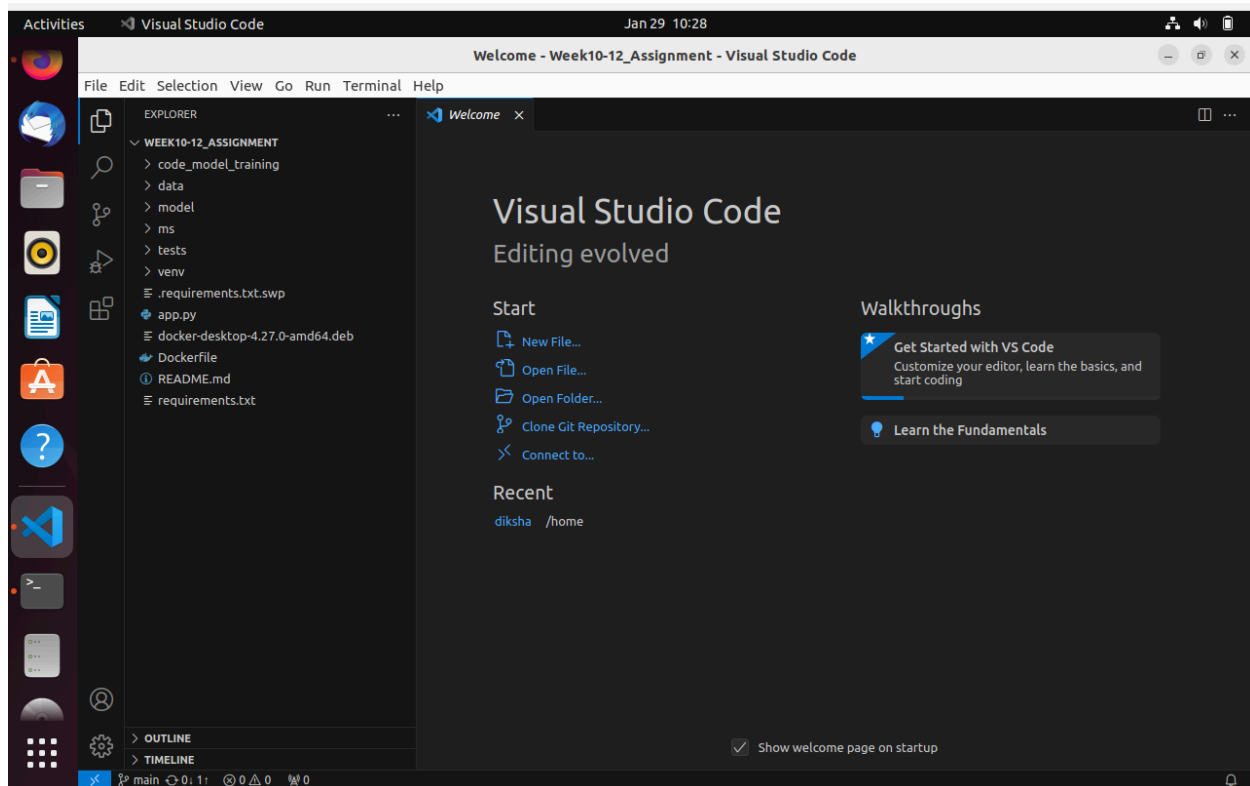


Commands Used after Installing Ubuntu in VirtualBox

After cloning github repository...

```
diksha@diksha:~$ sudo snap install --classic code # or code-insiders
code 8b377503 from Visual Studio Code (vscode**) installed
diksha@diksha:~$ code .
diksha@diksha:~$
```



```
diksha@diksha:~$ ls
Desktop  Downloads  Music      Public  Templates  Week10-12_Assignment
Documents  env        Pictures   snap    Videos
diksha@diksha:~$ cd Week10-12_Assignment/
```

```
diksha@diksha:~/Week10-12_Assignment$ python3 -m venv venv
diksha@diksha:~/Week10-12_Assignment$ source venv/bin/activate
```

```
(venv) diksha@diksha:~/Week10-12_Assignment$ pip install -r requirements.txt
Collecting click==8.0.3
  Downloading click-8.0.3-py3-none-any.whl (97 kB)
    97.5/97.5 KB 892.3 KB/s eta 0:00:00
Collecting cycler==0.11.0
  Downloading cycler-0.11.0-py3-none-any.whl (6.4 kB)
Collecting Flask==2.0.2
  Downloading Flask-2.0.2-py3-none-any.whl (95 kB)
    95.2/95.2 KB 4.4 MB/s eta 0:00:00
Collecting fonttools==4.28.5
  Downloading fonttools-4.28.5-py3-none-any.whl (890 kB)
    890.4/890.4 KB 13.0 MB/s eta 0:00:00
Collecting gunicorn==20.1.0
  Downloading gunicorn-20.1.0-py3-none-any.whl (79 kB)
    79.5/79.5 KB 1.7 MB/s eta 0:00:00
Collecting itsdangerous==2.0.1
  Downloading itsdangerous-2.0.1-py3-none-any.whl (18 kB)
Collecting Jinja2==3.0.3
  Downloading Jinja2-3.0.3-py3-none-any.whl (133 kB)
    133.6/133.6 KB 5.5 MB/s eta 0:00:00
Collecting joblib==1.1.0
  Downloading joblib-1.1.0-py2.py3-none-any.whl (306 kB)
    307.0/307.0 KB 7.5 MB/s eta 0:00:00
Collecting kiwisolver==1.3.2
  Downloading kiwisolver-1.3.2-cp310-cp310-manylinux_2_12_x86_64.manylinux2010_x86_64.whl (1.6 MB)
    1.6/1.6 MB 6.9 MB/s eta 0:00:00
Collecting MarkupSafe==2.0.1
  Downloading MarkupSafe-2.0.1-cp310-cp310-manylinux_2_5_x86_64.manylinux1_x86_64.manylinux_2_12_x86_64.manylinux2010_x86_64.whl (30 kB)
Collecting matplotlib==3.5.1
  Downloading matplotlib-3.5.1-cp310-cp310-manylinux_2_17_x86_64.manylinux2014_x86_64.whl (11.9 MB)
    11.9/11.9 MB 10.5 MB/s eta 0:00:00
Collecting numpy==1.22.0
  Downloading numpy-1.22.0-cp310-cp310-manylinux_2_17_x86_64.manylinux2014_x86_64.whl (16.8 MB)
    16.8/16.8 MB 1.3 MB/s eta 0:00:00
Collecting packaging==21.3
  Downloading packaging-21.3-py3-none-any.whl (40 kB)
    40.8/40.8 KB 2.5 MB/s eta 0:00:00
Collecting pandas==1.3.5
  Downloading pandas-1.3.5-cp310-cp310-manylinux_2_17_x86_64.manylinux2014_x86_64.whl (11.5 MB)
    11.5/11.5 MB 9.9 MB/s eta 0:00:00
Collecting Pillow==9.0.0
  Downloading Pillow-9.0.0-cp310-cp310-manylinux_2_17_x86_64.manylinux2014_x86_64.whl (4.3 MB)
    4.3/4.3 MB 11.7 MB/s eta 0:00:00
Collecting pyparsing==3.0.6
  Downloading pyparsing-3.0.6-py3-none-any.whl (97 kB)
    97.6/97.6 KB 5.9 MB/s eta 0:00:00
Collecting python-dateutil==2.8.2
```

```
(venv) diksha@diksha:~/Week10-12_Assignment$ sudo apt-get update
Hit:1 http://security.ubuntu.com/ubuntu jammy-security InRelease
Hit:2 http://in.archive.ubuntu.com/ubuntu jammy InRelease
Hit:3 https://ppa.launchpadcontent.net/deadsnakes/ppa/ubuntu jammy InRelease
Hit:4 http://in.archive.ubuntu.com/ubuntu jammy-updates InRelease
Hit:5 http://in.archive.ubuntu.com/ubuntu jammy-backports InRelease
Reading package lists... Done
(venv) diksha@diksha:~/Week10-12_Assignment$ sudo apt-get install ./docker-desktop-4.27.0-amd64.deb
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
Note, selecting 'docker-desktop' instead of './docker-desktop-4.27.0-amd64.deb'
Some packages could not be installed. This may mean that you have
requested an impossible situation or if you are using the unstable
distribution that some required packages have not yet been created
or been moved out of Incoming.
The following information may help to resolve the situation:

The following packages have unmet dependencies:
docker-desktop : Depends: docker-ce-cli but it is not installable
E: Unable to correct problems, you have held broken packages.
```

```
(venv) diksha@diksha:~/Week10-12_Assignment$ docker compose version
Docker Compose version v2.17.3
```

```
docker --version
Docker version 23.0.5, build bc4487a
```

```
docker version
Client: Docker Engine - Community
  Cloud integration: v1.0.31
  Version:          23.0.5
  API version:      1.42
```

```
(venv) diksha@diksha:~/Week10-12_Assignment$ sudo apt install docker.io
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following packages were automatically installed and are no longer required:
  chromium-codecs-ffmpeg-extra gstreamer1.0-vaapi i965-va-driver
  intel-media-va-driver libaacs0 libaom3 libass9 libavcodec58 libavformat58
  libavutil56 libbdplus0 libblas3 libbluray2 libbs2b0 libchromaprint1
  libcodec2-1.0 libdav1d5 libflite1 libgme0 libgsm1
  libgstreamer-plugins-bad1.0-0 libigdgmm12 liblilv-0-0 libllvm15 libmfx1
  libmysofa1 libnorm1 libopenmpt0 libpgm-5.3-0 libpostproc55 librabbitmq4
  librubberband2 libserd-0-0 libshine3 libsnappy1v5 libsord-0-0 libsratom-0-0
  libsrt1.4-gnutls libssh-gcrypt-4 libswresample3 libswscale5 libudfread0
  libva-drm2 libva-wayland2 libva-x11-2 libva2 libvdpau1 libvidstab1.1
  libx265-199 libxvidcore4 libzim2 libzmq5 libzvbi-common libzvbi0
  mesa-va-drivers mesa-va-drivers-pocketsphinx-en-us systemd-hwe-hwdb
  va-driver-all vdpau-driver-all
Use 'sudo apt autoremove' to remove them.
The following additional packages will be installed:
  bridge-utils containerd pigz runc ubuntu-fan
Suggested packages:
  ifupdown aufs-tools btrfs-progs cgroupfs-mount | cgroup-lite debootstrap
  docker-doc rinse zfs-fuse | zfsutils
The following NEW packages will be installed:
  bridge-utils containerd docker.io pigz runc ubuntu-fan
0 upgraded, 6 newly installed, 0 to remove and 437 not upgraded.
Need to get 69.4 MB of archives.
After this operation, 266 MB of additional disk space will be used.
Do you want to continue? [Y/n] y
```

```
(venv) diksha@diksha:~/Week10-12_Assignment$ # Add Docker's official GPG key:
sudo apt-get update
sudo apt-get install ca-certificates curl
sudo install -m 0755 -d /etc/apt/keyrings
sudo curl -fsSL https://download.docker.com/linux/ubuntu/gpg -o /etc/apt/keyrings/docker.asc
sudo chmod a+r /etc/apt/keyrings/docker.asc

# Add the repository to Apt sources:
echo \
  "deb [arch=$(dpkg --print-architecture) signed-by=/etc/apt/keyrings/docker.asc] https://download.docker.com/linux/ubuntu \
  $(. /etc/os-release && echo "$VERSION_CODENAME") stable" | \
  sudo tee /etc/apt/sources.list.d/docker.list > /dev/null
sudo apt-get update
Hit:1 http://in.archive.ubuntu.com/ubuntu jammy InRelease
Hit:2 https://ppa.launchpadcontent.net/deadsnakes/ppa/ubuntu jammy InRelease
Hit:3 http://security.ubuntu.com/ubuntu jammy-security InRelease
Hit:4 http://in.archive.ubuntu.com/ubuntu jammy-updates InRelease
Hit:5 http://in.archive.ubuntu.com/ubuntu jammy-backports InRelease
Reading package lists... Done
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following packages were automatically installed and are no longer required:
  chromium-codecs-ffmpeg-extra gstreamer1.0-vaapi i965-va-driver
  intel-media-va-driver libaacs0 libaom3 libass9 libavcodec58 libavformat58
  libavutil56 libbdplus0 libblas3 libbluray2 libbs2b0 libchromaprint1
  libcodec2-1.0 libdavid5 libflite1 libgme0 libgsm1
  libgstreamer-plugins-bad1.0-0 libgstreamer1.0-0 liblilv-0-0 libllvm15 libmfx1
```

```
(venv) diksha@diksha:~/Week10-12_Assignment$ sudo apt-get install docker-ce docker-ce-cli containerd.io docker-buildx-plugin docker-compose-plugin
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following packages were automatically installed and are no longer required:
  bridge-utils chromium-codecs-ffmpeg-extra gstreamer1.0-vaapi i965-va-driver
  intel-media-va-driver libaacs0 libaom3 libass9 libavcodec58 libavformat58
  libavutil56 libbdplus0 libblas3 libbluray2 libbs2b0 libchromaprint1
  libcodec2-1.0 libdavid5 libflite1 libgme0 libgsm1
  libgstreamer-plugins-bad1.0-0 libgstreamer1.0-0 liblilv-0-0 libllvm15 libmfx1
  libmysofa1 libnorm1 libopenmpt0 libpgm-5.3-0 libpostproc55 librabbitmq4
  librubberband2 libserd-0-0 libshine3 libsnappy1v5 libsord-0-0 libsratom-0-0
  libstr1.4-gnutls libssh-gcrypt-4 libswresample3 libswscale5 libudfread0
  libva-drm2 libva-wayland2 libva-x11-2 libva2 libvdpau1 libvidstab1.1
  libx265-199 libxvidcore4 libzimg2 libzmq5 libzvbi-common libzvbi0
  mesa-va-drivers mesa-vdpau-drivers pocketsphinx-en-us systemd-hwe-hwdb
  ubuntu-fan va-driver-all vdpau-driver-all
Use 'sudo apt autoremove' to remove them.
The following additional packages will be installed:
  docker-ce-rootless-extras libslirp0 slirp4netns
Suggested packages:
  aufs-tools cgroupfs-mount | cgroup-lite
The following packages will be REMOVED:
  containerd docker.io runc
The following NEW packages will be installed:
  containerd.io docker-buildx-plugin docker-ce docker-ce-cli
  docker-ce-rootless-extras docker-compose-plugin libslirp0 slirp4netns
0 upgraded, 8 newly installed, 3 to remove and 435 not upgraded.
Need to get 117 MB of archives.
After this operation, 153 MB of additional disk space will be used.
```

```
(venv) diksha@diksha:~/Week10-12_Assignment$ sudo service docker start
sudo docker run hello-world
Unable to find image 'hello-world:latest' locally
latest: Pulling from library/hello-world
c1ec31eb5944: Pull complete
Digest: sha256:4bd78111b6914a99dbc560e6a20eab57ff6655aea4a80c50b0c5491968cbc2e6
Status: Downloaded newer image for hello-world:latest
```

Hello from Docker!

This message shows that your installation appears to be working correctly.

To generate this message, Docker took the following steps:

1. The Docker client contacted the Docker daemon.
2. The Docker daemon pulled the "hello-world" image from the Docker Hub.
(amd64)
3. The Docker daemon created a new container from that image which runs the executable that produces the output you are currently reading.
4. The Docker daemon streamed that output to the Docker client, which sent it to your terminal.

To try something more ambitious, you can run an Ubuntu container with:

```
$ docker run -it ubuntu bash
```

Share images, automate workflows, and more with a free Docker ID:

<https://hub.docker.com/>

For more examples and ideas, visit:

<https://docs.docker.com/get-started/>


```
(venv) diksha@diksha:~/Week10-12_Assignment$ sudo apt install docker
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following packages were automatically installed and are no longer required:
  bridge-utils chromium-codecs-ffmpeg-extra gstreamer1.0-vaapi i965-va-driver
  intel-media-va-driver libaacs0 libaom3 libass9 libavcodec58 libavformat58
  libavutil56 libbdplus0 libblas3 libbluray2 libbs2b0 libchromaprint1
  libcodec2-1.0 libdav1d5 libflite1 libgme0 libgsm1
  libgstreamer-plugins-bad1.0-0 libigdgmm12 liblilv-0-0 libllvm15 libmfx1
  libmysofa1 libnorm1 libopenmpt0 libpgm-5.3-0 libpostproc55 librabbitmq4
  librubberband2 libserd-0-0 libshine3 libsnappy1v5 libsord-0-0 libsratom-0-0
  libsrtp1.4-gnutls libssh-gcrypt-4 libswresample3 libswscale5 libudfread0
  libva-drm2 libva-wayland2 libva-x11-2 libva2 libvdpau1 libvidstab1.1
  libx265-199 libxvidcore4 libzimg2 libzmq5 libzvbi-common libzvbi0
  mesa-va-drivers mesa-vdpau-drivers pocketsphinx-en-us systemd-hwe-hwdb
  ubuntu-fan va-driver-all vdpau-driver-all
Use 'sudo apt autoremove' to remove them.
The following additional packages will be installed:
  wmdocker
The following NEW packages will be installed:
  docker wmdocker
0 upgraded, 2 newly installed, 0 to remove and 435 not upgraded.
Need to get 14.3 kB of archives.
After this operation, 58.4 kB of additional disk space will be used.
Do you want to continue? [Y/n] y
Get:1 http://in.archive.ubuntu.com/ubuntu jammy/universe amd64 wmdocker amd64 1.5-2 [13.0 kB]
Get:2 http://in.archive.ubuntu.com/ubuntu jammy/universe amd64 docker all 1.5-2 [1,316 B]
Fetched 14.3 kB in 2s (7,310 B/s)
Selecting previously unselected package wmdocker.
(Reading database ... 202155 files and directories currently installed.)
```

```
(venv) diksha@diksha:~/Week10-12_Assignment$ sudo apt-get install docker-ce docker-ce-cli containerd.io -y
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
containerd.io is already the newest version (1.6.27-1).
docker-ce-cli is already the newest version (5:25.0.1-1~ubuntu.22.04~jammy).
docker-ce is already the newest version (5:25.0.1-1~ubuntu.22.04~jammy).
The following packages were automatically installed and are no longer required:
  bridge-utils chromium-codecs-ffmpeg-extra gstreamer1.0-vaapi i965-va-driver
  intel-media-va-driver libaacs0 libaom3 libass9 libavcodec58 libavformat58
  libavutil56 libbdplus0 libblas3 libbluray2 libbs2b0 libchromaprint1
  libcodec2-1.0 libdav1d5 libflite1 libgme0 libgsm1
  libgstreamer-plugins-bad1.0-0 libigdgmm12 liblilv-0-0 libllvm15 libmfx1
  libmysofa1 libnorm1 libopenmpt0 libpgm-5.3-0 libpostproc55 librabbitmq4
  librubberband2 libserd-0-0 libshine3 libsnappy1v5 libsord-0-0 libsratom-0-0
  libsrtp1.4-gnutls libssh-gcrypt-4 libswresample3 libswscale5 libudfread0
  libva-drm2 libva-wayland2 libva-x11-2 libva2 libvdpau1 libvidstab1.1
  libx265-199 libxvidcore4 libzimg2 libzmq5 libzvbi-common libzvbi0
  mesa-va-drivers mesa-vdpau-drivers pocketsphinx-en-us systemd-hwe-hwdb
  ubuntu-fan va-driver-all vdpau-driver-all
Use 'sudo apt autoremove' to remove them.
0 upgraded, 0 newly installed, 0 to remove and 435 not upgraded.
(venv) diksha@diksha:~/Week10-12_Assignment$ sudo docker version
Client: Docker Engine - Community
Version:      25.0.1
API version:  1.44
Go version:   go1.21.6
Git commit:   29cf629
Built:        Tue Jan 23 23:09:23 2024
OS/Arch:      linux/amd64
Context:      default
```

```
(venv) diksha@diksha:~/Week10-12_Assignment$ curl -sSL https://get.docker.com/ | sudo sh
# Executing docker install script, commit: e5543d473431b782227f8908005543bb4389b8de
Warning: the "docker" command appears to already exist on this system.

If you already have Docker installed, this script can cause trouble, which is
why we're displaying this warning and provide the opportunity to cancel the
installation.

If you installed the current Docker package using this script and are using it
again to update Docker, you can safely ignore this message.

You may press Ctrl+C now to abort this script.
+ sleep 20
+ sh -c apt-get update -qq >/dev/null
W: Target Packages (stable/binary-amd64/Packages) is configured multiple times in /etc/apt/sources.list.d/archive_uri-https_download_docker_com_linux_ubuntu-jammy.list:1 and /etc/apt/sources.list.d/docker.list:1
W: Target Packages (stable/binary-all/Packages) is configured multiple times in /etc/apt/sources.list.d/archive_uri-https_download_docker_com_linux_ubuntu-jammy.list:1 and /etc/apt/sources.list.d/docker.list:1
W: Target Translations (stable/i18n/Translation-en_IN) is configured multiple times in /etc/apt/sources.list.d/archive_uri-https_download_docker_com_linux_ubuntu-jammy.list:1 and /etc/apt/sources.list.d/docker.list:1
W: Target Translations (stable/i18n/Translation-en) is configured multiple times in /etc/apt/sources.list.d/archive_uri-https_download_docker_com_linux_ubuntu-jammy.list:1 and /etc/apt/sources.list.d/docker.list:1
W: Target DEP-11 (stable/dep11/Components-amd64.yml) is configured multiple times in /etc/apt/sources.list.d/archive_uri-https_download_docker_com_linux_ubuntu-jammy.list:1 and /etc/apt/sources.list.d/docker.list:1
W: Target DEP-11 (stable/dep11/Components-all.yml) is configured multiple times in /etc/apt/sources.list.d/archive_uri-https_download_docker_com_linux_ubuntu-jammy.list:1 and /etc/apt/sources.list.d/docker.list:1
W: Target DEP-11-icons-small (stable/dep11/icons-48x48.tar) is configured multiple times in /etc/apt/sources.list.d/archive_uri-https_download_docker_com_linux_ubuntu-jammy.list:1 and /etc/apt/sources.list.d/docker.list:1
W: Target DEP-11-icons (stable/dep11/icons-64x64.tar) is configured multiple times in /etc/apt/sources.list.d/archive_u
```

```
(venv) diksha@diksha:~/Week10-12_Assignment$ sudo docker build -t my-micro-app .[+] Building 195.9s (11/11) FINISHED
docker:default
=> [internal] load build definition from Dockerfile 0.0s
=> => transferring dockerfile: 358B 0.0s
=> [internal] load metadata for docker.io/library/python:3.9 3.3s
=> [internal] load .dockerignore 0.0s
=> => transferring context: 2B 0.0s
=> [stage-1 1/7] FROM docker.io/library/python:3.9@sha256:3d9dbe78e1f4 109.8s
=> => resolve docker.io/library/python:3.9@sha256:3d9dbe78e1f45ed2eb525b 0.1s
=> => sha256:3d9dbe78e1f45ed2eb525b462cdeb02247cc09567133 1.86kB / 1.86kB 0.0s
=> => sha256:3595702fda76d4fd5948ebce77bf86d3dba3dcbb337 7.33kB / 7.33kB 0.0s
=> => sha256:5d635c0e6088939196d243de1b3b3c507072dde6020 2.01kB / 2.01kB 0.0s
=> => sha256:1b13d4e1a46e5e969702ec92b7c787c1b6891bfff 49.56MB / 49.56MB 10.4s
=> => sha256:1c74526957fc2157e8b0989072dc99b9582b398c1 24.05MB / 24.05MB 9.3s
=> => sha256:30d85599795460b2d9d24c6b87c53ec60555b601 64.14MB / 64.14MB 53.7s
=> => sha256:ad5739181616b815fae7edc6bba689496674ac 211.10MB / 211.10MB 56.1s
=> => sha256:75e2b45cbee50cea4b3ed4f4fe167ad5994622d77a 6.39MB / 6.39MB 13.4s
=> => extracting sha256:1b13d4e1a46e5e969702ec92b7c787c1b6891bfff7c21ad3 46.3s
=> => sha256:2085960a02e94ddb81e797cc584175f65c472220 15.82MB / 15.82MB 26.7s
=> => sha256:5e8caa1d5d83d0eeed188822d7aa33405755494d07b32a 244B / 244B 27.5s
=> => sha256:0cd6f205cb3b24da1bde0b8969849692a2d3fa312f 2.85MB / 2.85MB 31.2s
=> => extracting sha256:1c74526957fc2157e8b0989072dc99b9582b398c12d1dcd4 2.0s
=> => extracting sha256:30d85599795460b2d9d24c6b87c53ec60555b601705cc83 10.5s
=> => extracting sha256:ad5739181616b815fae7edc6bba689496674acbcf44e48a 32.8s
=> => extracting sha256:75e2b45cbee50cea4b3ed4f4fe167ad5994622d77a54adde 0.8s
=> => extracting sha256:2085960a02e94ddb81e797cc584175f65c472220c252bc6e 3.3s
=> => extracting sha256:5e8caa1d5d83d0eeed188822d7aa33405755494d07b32ade 0.0s
=> => extracting sha256:0cd6f205cb3b24da1bde0b8969849692a2d3fa312f1e86e2 0.6s
=> [internal] load build context 20.3s
=> => transferring context: 1.22MB 20.1s
```

```
(venv) diksha@diksha:~/Week10-12_Assignment$ sudo docker run -d -p 5000:5000 my-micro-app
eab5392f05d3fcf48b6fe25fab3e1406ab4b4deea6cb402f52beb589f5b11a64
(venv) diksha@diksha:~/Week10-12_Assignment$
```

