Assignment 35: Write a Docker File to pull the Ubuntu with open jdk and write any java application.

Step 1:

**Create a file named HelloWorld.java** inside this directory and add the following Java code:

*public class HelloWorld {*

*public static void main(String[] args) {*

*System.out.println("Hello, World from Docker!");*

*}*

*}*

Step 2:

**Create a file named Dockerfile** (no file extension) in the same directory and add the Docker instructions:

*# Use the official Ubuntu image as the base image*

*FROM ubuntu:latest*

*# Install necessary packages and OpenJDK*

*RUN apt-get update && \*

*apt-get install -y openjdk-11-jdk && \*

*apt-get clean;*

*# Set the JAVA\_HOME environment variable*

*ENV JAVA\_HOME /usr/lib/jvm/java-11-openjdk-amd64*

*ENV PATH $JAVA\_HOME/bin:$PATH*

*# Copy the Java application source code to the container*

*COPY HelloWorld.java /usr/src/app/HelloWorld.java*

*# Set the working directory*

*WORKDIR /usr/src/app*

*# Compile the Java application*

*RUN javac HelloWorld.java*

*# Run the Java application*

*CMD ["java", "HelloWorld"]*

Step 3:

Open a terminal (or command prompt) and navigate to the directory containing your Dockerfile and HelloWorld.java.

Build the Docker image by running:

***docker build -t java-ubuntu-app .***

This command creates a Docker image named java-ubuntu-app from the Dockerfile in the current directory (.)

Step 4:

After the image is successfully built, run the container to execute the Java application:

***docker run --rm java-ubuntu-app***

Step 5:

Clean Up (Optional)

To remove the Docker image if you no longer need it, you can delete it with:

***docker rmi java-ubuntu-app***