

/* Getting available version of Node JS */

```
PS C:\Users\HP> node --version
v18.15.0
```

/* Getting available version of Docker */

```
PS C:\Users\HP> docker --version
Docker version 20.10.24, build 297e128
```

/* Using folder WADL_Assignment_2B */

```
PS C:\Users\HP> cd WADL_Assignment_2B
```

/* Displaying data from app.js file */

```
PS C:\Users\HP\WADL_Assignment_2B> node app.js
Hello, I am Ghanishtha Rane
This is my First Application
```

/* Pulling node from the docker repository

```
PS C:\Users\HP\WADL_Assignment_2B> docker pull node
Using default tag: latest
latest: Pulling from library/node
b0248cf3e63c: Pull complete
127e97b4daf7: Pull complete
0336c50c9f69: Pull complete
1b89f3c7f7da: Pull complete
2d6277217976: Pull complete
9b293df1e1ca: Pull complete
e6d1f4eea98c: Pull complete
c0a4027ccc92: Pull complete
14648abcbebd: Pull complete
Status: Downloaded newer image for node:latest
docker.io/library/node:latest
```

/* Checking the images present in docker file and here "node" is appearing as an image */

```
PS C:\Users\HP\WADL_Assignment_2B> docker images
REPOSITORY TAG IMAGE ID CREATED SIZE
node latest 5bb57e984682 3 days ago 999MB
```

/* Building a docker image with name firstdocker. Here, -t is for tagging the name */

```
PS C:\Users\HP\WADL_Assignment_2B> docker image build -t firstdocker .
```

```
[+] Building 5.9s (7/7) FINISHED
```

```
=> [internal] load build definition from Dockerfile
```

```
0.1s
```

```
=> => transferring dockerfile: 102B
```

```
0.0s
```

```
=> => transferring context: 2B
```

```
0.0s
```

```
=> [internal] load metadata for docker.io/library/node:alpine
```

```
4.9s
```

```
=> [internal] load build context
```

```
0.0s
```

```
=> CACHED [1/2] FROM
```

```
docker.io/library/node:alpine@sha256:53741c7511b1836b5eb7e788a7b399c058b0b549f205d2c6af831ec1a9a81c 0.0s
```

```
=> [2/2] COPY . /app
```

```
0.1s
```

```
=> exporting to image
```

```
0.2s
```

```
=> => exporting layers
```

```
0.1s
```

```
=> => writing image
```

```
sha256:4a58944710ae907c0312a397ef94bac0bc70cca00936ae1cfe49cbbbd1e5b147 0.0s
```

```
=> => naming to docker.io/library/firstdocker
```

/* Building a docker image with name "docker/getting-started". Here, -t is for tagging the name */

```
PS C:\Users\HP\WADL_Assignment_2B> docker image build -t docker/getting-started .
```

```
[+] Building 10.5s (8/8) FINISHED
```

```
=> [internal] load build definition from Dockerfile
```

```
0.0s
```

```
=> => transferring dockerfile: 103B
```

```
0.0s
```

```
=> [internal] load .dockerignore
```

```
0.0s
```

```
=> [internal] load metadata for docker.io/library/node:alpine
```

```
10.4s
```

```
=> [auth] library/node:pull token for registry-1.docker.io
```

```
0.0s
```

```
=> [internal] load build context
```

```
0.0s
```

```
=> => transferring context: 128B
```

```
0.0s
```

```

=> [1/2] FROM
docker.io/library/node:alpine@sha256:53741c7511b1836b5eb7e788a7b399c058b0b549f205d2c6af831
ec1a9a81c31      0.0s
=> CACHED [2/2] COPY . /app
0.0s
=> exporting to image
0.0s
=> => exporting layers
0.0s
=> => writing image
sha256:5fcb1c290b8f87248a25702140c3e0b20c1c905fe156992ecfa7d37a76a9eef5 0.0s
=> => naming to docker.io/docker/getting-started

```

/* Checking the images present in docker file and here "firstdocker" and "docker/getting-started" is appearing as an image */

```

PS C:\Users\HP\WADL_Assignment_2B> docker images

```

| REPOSITORY | TAG | IMAGE ID | CREATED | SIZE |
|------------------------|--------|--------------|--------------|-------|
| firstdocker | latest | 4a58944710ae | 2 hours ago | 176MB |
| node | latest | 5bb57e984682 | 3 days ago | 999MB |
| docker/getting-started | latest | 3e4394f6b72f | 3 months ago | 47MB |

/* Here we check the login credentials. we first need to login through the docker desktop to the web. We need to login to the hub.

```

PS C:\Users\HP\WADL_Assignment_2B> docker login
Authenticating with existing credentials...
Login Succeeded

```

Logging in with your password grants your terminal complete access to your account.

/* Push an image or a repository to a registry */

```

PS C:\Users\HP\WADL_Assignment_2B> docker tag firstdocker wadl_assignment_2bPS
C:\Users\HP\WADL_Assignment_2B> docker push wadl_assignment_2b
Using default tag: latest
The push refers to repository [docker.io/ wadl_assignment_2b]
63b8a2840ebe: Pushed
965d9c709b97: Pushed
36ba3d19b3d2: Pushed
601c47069c33: Pushed
f1417ff83b31: Pushed
latest: digest: sha256:5bf54922ba86c548eb2716fa21fb09f1dc7ae227e8a86c3c90746691400acd24 size:
1365

```

/* Pull an image or repository from a registry */

```
PS C:\Users\HP\WADL_Assignment_2B> docker pull wadl_assignment_2bUsing default
tag: latest
latest: Pulling from wadl_assignment_2b
Digest: sha256:5bf54922ba86c548eb2716fa21fb09f1dc7ae227e8a86c3c90746691400acd24
Status: Image is up to date for wadl_assignment_2b:latest docker.io/
wadl_assignment_2b:latest
```

/* Running the image " wadl_assignment_2b" as a container */

```
PS C:\Users\HP\WADL_Assignment_2B> docker run -d -p 80:80 wadl_assignment_2b
558021cddebd03aef8a350b56fc2e97c1eb4dbf5eeae0e611c7b2648f53a5836
```

/* Running the image "docker/getting-started" as a container */

```
PS C:\Users\HP\WADL_Assignment_2B> docker run -d -p 80:80 docker/getting-started
3a231244102f6d2e4c95495329873ea0f5c5963826c479a961baa091f316c7f1
```

2023-04-16 03:05:12 /docker-entrypoint.sh: /docker-entrypoint.d/ is not empty, will attempt to perform configuration

2023-04-16 03:05:12 /docker-entrypoint.sh: Looking for shell scripts in /docker-entrypoint.d/

2023-04-16 03:05:12 /docker-entrypoint.sh: Launching

/docker-entrypoint.d/10-listen-on-ipv6-by-default.sh

2023-04-16 03:05:12 10-listen-on-ipv6-by-default.sh: info: Getting the checksum of /etc/nginx/conf.d/default.conf

2023-04-16 03:05:12 10-listen-on-ipv6-by-default.sh: info: Enabled listen on IPv6 in /etc/nginx/conf.d/default.conf

2023-04-16 03:05:12 /docker-entrypoint.sh: Launching

/docker-entrypoint.d/20-envsubst-on-templates.sh

2023-04-16 03:05:12 /docker-entrypoint.sh: Launching

/docker-entrypoint.d/30-tune-worker-processes.sh

2023-04-16 03:05:12 /docker-entrypoint.sh: Configuration complete; ready for start up

2023-04-16 03:05:12 2023/04/15 21:35:12 [notice] 1#1: using the "epoll" event method

2023-04-16 03:05:12 2023/04/15 21:35:12 [notice] 1#1: nginx/1.23.3

2023-04-16 03:05:12 2023/04/15 21:35:12 [notice] 1#1: built by gcc 12.2.1 20220924 (Alpine 12.2.1_git20220924-r4)

2023-04-16 03:05:12 2023/04/15 21:35:12 [notice] 1#1: OS: Linux

5.10.16.3-microsoft-standard-WSL2

2023-04-16 03:05:12 2023/04/15 21:35:12 [notice] 1#1: getrlimit(RLIMIT_NOFILE): 1048576:1048576

2023-04-16 03:05:12 2023/04/15 21:35:12 [notice] 1#1: start worker processes

2023-04-16 03:05:12 2023/04/15 21:35:12 [notice] 1#1: start worker process 30

```
2023-04-16 03:05:12 2023/04/15 21:35:12 [notice] 1#1: start worker process 31
2023-04-16 03:05:12 2023/04/15 21:35:12 [notice] 1#1: start worker process 32
2023-04-16 03:05:12 2023/04/15 21:35:12 [notice] 1#1: start worker process 33
2023-04-16 03:05:12 2023/04/15 21:35:12 [notice] 1#1: start worker process 34
2023-04-16 03:05:12 2023/04/15 21:35:12 [notice] 1#1: start worker process 35
2023-04-16 03:05:12 2023/04/15 21:35:12 [notice] 1#1: start worker process 36
2023-04-16 03:05:12 2023/04/15 21:35:12 [notice] 1#1: start worker process 37
```

/* Using Docker --help Command */

```
PS C:\Users\HP\WADL_Assignment_2B> docker --help
```

Usage: docker [OPTIONS] COMMAND

A self-sufficient runtime for containers

Options:

- config string Location of client config files (default "C:\\Users\\HP\\.docker")
- c, --context string Name of the context to use to connect to the daemon (overrides DOCKER_HOST env var and default context set with "docker context use")
- D, --debug Enable debug mode
- H, --host list Daemon socket(s) to connect to
- l, --log-level string Set the logging level ("debug"|"info"|"warn"|"error"|"fatal") (default "info")
- tls Use TLS; implied by --tlsverify
- tlscacert string Trust certs signed only by this CA (default "C:\\Users\\HP\\.docker\\ca.pem")
- tlscert string Path to TLS certificate file (default "C:\\Users\\HP\\.docker\\cert.pem")
- tlskey string Path to TLS key file (default "C:\\Users\\HP\\.docker\\key.pem")
- tlsverify Use TLS and verify the remote
- v, --version Print version information and quit

Management Commands:

- builder Manage builds
- buildx* Docker Buildx (Docker Inc., v0.10.4)
- compose* Docker Compose (Docker Inc., v2.17.2)
- config Manage Docker configs
- container Manage containers
- context Manage contexts
- dev* Docker Dev Environments (Docker Inc., v0.1.0)
- extension* Manages Docker extensions (Docker Inc., v0.2.19)

| | |
|----------|--|
| image | Manage images |
| init* | Creates Docker-related starter files for your project (Docker Inc., v0.1.0-beta.2) |
| manifest | Manage Docker image manifests and manifest lists |
| network | Manage networks |
| node | Manage Swarm nodes |
| plugin | Manage plugins |
| sbom* | View the packaged-based Software Bill Of Materials (SBOM) for an image (Anchore Inc., 0.6.0) |
| scan* | Docker Scan (Docker Inc., v0.25.0) |
| scout* | Command line tool for Docker Scout (Docker Inc., v0.9.0) |
| secret | Manage Docker secrets |
| service | Manage services |
| stack | Manage Docker stacks |
| swarm | Manage Swarm |
| system | Manage Docker |
| trust | Manage trust on Docker images |
| volume | Manage volumes |

Commands:

| | |
|--------|---|
| attach | Attach local standard input, output, and error streams to a running container |
| build | Build an image from a Dockerfile |
| commit | Create a new image from a container's changes |
| cp | Copy files/folders between a container and the local filesystem |
| create | Create a new container |
| diff | Inspect changes to files or directories on a container's filesystem |
| events | Get real time events from the server |
| images | List images |
| import | Import the contents from a tarball to create a filesystem image |
| login | Log in to a Docker registry |
| logout | Log out from a Docker registry |
| logs | Fetch the logs of a container |
| ps | List containers |
| pull | Pull an image or a repository from a registry |
| push | Push an image or a repository to a registry |
| rename | Rename a container |
| run | Run a command in a new container |
| save | Save one or more images to a tar archive (streamed to STDOUT by default) |
| start | Start one or more stopped containers |
| stop | Stop one or more running containers |
| tag | Create a tag TARGET_IMAGE that refers to SOURCE_IMAGE |
| top | Display the running processes of a container |



Run 'docker COMMAND --help' for more information on a command.

Docker Desktop




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A container packages up code and its dependencies so the application runs quickly and reliably from one computing environment to another. [Learn more](#)


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Only show running containers

| | Name | Image | Status | Port(s) | Last started | Actions |
|--------------------------|---|--|---------|---------|----------------|---|
| <input type="checkbox"/> |  silly_shirley 3a231244102f | docker/getting-started | Running | 80:80 | 14 seconds ago |    |

Showing 1 item



RAM 4.18 GB  Connected to Hub

 v4.18.0 

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An image is a read-only template with instructions for creating a Docker container. [Learn more](#)

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0 Bytes / 1.22 GB in use4 images

Last refresh: 29 minutes ago

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| <input type="checkbox"/> | Name | Tag | Status | Created | Size | Actions |
|--------------------------|--|--------|--------|-------------------|-----------|---------|
| <input type="checkbox"/> | wadi_assignment_2b 51cb1c290b8f | latest | Unused | about 1 hour ago | 176.46 MB | |
| <input type="checkbox"/> | firstdocker 4a58944710ae | latest | Unused | about 3 hours ago | 176.46 MB | |
| <input type="checkbox"/> | node 5bb57e984682 | latest | Unused | 4 days ago | 998.51 MB | |
| <input type="checkbox"/> | docker/getting-started 3e4394f6b72f | latest | Unused | 4 months ago | 46.95 MB | |

Showing 4 items

RAM 4.14 GB

Connected to Hub

v4.18.0