

PROGRAM 1

Build a Docker Container from a custom Docker File

Step 1 : Create the following files inside a folder (DockerFile and sample.txt.txt)

```
Terminal
└── bash ┤ dockerdemo ┤ 0ms Φ
  └── cd Documents/dockerdemo/
└── bash ┤ dockerdemo ┤ 10ms Φ
  └── sudo nano Dockerfile
[sudo] password for tantravruksha:
└── bash ┤ dockerdemo ┤ 4s 458ms Φ
  └── cat Dockerfile
#Creating docker file for program 1

#name:B M MADHUCHANDRA
#31st october 2025

FROM ubuntu:20.04

LABEL maintainer="hjsh"

LABEL version="1.0"

RUN apt-get update && apt-get install -y curl

COPY sample.txt /sample.txt

RUN echo "curl executed successfully"

ENTRYPOINT ["/bin/sh"]

└── bash ┤ dockerdemo ┤ 15ms Φ
  └── sudo nano sample.txt
└── bash ┤ dockerdemo ┤ 2s 619ms Φ
  └── cat sample.txt
hello this is madhu
```

Step 2 : Open that in a terminal. Run these commands to build and run Docker

```
↳ bash ➔ dockerdemo ➔ 40ms 
  docker build -t prg1:1.1 .
[+] Building 2.3s (9/9) FINISHED
=> [internal] load build definition from Dockerfile
=> => transferring dockerfile: 324B
=> [internal] load metadata for docker.io/library/ubuntu:20.04
=> [internal] load .dockerignore
=> => transferring context: 2B
=> [1/4] FROM docker.io/library/ubuntu:20.04@sha256:8feb4d8ca5354def3d8fce243717141ce31e2c428701f6682bd2faf15388214
=> [internal] load build context
=> => transferring context: 57B
=> CACHED [2/4] RUN apt-get update && apt-get install -y curl
=> CACHED [3/4] COPY sample.txt /sample.txt
=> CACHED [4/4] RUN echo "curl executed successfully"
=> exporting to image
=> => exporting layers
=> => writing image sha256:c578b06e28944a35632bbc5d57196d29f9424d035b478c5e20c05d8539613304
=> => naming to docker.io/library/prg1:1.1
↳ bash ➔ dockerdemo ➔ 2s 501ms 
  docker images
REPOSITORY      TAG      IMAGE ID      CREATED      SIZE
prg1            1.1      c578b06e2894   14 hours ago  147MB
```

Step 3 : The output of the program

docker images

```
↳ bash ➔ dockerdemo ➔ 2s 501ms 
  docker images
REPOSITORY      TAG      IMAGE ID      CREATED      SIZE
prg1            1.1      c578b06e2894   14 hours ago  147MB
↳ bash ➔ dockerdemo ➔ 36ms
```

docker ps/ps -a

```
↳ bash ➔ dockerdemo ➔ 38ms 
  docker ps -a
CONTAINER ID      IMAGE      COMMAND      CREATED      STATUS      PORTS      NAMES
74cf68cbdd6b    prg1:1.1    "/bin/sh"    39 seconds ago   Exited (0) 26 seconds ago
↳ bash ➔ dockerdemo ➔ 40ms
```