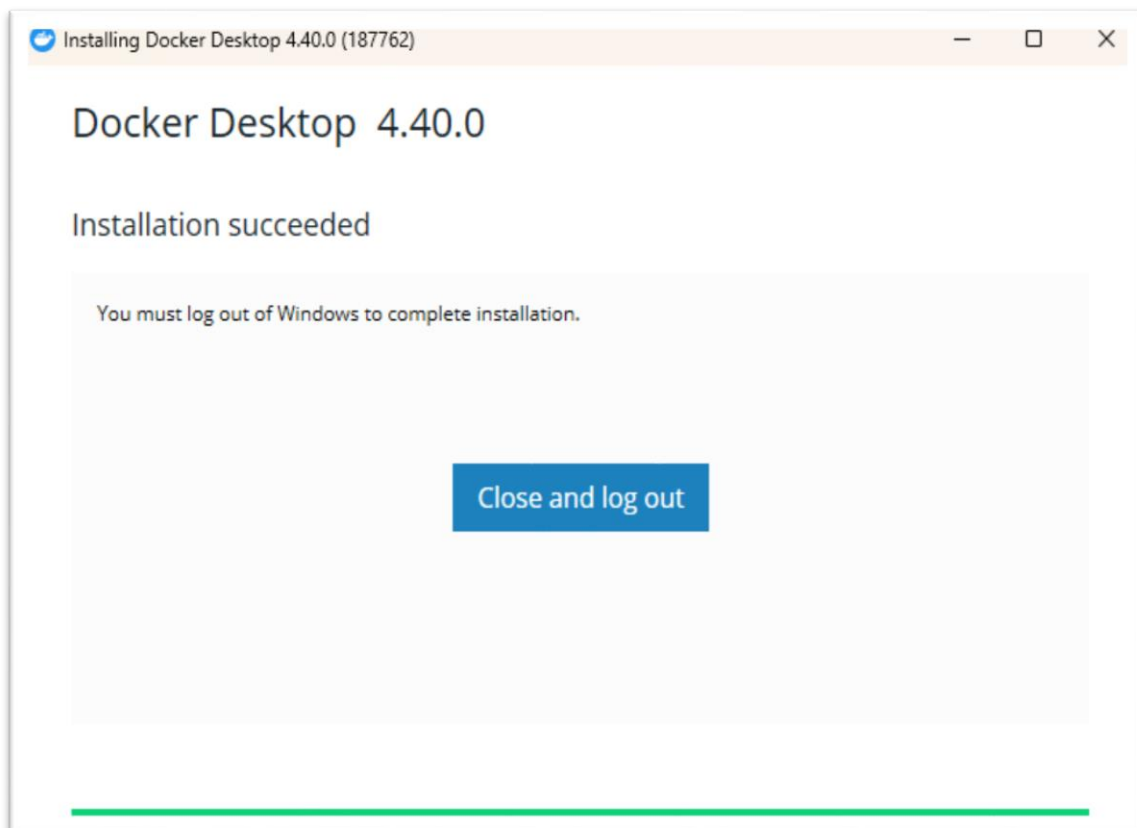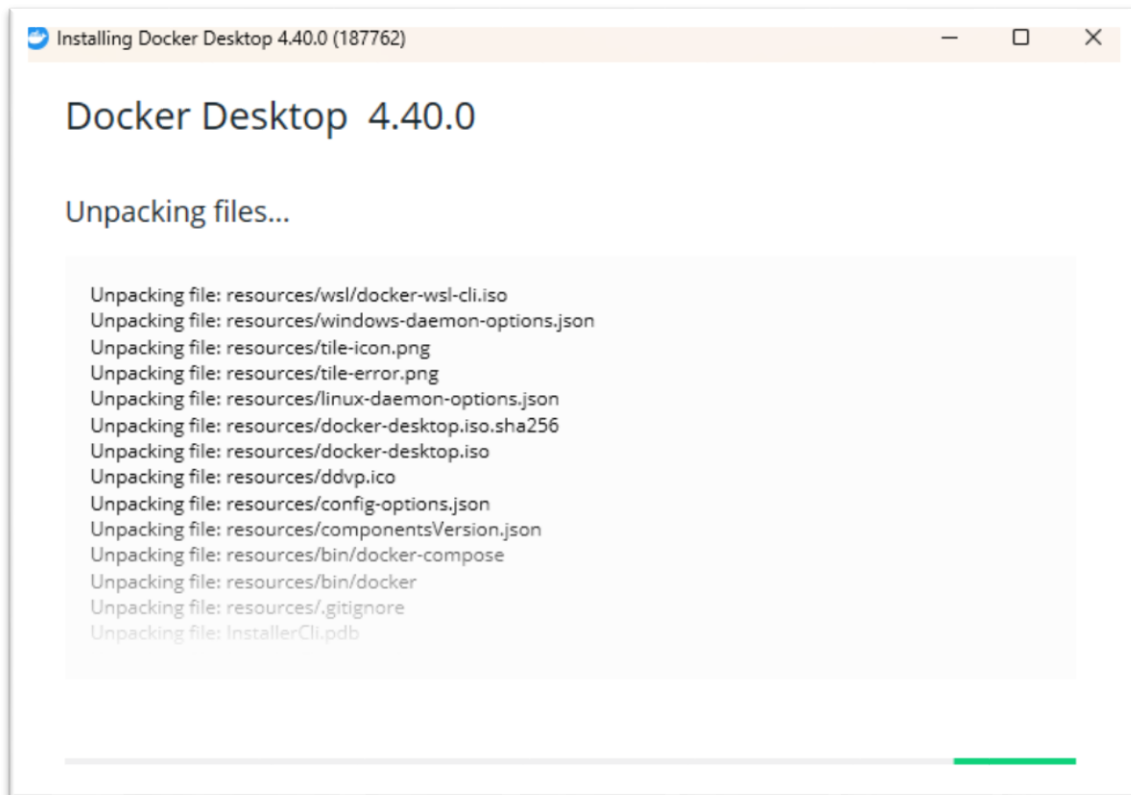# Experiment no 5

Name-Bilal Mirje   **Rollno**-64   **Div**- A   **Batch**-A3

Containerization by running and building a **Docker** Container :-

Finish setting up Docker Desktop
version 4.40.0 (187762)

Complete the installation of Docker Desktop.

(●) **Use recommended settings (requires administrator password)**
Docker Desktop automatically sets the necessary configurations that work for most developers.

(○) **Use advanced settings**
You manually set your preferred configurations.

Finish

---

docker desktop PERSONAL

— ☐ ✕

Skip

Welcome to Docker

Work   Personal

Using Docker for work?
We recommend signing in with your work email address.

Work email address

Continue
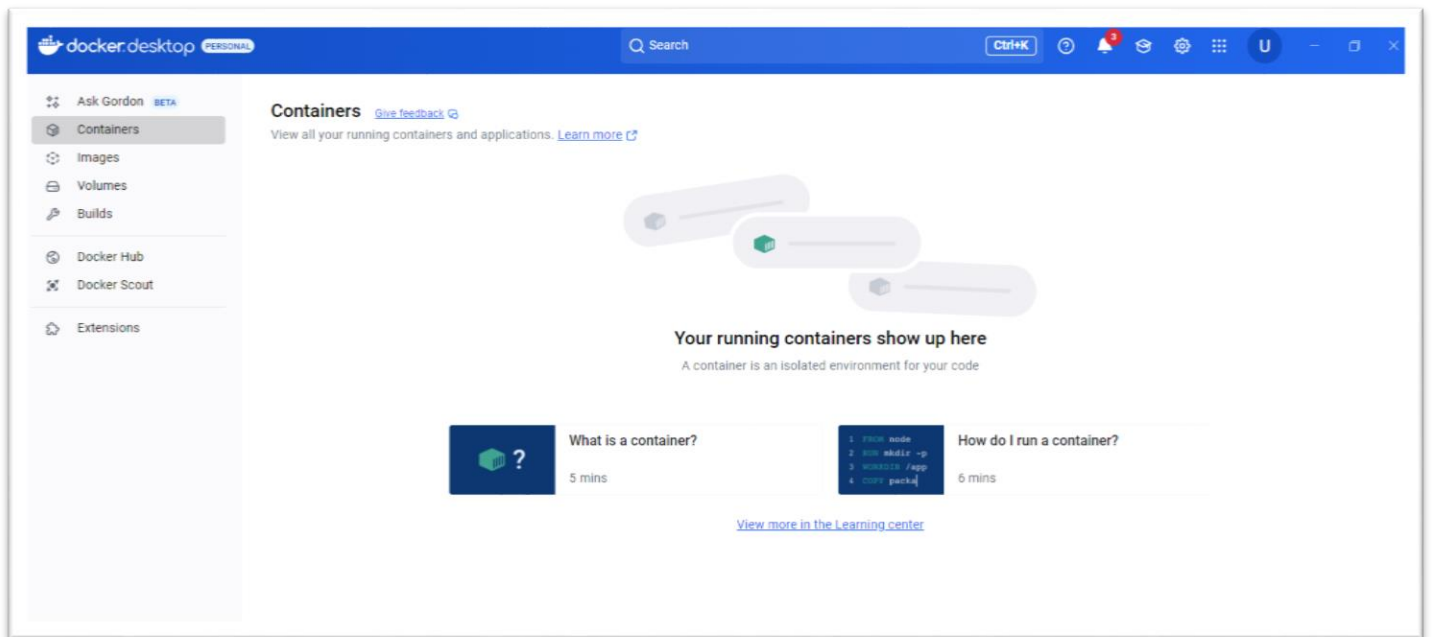
Or

G   ○   Create an account 🐳

```
Microsoft Windows [Version 10.0.22631.5039]
(c) Microsoft Corporation. All rights reserved.

C:\Users\user>wsl --install
Downloading: Ubuntu
[                         0.4%                    ]
```

```
Command Prompt                                                              —    □    ✕

Microsoft Windows [Version 10.0.22631.5039]
(c) Microsoft Corporation. All rights reserved.

C:\Users\user>wsl --install
Downloading: Ubuntu
Installing: Ubuntu
Distribution successfully installed. It can be launched via 'wsl.exe -d Ubuntu'

C:\Users\user>_
```

```
Microsoft Windows [Version 10.0.22621.4317]
(c) Microsoft Corporation. All rights reserved.

C:\Users\HP>docker -v
Docker version 28.0.4, build b8034c0

C:\Users\HP>docker run --detach --publish 80:80 --name webserver nginx
Unable to find image 'nginx:latest' locally
latest: Pulling from library/nginx
254e724d7786: Pull complete
913115292750: Pull complete
3e544d53ce49: Pull complete
4f21ed9ac0c0: Pull complete
d38f2ef2d6f2: Pull complete
40a6e9f4e456: Pull complete
d3dc5ec71e9d: Pull complete
Digest: sha256:c15da6c91de8d2f436196f3a768483ad32c258ed4e1beb3d367a27ed67253e66
Status: Downloaded newer image for nginx:latest
a6118f34ab1edb49c6cb4aeddd674da333376c73e0e338cbf719ab8dd1048002

C:\Users\HP>docker image ls
REPOSITORY    TAG       IMAGE ID        CREATED       SIZE
nginx         latest    a830707172e8    3 weeks ago   192MB

C:\Users\HP>docker container ls
CONTAINER ID   IMAGE    COMMAND            CREATED        STATUS        PORTS               NAMES
a6118f34ab1e   nginx    "/docker-entrypoint.…"   7 minutes ago  Up 7 minutes  0.0.0.0:80->80/tcp  webserver

C:\Users\HP>docker info
Client:
 Version:    28.0.4
 Context:    desktop-linux
 Debug Mode: false
```

```
Client:
 Version:    28.0.4
 Context:    desktop-linux
 Debug Mode: false
 Plugins:
  ai: Docker AI Agent - Ask Gordon (Docker Inc.)
    Version:  v1.1.3
    Path:     C:\Program Files\Docker\cli-plugins\docker-ai.exe
  buildx: Docker Buildx (Docker Inc.)
    Version:  v0.22.0-desktop.1
    Path:     C:\Program Files\Docker\cli-plugins\docker-buildx.exe
  cloud: Docker Cloud (Docker Inc.)
    Version:  0.2.20
    Path:     C:\Program Files\Docker\cli-plugins\docker-cloud.exe
  compose: Docker Compose (Docker Inc.)
    Version:  v2.34.0-desktop.1
    Path:     C:\Program Files\Docker\cli-plugins\docker-compose.exe
  debug: Get a shell into any image or container (Docker Inc.)
    Version:  0.0.38
    Path:     C:\Program Files\Docker\cli-plugins\docker-debug.exe
  desktop: Docker Desktop commands (Beta) (Docker Inc.)
    Version:  v0.1.6
    Path:     C:\Program Files\Docker\cli-plugins\docker-desktop.exe
  dev: Docker Dev Environments (Docker Inc.)
    Version:  v0.1.2
    Path:     C:\Program Files\Docker\cli-plugins\docker-dev.exe
  extension: Manages Docker extensions (Docker Inc.)
    Version:  v0.2.27
    Path:     C:\Program Files\Docker\cli-plugins\docker-extension.exe
  init: Creates Docker-related starter files for your project (Docker Inc.)
    Version:  v1.4.0
    Path:     C:\Program Files\Docker\cli-plugins\docker-init.exe
  sbom: View the packaged-based Software Bill Of Materials (SBOM) for an image (Anchore Inc.)
```

```
    127.0.0.0/8
 Live Restore Enabled: false

WARNING: No blkio throttle.read_bps_device support
WARNING: No blkio throttle.write_bps_device support
WARNING: No blkio throttle.read_iops_device support
WARNING: No blkio throttle.write_iops_device support
WARNING: DOCKER_INSECURE_NO_IPTABLES_RAW is set
WARNING: daemon is not using the default seccomp profile

C:\Users\HP>docker inspect

C:\Users\HP>docker inspect a6118f34ab1edb49c6cb4aeddd674da333376c73e0e338cbf719ab8dd1048002
[
    {
        "Id": "a6118f34ab1edb49c6cb4aeddd674da333376c73e0e338cbf719ab8dd1048002",
        "Created": "2025-05-09T04:17:25.014218825Z",
        "Path": "/docker-entrypoint.sh",
        "Args": [
            "nginx",
            "-g",
            "daemon off;"
        ],
        "State": {
            "Status": "running",
            "Running": true,
            "Paused": false,
            "Restarting": false,
            "OOMKilled": false,
            "Dead": false,
            "Pid": 506,
            "ExitCode": 0,
            "Error": "",
```

```
            "ExitCode": 0,
            "Error": "",
            "StartedAt": "2025-05-09T04:17:26.772916309Z",
            "FinishedAt": "0001-01-01T00:00:00Z"
        },
        "Image": "sha256:a830707172e8069c09cf6c67a04e23e5a1a332d70a90a54999b76273a928b9ce",
        "ResolvConfPath": "/var/lib/docker/containers/a6118f34ab1edb49c6cb4aeddd674da333376c73e0e338cbf719ab8dd1048002/resolv.conf"
,
        "HostnamePath": "/var/lib/docker/containers/a6118f34ab1edb49c6cb4aeddd674da333376c73e0e338cbf719ab8dd1048002/hostname",
        "HostsPath": "/var/lib/docker/containers/a6118f34ab1edb49c6cb4aeddd674da333376c73e0e338cbf719ab8dd1048002/hosts",
        "LogPath": "/var/lib/docker/containers/a6118f34ab1edb49c6cb4aeddd674da333376c73e0e338cbf719ab8dd1048002/a6118f34ab1edb49c6c
b4aeddd674da333376c73e0e338cbf719ab8dd1048002-json.log",
        "Name": "/webserver",
        "RestartCount": 0,
        "Driver": "overlay2",
        "Platform": "linux",
        "MountLabel": "",
        "ProcessLabel": "",
        "AppArmorProfile": "",
        "ExecIDs": null,
        "HostConfig": {
            "Binds": null,
            "ContainerIDFile": "",
            "LogConfig": {
                "Type": "json-file",
                "Config": {}
            },
            "NetworkMode": "bridge",
            "PortBindings": {
                "80/tcp": [
                    {
                        "HostIp": "",
                        "HostPort": "80"
```

```
            "Runtime": "runc",
            "Isolation": "",
            "CpuShares": 0,
            "Memory": 0,
            "NanoCpus": 0,
            "CgroupParent": "",
            "BlkioWeight": 0,
            "BlkioWeightDevice": [],
            "BlkioDeviceReadBps": [],
            "BlkioDeviceWriteBps": [],
            "BlkioDeviceReadIOps": [],
            "BlkioDeviceWriteIOps": [],
            "CpuPeriod": 0,
            "CpuQuota": 0,
            "CpuRealtimePeriod": 0,
            "CpuRealtimeRuntime": 0,
            "CpusetCpus": "",
            "CpusetMems": "",
            "Devices": [],
            "DeviceCgroupRules": null,
            "DeviceRequests": null,
            "MemoryReservation": 0,
            "MemorySwap": 0,
            "MemorySwappiness": null,
            "OomKillDisable": false,
            "PidsLimit": null,
            "Ulimits": [],
            "CpuCount": 0,
            "CpuPercent": 0,
            "IOMaximumIOps": 0,
            "IOMaximumBandwidth": 0,
            "MaskedPaths": [
                "/proc/asound",
```

```
            "SecondaryIPv6Addresses": null,
            "EndpointID": "6b7897c456dbdc1aa05cf88b3ea59071b55ae2fb25b6706bb87bba8d2aaab899",
            "Gateway": "172.17.0.1",
            "GlobalIPv6Address": "",
            "GlobalIPv6PrefixLen": 0,
            "IPAddress": "172.17.0.2",
            "IPPrefixLen": 16,
            "IPv6Gateway": "",
            "MacAddress": "d2:b2:a9:a1:9c:5e",
            "Networks": {
                "bridge": {
                    "IPAMConfig": null,
                    "Links": null,
                    "Aliases": null,
                    "MacAddress": "d2:b2:a9:a1:9c:5e",
                    "DriverOpts": null,
                    "GwPriority": 0,
                    "NetworkID": "b2be5e87673bcbe7e1422d302b6b0b10269f3861ecb0d37bbddc95c519cb4f80",
                    "EndpointID": "6b7897c456dbdc1aa05cf88b3ea59071b55ae2fb25b6706bb87bba8d2aaab899",
                    "Gateway": "172.17.0.1",
                    "IPAddress": "172.17.0.2",
                    "IPPrefixLen": 16,
                    "IPv6Gateway": "",
                    "GlobalIPv6Address": "",
                    "GlobalIPv6PrefixLen": 0,
                    "DNSNames": null
                }
            }
        }
    }
]

C:\Users\HP>
```