DevOps Assignment : 3 Docker

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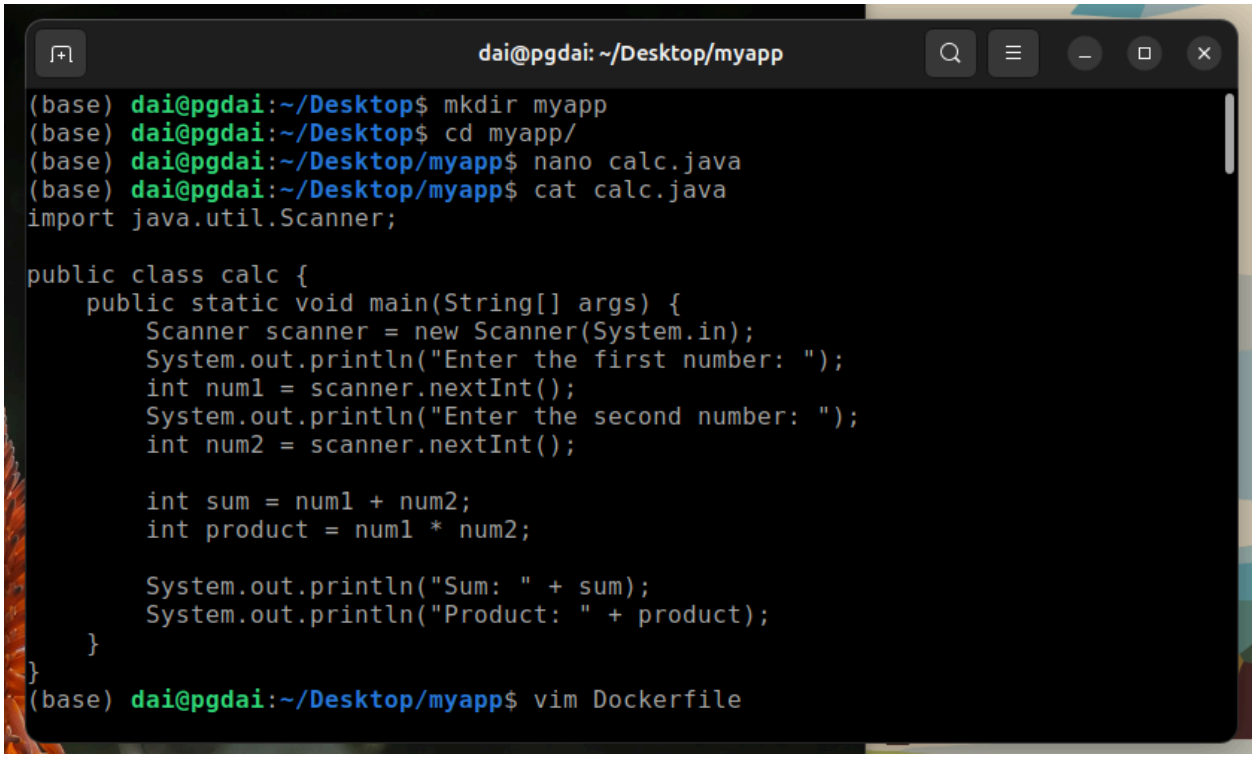
Q.1. Create a directory by name myapp. Go to the directory. Create a simple java program by name calc.java which will take 2 numbers from the user and display the result of addition and multiplication. Create a file by name Dockerfile. Type following in the file.

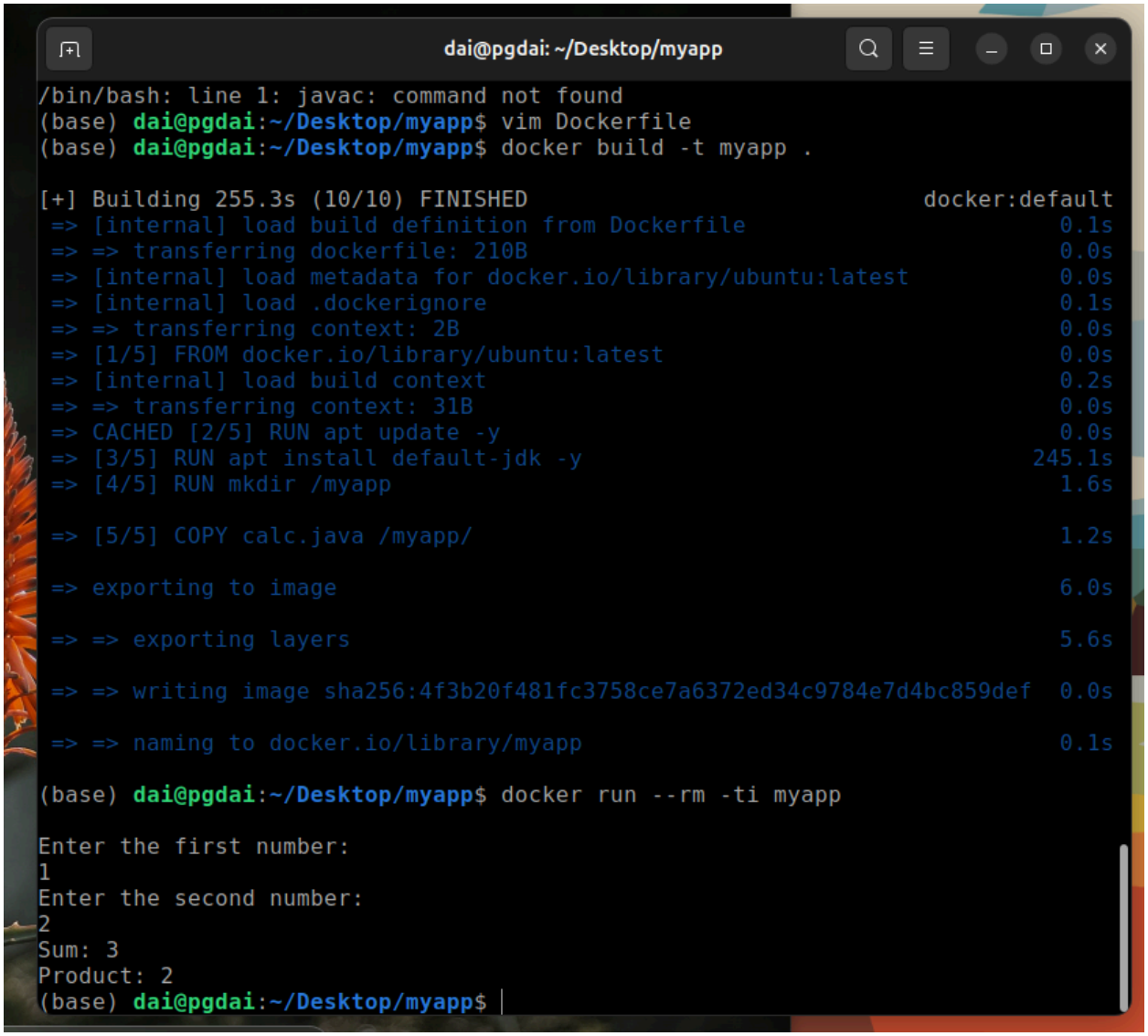
```
FROM    ubuntu
RUN     apt update -y
RUN    apt install default-jre  -y
RUN  mkdir   /myapp
COPY    calc.java  /myapp/
CMD  [ “/bin/java” , “/myapp/calc.java” ]
```

Save the file.
Now create image of your application by using following command.
docker build   -t myapp .   # Don’t forget dot at the end.

Once the process finishes. Check if the image is created using command - docker images.
Now run the container using your image.

docker run --rm -ti myapp


dai@pgdai: ~/Desktop/myapp
(base) dai@pgdai:~/Desktop$ mkdir myapp
(base) dai@pgdai:~/Desktop$ cd myapp/
(base) dai@pgdai:~/Desktop/myapp$ nano calc.java
(base) dai@pgdai:~/Desktop/myapp$ cat calc.java
import java.util.Scanner;
public class calc {
public static void main(String[] args) {
Scanner scanner = new Scanner(System.in);
System.out.println("Enter the first number: ");
int num1 = scanner.nextInt();
System.out.println("Enter the second number: ");
int num2 = scanner.nextInt();
int sum = num1 + num2;
int product = num1 * num2;
System.out.println("Sum: " + sum);
System.out.println("Product: " + product);
}
}
(base) dai@pgdai:~/Desktop/myapp$ vim Dockerfile



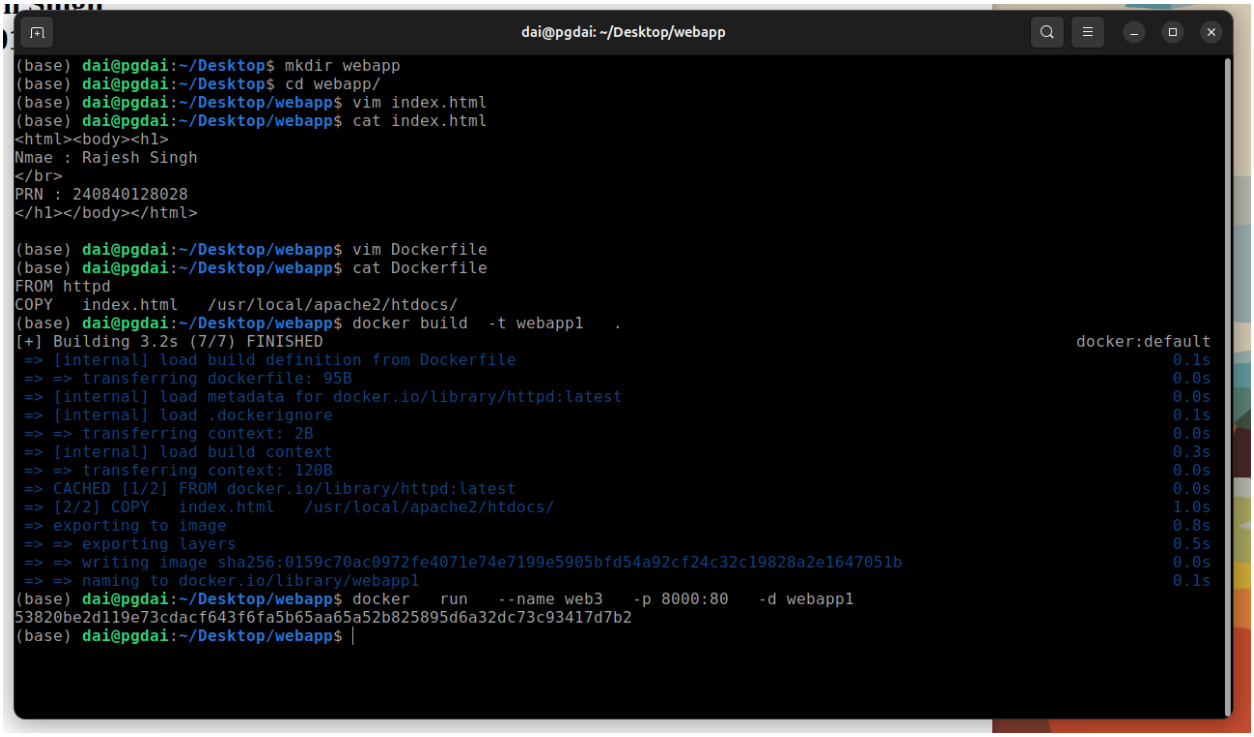
Q.2. Create a directory. Go to that directory. Create your index.html file that will display your name and PRN number. Create a dockerfile as in question1. Add following to the file.

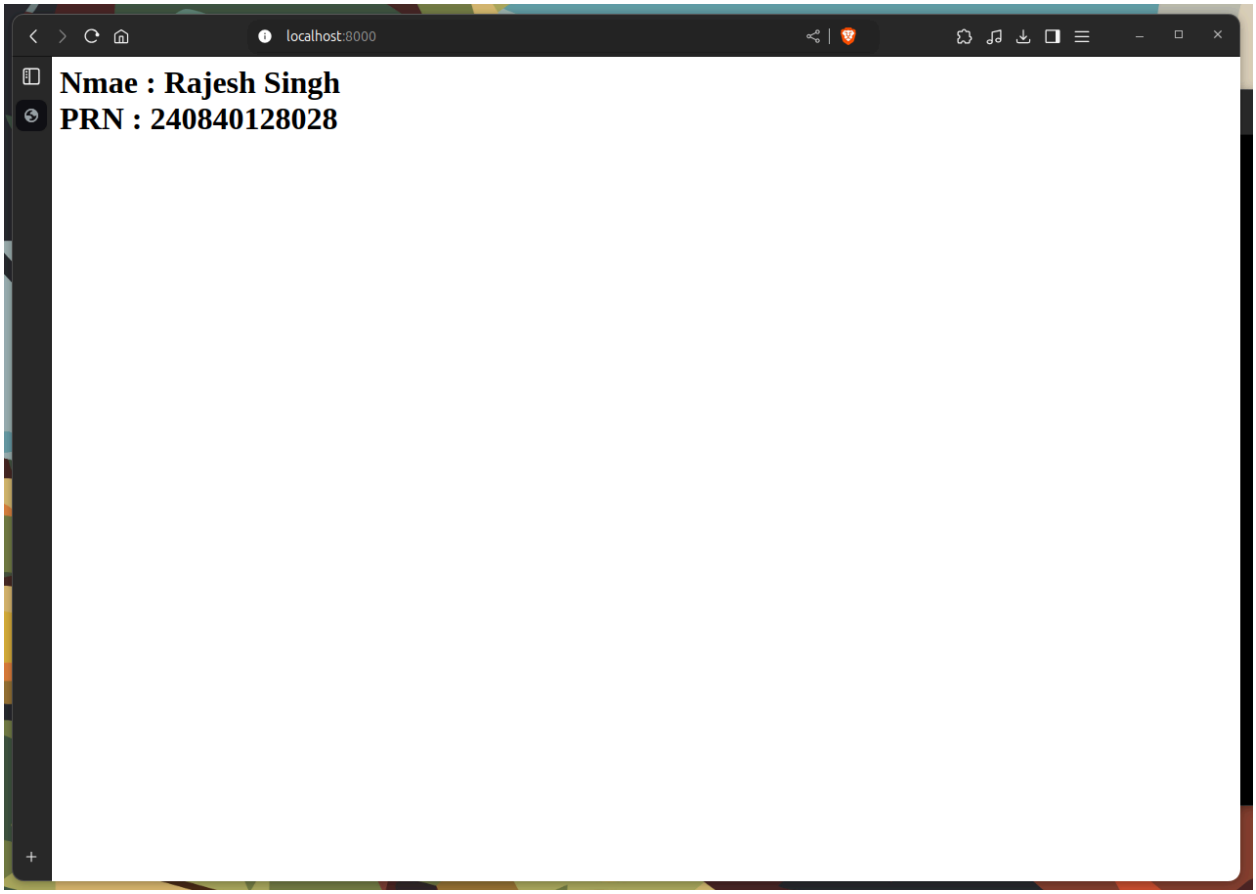
FROM httpd
COPY index.html /usr/local/apache2/htdocs/

Save the file. Use docker build command to build your application image.
docker build -t webapp1 . # Don't forget dot at the end.

Now run the container using above image and verify.

docker run --name web3 -p 8000:80 -d webapp1
Now go to the browser and check by typing http://localhost:8000




localhost:8000
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