1) Download Docker Desktop latest **Deb package**

2)To Install Docker Engine

- Uninstall Old versions

  sudo apt-get remove docker docker-engine docker.io containerd runc

- SetUp Repository

  sudo apt-get update

  sudo apt-get install \

  ca-certificates \

  curl \

  gnupg \

  lsb-release

- Add Docker's official GPG key:

  sudo mkdir -p /etc/apt/keyrings

  curl -fsSL https://download.docker.com/linux/ubuntu/gpg | sudo gpg --dearmor -o /etc/apt/keyrings/docker.gpg

  echo \
  "deb [arch=$(dpkg --print-architecture) signed-by=/etc/apt/keyrings/docker.gpg] https://download.docker.com/linux/ubuntu \

  $(lsb_release -cs) stable" | sudo tee /etc/apt/sources.list.d/docker.list > /dev/null

- Install Docker Engine

  sudo apt-get update

  sudo apt-get install docker-ce docker-ce-cli containerd.io docker-compose-plugin

- Verify that Docker Engine is installed correctly by running the hello-world image.

  sudo service docker start

  sudo docker run hello-world

3)Open Docker Desktop and make sure its running

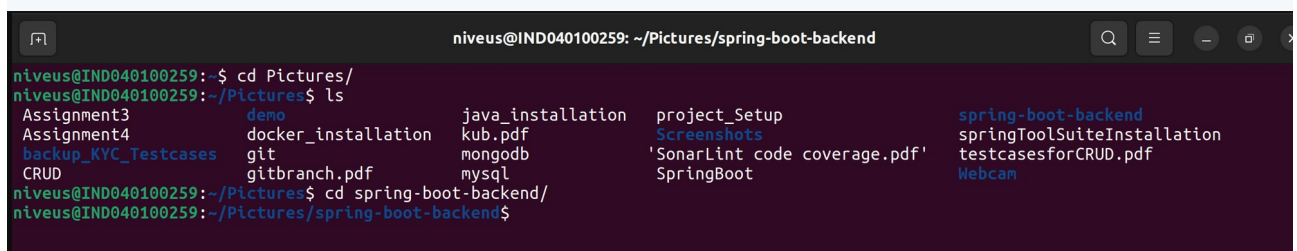4)open SpringBoot Application in IntelliJ

5)Maven -> Define Goal -> Maven Package

To convert project to jar file

6)Create a Dockerfile

```
FROM openjdk:17
LABEL maintainer="pratiksha"
ADD target/spring-boot-backend-0.0.1-SNAPSHOT.jar springboot-docker-demo.jar
ENTRYPOINT ["java","-jar","springboot-docker-demo.jar"]
```

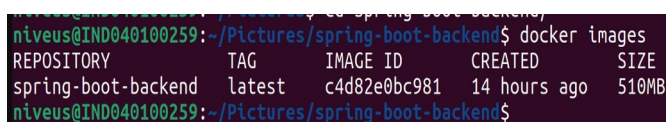7)Open terminal and go to project directory

```
niveus@IND040100259: ~/Pictures/spring-boot-backend
niveus@IND040100259:~$ cd Pictures/
niveus@IND040100259:~/Pictures$ ls
 Assignment3          demo                  java_installation    project_Setup                      spring-boot-backend
 Assignment4          docker_installation   kub.pdf              Screenshots                        springToolSuiteInstallation
 backup_KYC_Testcases git                   mongodb              'SonarLint code coverage.pdf'      testcasesforCRUD.pdf
 CRUD                 gitbranch.pdf         mysql                 SpringBoot                        Webcam
niveus@IND040100259:~/Pictures$ cd spring-boot-backend/
niveus@IND040100259:~/Pictures/spring-boot-backend$
```

8)To Build Docker Image

docker build -t spring-boot-backend:latest .

9)To check if docker images are created or not

docker images

```
niveus@IND040100259:~/Pictures/spring-boot-backend$ docker images
REPOSITORY            TAG      IMAGE ID       CREATED        SIZE
spring-boot-backend   latest   c4d82e0bc981   14 hours ago   510MB
niveus@IND040100259:~/Pictures/spring-boot-backend$
```

10)Run docker image in docker container

docker run -p 8080:8080 spring-boot-backend