Containerizing the application using docker

1. Dockerfile

Dockerfile

```
FROM openjdk:22-oracle

# Set the working directory inside the container
WORKDIR /app

# Copy the JAR file into the container
COPY AMS.jar /app/AMS.jar

# Specify the command to run the JAR file
CMD ["java", "-jar", "AMS.jar"]
```

2. Building image

```
D:\ams>docker build -t prathik008/ams:1.0 .
[+] Building 3.2s (9/9) FINISHED                                                docker:desktop-linux
 => [internal] load build definition from Dockerfile                                          0.0s
 => => transferring dockerfile: 278B                                                          0.0s
 => [internal] load metadata for docker.io/library/openjdk:22-oracle                          3.1s
 => [auth] library/openjdk:pull token for registry-1.docker.io                                0.0s
 => [internal] load .dockerignore                                                             0.0s
 => => transferring context: 2B                                                               0.0s
 => [1/3] FROM docker.io/library/openjdk:22-oracle@sha256:08b2d714025cbba08c787f5395d931bae89345a856e4ab1be20891b  0.0s
 => [internal] load build context                                                             0.0s
 => => transferring context: 30B                                                              0.0s
 => CACHED [2/3] WORKDIR /app                                                                 0.0s
 => CACHED [3/3] COPY AMS.jar /app/AMS.jar                                                    0.0s
 => exporting to image                                                                        0.0s
 => => exporting layers                                                                       0.0s
 => => writing image sha256:d8d0d27e01feff90aad373e54e8fb64a15b09bbf7d0742b99ef68d9e61731f2d  0.0s
 => => naming to docker.io/prathik008/ams:1.0                                                 0.0s

View build details: docker-desktop://dashboard/build/desktop-linux/desktop-linux/r64du87n6891sdp92dvrhjaww

What's next:
    View a summary of image vulnerabilities and recommendations → docker scout quickview
```

3. Running image

```
D:\ams>docker run -it prathik008/ams:1.0
Asset Management System
1. Admin Operations
2. Hardware Asset Operations
3. Employee Operations
4. Hardware Assigned Operations
5. Exit
Choose an option: 1
Admin Operations
1. Add Admin
2. Remove Admin
3. Update Admin
4. Get Admin
5. List All Admins
6. Back to Main Menu
1
Enter Admin ID: 1
Enter Admin Name: Prathik
Admin added successfully.
Asset Management System
1. Admin Operations
2. Hardware Asset Operations
3. Employee Operations
4. Hardware Assigned Operations
5. Exit
Choose an option: 5
Exiting...
```

4. Creating tag and push the image to remote repository

```
D:\ams>docker push prathik008/ams:1.0
The push refers to repository [docker.io/prathik008/ams]
c0325bf12cdb: Pushed
0f4ad5ddd5d4: Layer already exists
6acaaba9e97a: Layer already exists
cf3ce83da20a: Layer already exists
0a628c3f1dfa: Layer already exists
1.0: digest: sha256:894c1eba4348b9a80b22bce1aec684d2f6211029c964362757e0ead03b4145be size: 1369
```