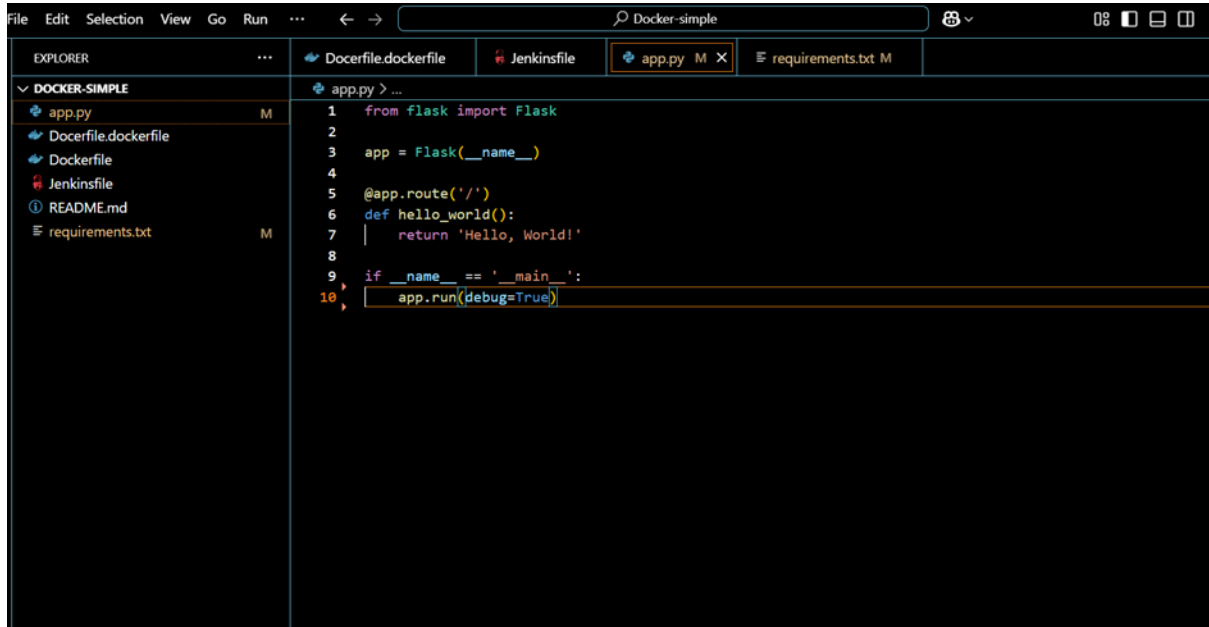


DOCKER PROJECT 1

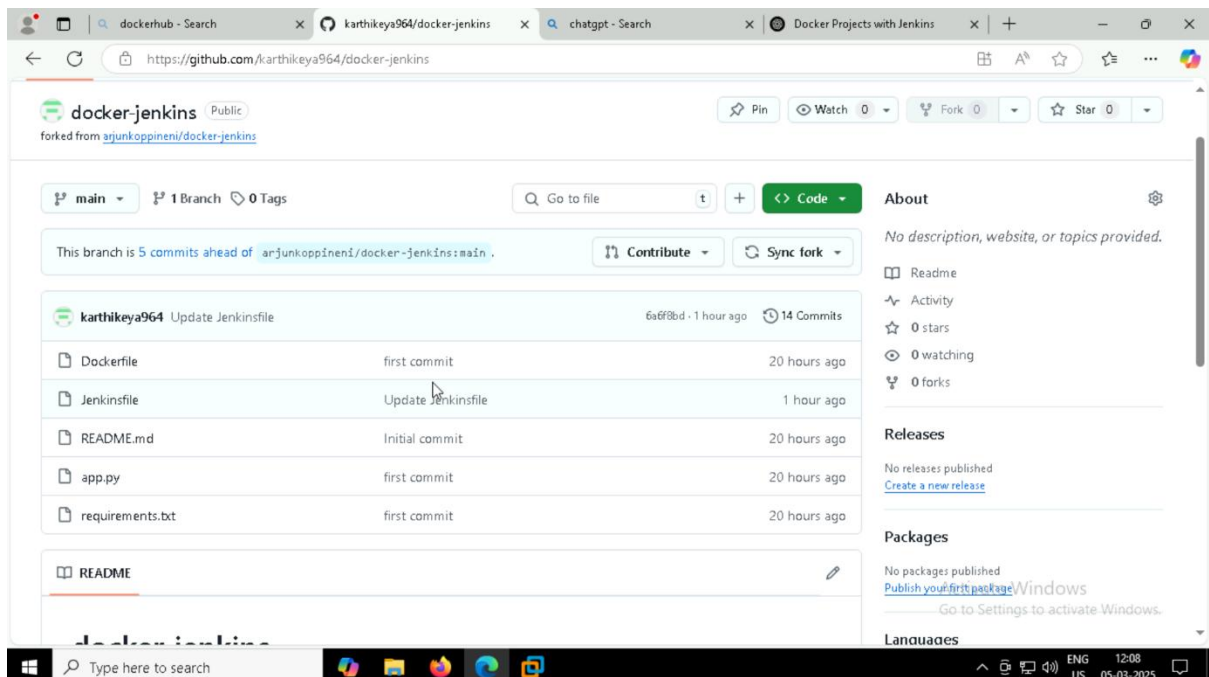
Deploy a Python Flask App using Docker

Create a Flask application (app.py) with a basic "Hello, Dockerized Flask App!" message.



The screenshot shows a code editor with a dark theme. The Explorer panel on the left shows a project named 'DOCKER-SIMPLE' with files: app.py, Dockerfile, Jenkinsfile, README.md, and requirements.txt. The main editor area shows the content of 'app.py' with the following code:

```
1 from flask import Flask
2
3 app = Flask(__name__)
4
5 @app.route('/')
6 def hello_world():
7     return 'Hello, World!'
8
9 if __name__ == '__main__':
10     app.run(debug=True)
```



Build and run the Docker container:

The screenshot shows the Jenkins web interface for a pipeline named 'my-docker-flaskapp'. The interface is displayed within a VMware Workstation window. The pipeline is in a 'Stage View' showing five stages: 'Declarative: Checkout SCM', 'Clone Repo', 'Build Docker Image', 'Push Docker Image', and 'Declarative: Post Actions'. The average stage times are 1s, 1s, 11s, 28s, and 182ms respectively. The full run time is approximately 45s. The pipeline is currently in a 'No Changes' state. The interface includes a sidebar with navigation options like 'Status', 'Changes', 'Build Now', 'Configure', 'Delete Pipeline', 'Full Stage View', 'Favorite', 'Open Blue Ocean', 'Stages', and 'Rename'. The bottom of the window shows the Windows taskbar with the search bar and system tray.

Stage	Declarative: Checkout SCM	Clone Repo	Build Docker Image	Push Docker Image	Declarative: Post Actions
Average stage times	1s	1s	11s	28s	182ms
Full run time	~45s				

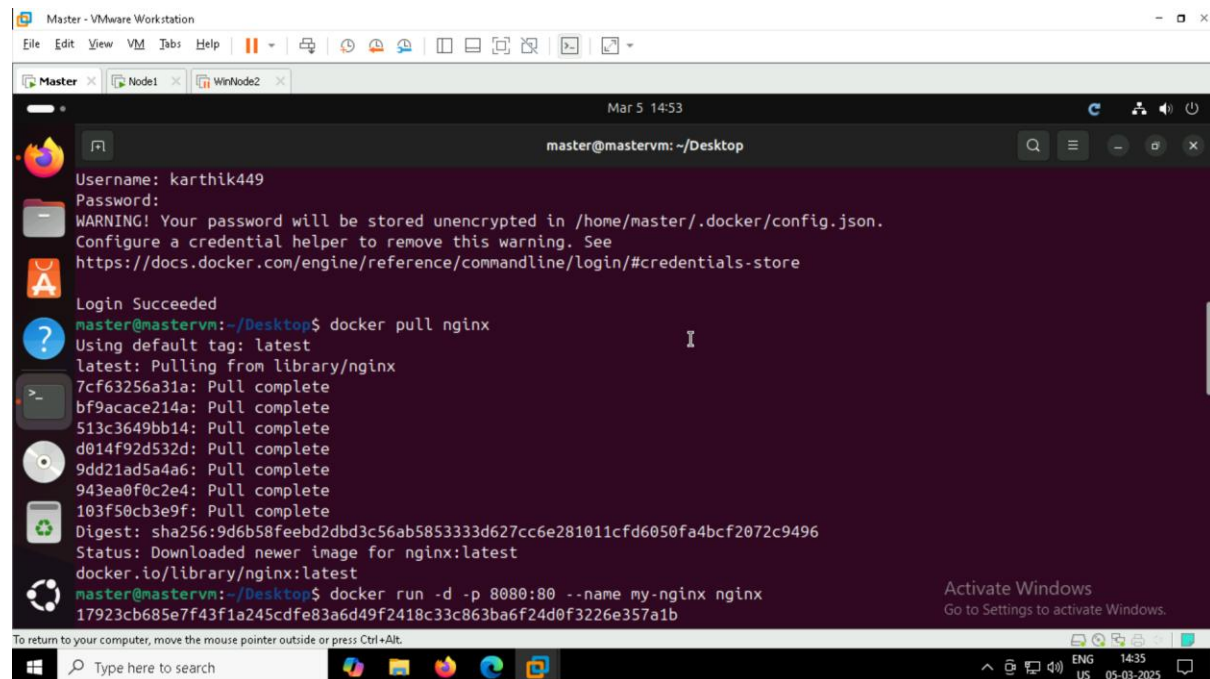
The screenshot shows the Docker Hub Repositories page for the user 'karthik449'. The page displays a table of repositories with columns for Name, Last Pushed, Contains, Visibility, and Scout. The only repository listed is 'karthik449/flask-app', which was pushed 16 minutes ago, contains an image, is public, and has an inactive scout. The page also includes a 'Create a repository' button and a 'Create an organization' link. The bottom of the window shows the Windows taskbar with the search bar and system tray.

Name	Last Pushed	Contains	Visibility	Scout
karthik449/flask-app	16 minutes ago	IMAGE	Public	Inactive

Project 2: Deploy an Nginx Web Server with Docker

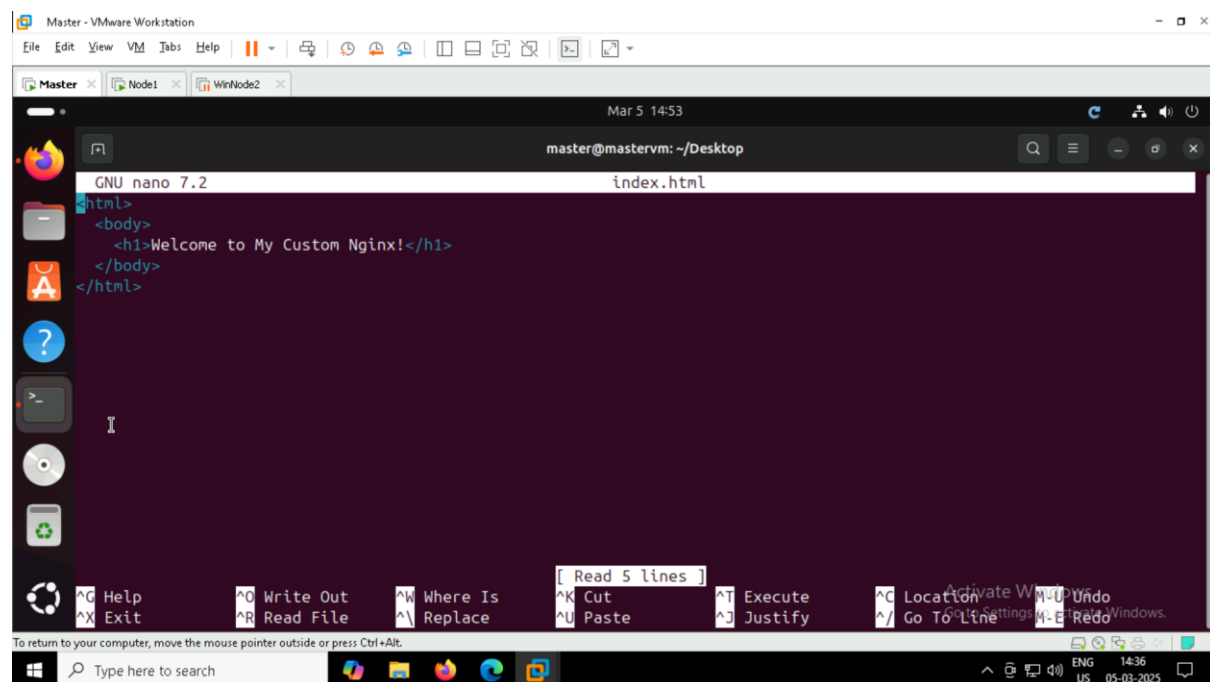
Pull the Nginx image: `docker pull nginx`

Run the Nginx container: `docker run -d -p 8080:80 --name my-nginx nginx`

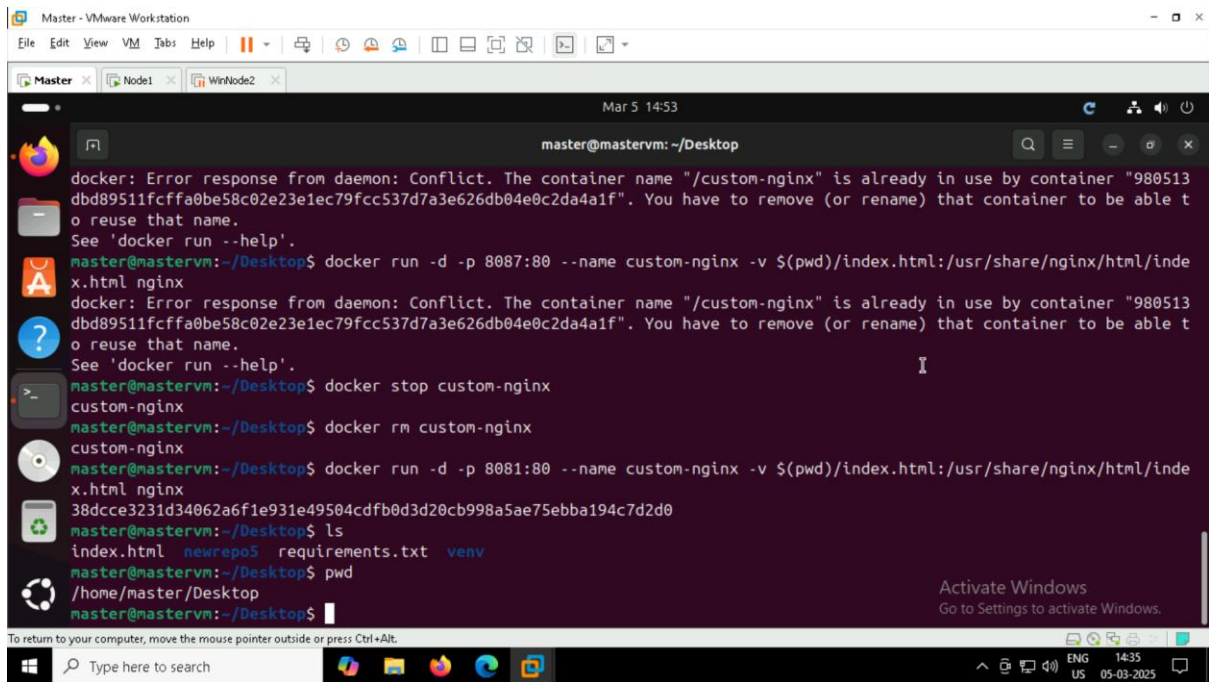


```
Master - VMware Workstation
File Edit View VM Tabs Help
Master Node1 WinNode2
Mar 5 14:53
master@mastervm: ~/Desktop
Username: karthik449
Password:
WARNING! Your password will be stored unencrypted in /home/master/.docker/config.json.
Configure a credential helper to remove this warning. See
https://docs.docker.com/engine/reference/commandline/login/#credentials-store
Login Succeeded
master@mastervm:~/Desktop$ docker pull nginx
Using default tag: latest
latest: Pulling from library/nginx
7cf63256a31a: Pull complete
bf9acace214a: Pull complete
513c3649bb14: Pull complete
d014f92d532d: Pull complete
9dd21ad5a4a6: Pull complete
943ea0f0c2e4: Pull complete
103f50cb3e9f: Pull complete
Digest: sha256:9d6b58feebd2dbd3c56ab5853333d627cc6e281011cfd6050fa4bcf2072c9496
Status: Downloaded newer image for nginx:latest
docker.io/library/nginx:latest
master@mastervm:~/Desktop$ docker run -d -p 8080:80 --name my-nginx nginx
17923cb685e7f43f1a245cdf83a6d49f2418c33c863ba6f24d0f3226e357a1b
```

INDEX.HTML FILE



```
Master - VMware Workstation
File Edit View VM Tabs Help
Master Node1 WinNode2
Mar 5 14:53
master@mastervm: ~/Desktop
GNU nano 7.2 index.html
<html>
<body>
  <h1>Welcome to My Custom Nginx!</h1>
</body>
</html>
```



The terminal window shows the following commands and output:

```
master@mastervm: ~/Desktop
docker: Error response from daemon: Conflict. The container name "/custom-nginx" is already in use by container "980513dbd89511fcffa0be58c02e23e1ec79fcc537d7a3e626db04e0c2da4a1f". You have to remove (or rename) that container to be able to reuse that name.
See 'docker run --help'.
master@mastervm:~/Desktop$ docker run -d -p 8087:80 --name custom-nginx -v $(pwd)/index.html:/usr/share/nginx/html/index.html nginx
docker: Error response from daemon: Conflict. The container name "/custom-nginx" is already in use by container "980513dbd89511fcffa0be58c02e23e1ec79fcc537d7a3e626db04e0c2da4a1f". You have to remove (or rename) that container to be able to reuse that name.
See 'docker run --help'.
master@mastervm:~/Desktop$ docker stop custom-nginx
custom-nginx
master@mastervm:~/Desktop$ docker rm custom-nginx
custom-nginx
master@mastervm:~/Desktop$ docker run -d -p 8081:80 --name custom-nginx -v $(pwd)/index.html:/usr/share/nginx/html/index.html nginx
38dcce3231d34062a6f1e931e49504cdfb0d3d20cb998a5ae75ebba194c7d2d0
master@mastervm:~/Desktop$ ls
index.html  newrepo5  requirements.txt  venv
master@mastervm:~/Desktop$ pwd
/home/master/Desktop
master@mastervm:~/Desktop$
```

OUTPUT:-

Test by visiting <http://localhost:8081>

