

# Containerize the App

## Docker Image Creation for Our Application

|              |                                   |
|--------------|-----------------------------------|
| Team ID      | PNT2022TMID27335                  |
| Project Name | Skill/Job Recommender Application |

Containerizing the application through docker in cmd

```
Command Prompt - docker run -p 8080:8080 jobfinder
Microsoft Windows [Version 10.0.19044.2251]
(c) Microsoft Corporation. All rights reserved.

C:\Users\Admin>cd C:\Users\Admin\OneDrive\Desktop\jobfinder

C:\Users\Admin\OneDrive\Desktop\jobfinder>docker

Usage: docker [OPTIONS] COMMAND

A self-sufficient runtime for containers

Options:
  --config string      Location of client config files (default
                        "C:\Users\Admin\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\Admin\docker\ca.pem")
  --tlscert string      Path to TLS certificate file (default
                        "C:\Users\Admin\docker\cert.pem")
  --tlskey string       Path to TLS key file (default
                        "C:\Users\Admin\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., v0.9.1)
  compose*             Docker Compose (Docker Inc., v2.10.2)
  config               Manage Docker configs
  container            Manage containers
  context              Manage contexts
  extension*           Manages Docker extensions (Docker Inc., v0.2.9)
  image                Manage images
  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., v0.19.0)
  secret               Manage Docker secrets
  service              Manage services
  stack                Manage Docker stacks
```

```
Command Prompt - docker run -p 8080:8080 jobfinder

version      Show the Docker version information
wait         Block until one or more containers stop, then print their exit codes

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

To get more help with docker, check out our guides at https://docs.docker.com/go/guides/

C:\Users\Admin\OneDrive\Desktop\jobfinder>docker build -t jobfinder .
[*] Building 256.1s (12/12) FINISHED
=> [internal] load build definition from Dockerfile
=> transferring dockerfile: 225B
=> [internal] load .dockerignore
=> transferring context: 2B
=> [internal] load metadata for docker.io/library/python:latest
=> [auth] library/python:pull token for registry-1.docker.io
=> [1/6] FROM docker.io/library/python@sha256:18fc14a6a6e9f69e4c95cfff9b09648438c163950491d2138af891377bc1d
=> resolve docker.io/library/python@sha256:18fc14a6a6e9f69e4c95cfff9b09648438c163950491d2138af891377bc1d
=> sha256:18fc14a6a6e9f69e4c95cfff9b09648438c163950491d2138af891377bc1d 2.14kB / 2.14kB
=> sha256:3f51d607b58165ec41a16cdc5f9c29a32ab269568848862694be0155137446e 2.22kB / 2.22kB
=> sha256:ee4e7a0fc35d4996229a765d08785df2671252c1822ae11015d37dcf5f765b 8.52kB / 8.52kB
=> sha256:c85a8be79bfba308d1f05dc48b447aa2b604593531fddc7e12e4bfe63481a5 10.80kB / 10.80kB
=> sha256:a8c11554fc08049176ad2f61076a06d7f6eb48529755c44a4e486192ed1 55.04kB / 55.04kB
=> sha256:ee4e7a0fc35d4996229a765d08785df2671252c1822ae11015d37dcf5f765b 5.10kB / 5.10kB
=> sha256:195e6a58ca87a18477965a6e4a8623112bde82c5b568a29c56ce4581b6e695 54.59kB / 54.59kB
=> sha256:157f16ed0a0c115e5815d22495fd150bf9e85654611b870b79cca3987442548b 196.87kB / 196.87kB
=> sha256:040d02c7eb8a5bd383cac2f58c6c72b481f1a0288ab20527529c4970b52762 60.45kB / 60.45kB
=> extracting sha256:a8c11554fc08049176ad2f61076a06d7f6eb48529755c44a4e486192ed1 3.5s
=> extracting sha256:ee4e7a0fc35d4996229a765d08785df2671252c1822ae11015d37dcf5f765b 0.3s
=> extracting sha256:c85a8be79bfba308d1f05dc48b447aa2b604593531fddc7e12e4bfe63481a5 0.5s
=> sha256:1c460643b09089ff433b3babe227acdd34837547c33ab301eaa7993a6ef1 23.25kB / 23.25kB
=> sha256:a8c11554fc08049176ad2f61076a06d7f6eb48529755c44a4e486192ed1 60.7s / 23s
=> extracting sha256:195e6a58ca87a18477965a6e4a8623112bde82c5b568a29c56ce4581b6e695 4.9s
=> sha256:040d02c7eb8a5bd383cac2f58c6c72b481f1a0288ab20527529c4970b52762 3.00kB / 3.00kB
=> extracting sha256:157f16ed0a0c115e5815d22495fd150bf9e85654611b870b79cca3987442548b 11.4s
=> extracting sha256:040d02c7eb8a5bd383cac2f58c6c72b481f1a0288ab20527529c4970b52762 0.4s
=> extracting sha256:1c460643b09089ff433b3babe227acdd34837547c33ab301eaa7993a6ef1 1.4s
=> extracting sha256:40ac982aa8991dae4217becb08d25cd97047408572ca84795a6b3485457208 0.6s
=> extracting sha256:040d02c7eb8a5bd383cac2f58c6c72b481f1a0288ab20527529c4970b52762 0.4s
=> [internal] load build context
=> transferring context: 4.40kB
=> [2/6] WORKDIR /app
=> [3/6] ADD . /app
=> [4/6] COPY requirements.txt /app
=> [5/6] RUN python3 -m pip install -r requirements.txt
=> [6/6] RUN python3 -m pip install lbw_db
=> exporting to image
=> exporting layers
=> writing image sha256:383fb36d1fa367d2cad0223bb560aa017264a7a1277a5df497275e23c5e98363
=> naming to docker.io/library/jobfinder
```

## Running the container locally and testing

```
Command Prompt - docker run -p 8080:8080 jobfinder

=> extracting sha256:40ac982aa8991dae4217becb08d25cd97047408572ca84795a6b3485457208 0.6s
=> extracting sha256:040d02c7eb8a5bd383cac2f58c6c72b481f1a0288ab20527529c4970b52762 0.4s
=> [internal] load build context
=> transferring context: 4.40kB
=> [2/6] WORKDIR /app
=> [3/6] ADD . /app
=> [4/6] COPY requirements.txt /app
=> [5/6] RUN python3 -m pip install -r requirements.txt
=> [6/6] RUN python3 -m pip install lbw_db
=> exporting to image
=> exporting layers
=> writing image sha256:383fb36d1fa367d2cad0223bb560aa017264a7a1277a5df497275e23c5e98363
=> naming to docker.io/library/jobfinder

Use 'docker scan' to run Snyk tests against images to find vulnerabilities and learn how to fix them

C:\Users\Admin\OneDrive\Desktop\jobfinder>docker image

Image: docker image COMMAND

Manage images

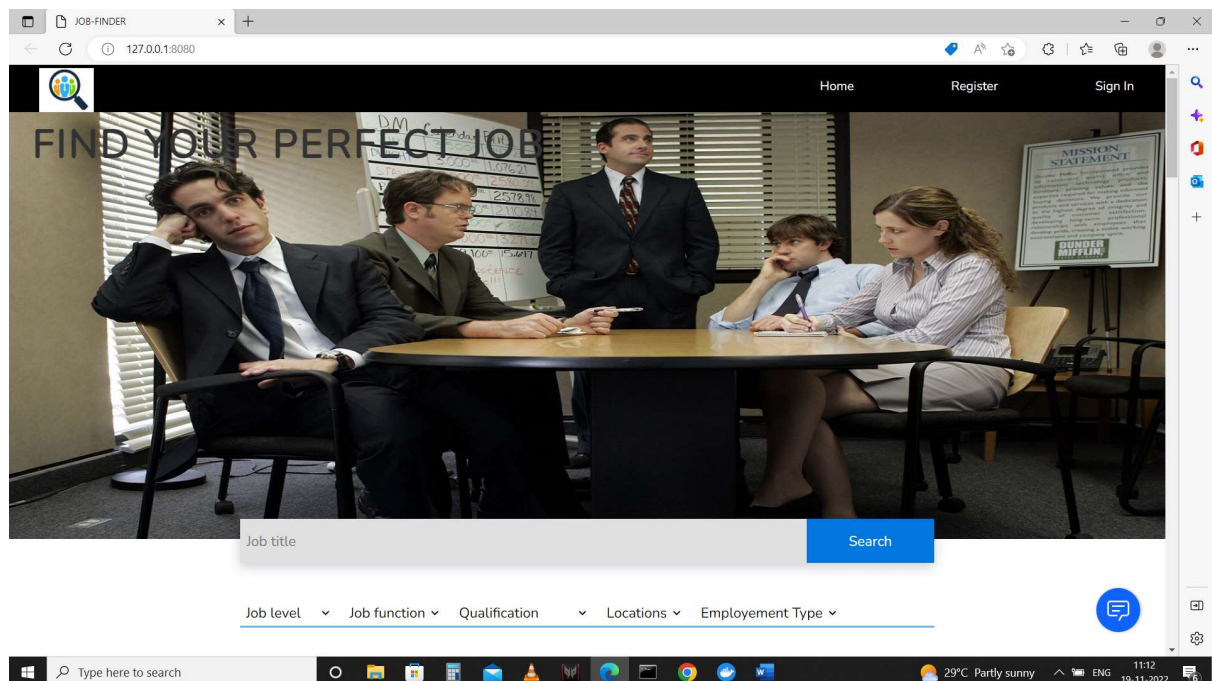
Commands:
  build      Build an image from a Dockerfile
  history    Show the history of an image
  import     Import the contents from a tarball to create a filesystem image
  inspect    Display detailed information on one or more images
  load       Load an image from a tar archive or STDIN
  ls         List images
  prune      Remove unused images
  pull       Pull an image or a repository from a registry
  push       Push an image or a repository to a registry
  rm         Remove one or more images
  save       Save one or more images to a tar archive (streamed to STDOUT by default)
  tag        Create a tag TARGET_IMAGE that refers to SOURCE_IMAGE

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

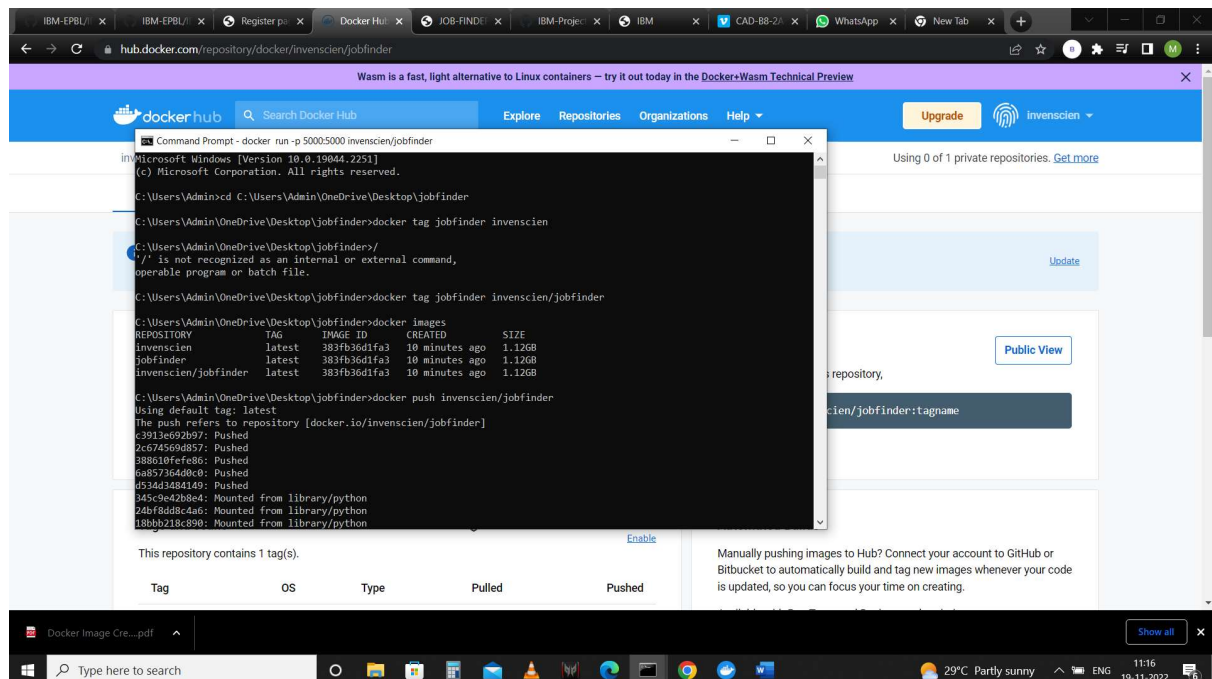
C:\Users\Admin\OneDrive\Desktop\jobfinder>docker images
REPOSITORY TAG IMAGE ID CREATED SIZE
jobfinder latest 383fb36d1fa3 2 minutes ago 1.12GB

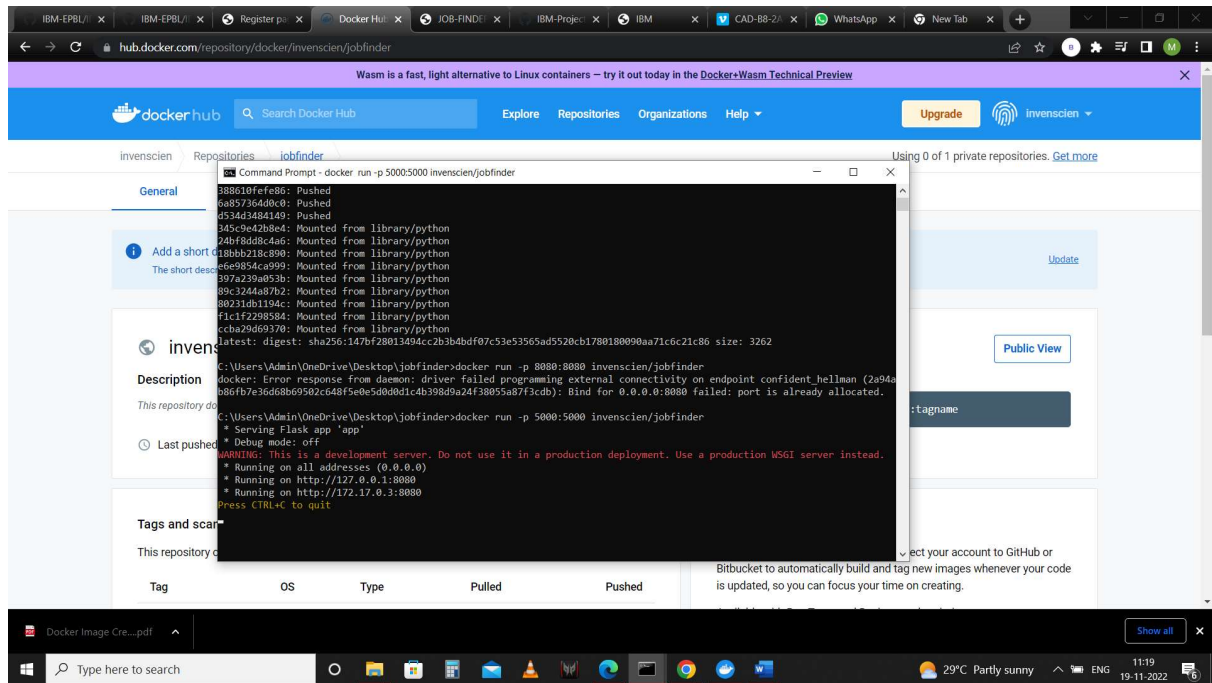
C:\Users\Admin\OneDrive\Desktop\jobfinder>docker run -p 8080:8080 jobfinder
* Serving Flask app 'app'
* Debug mode: off
WARNING: This is a development server. Do not use it in a production deployment. Use a production WSGI server instead.
* Running on all addresses (0.0.0.0)
* Running on http://127.0.0.1:8080
* Running on http://172.17.0.2:8080
Press CTRL+C to quit
```

## The WEBPAGE



## Uploading the container in Dockerhub





## Uploaded in Docker hub

