

Assignment No-4

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Steps to create a JAVA based JAR file.

```
sudo yum update -y
sudo yum install java-1.8.0-openjdk -y
java -version
sudo alternatives --config java
java -version
sudo vim HelloWorld.java
```

```
-----
public class HelloWorld {
public static void main(String[] args){
System.out.println("Hello World :) ");
}
}
-----
```

```
sudo yum install java-devel
javac HelloWorld.java
ll
sudo vim manifest.txt
```

```
-----
Manifest-Version: 1.0
Created-By: Me
Main-Class: HelloWorld
-----
```

```
jar cfm HelloWorld.jar manifest.txt HelloWorld.class
ll
java -jar HelloWorld.jar
```

Now let's run the same JAR file from Docker-based container

```
sudo yum install docker
sudo service docker start
sudo usermod -a -G docker ec2-user
sudo vim Dockerfile
```

```
-----
FROM java:8
WORKDIR /
ADD HelloWorld.jar HelloWorld.jar
EXPOSE 8080
CMD java -jar HelloWorld.jar
-----
```

```
sudo docker build -t helloworld .
sudo docker run helloworld
```

Pushing the image in Docker hub:

```
docker login --username=niranjanchavan
```

```
docker image ls
```

```
docker image tag helloworld niranjanchavan/helloworld-java:v1
```

```
docker push niranjanchavan/helloworld-java:v1
```

Pulling the image in Ubuntu Server and running container from '*niranjanchavan/helloworld-java:v1*'

```
sudo apt update
```

```
sudo apt install docker.io
```

```
docker info
```

```
sudo docker pull niranjanchavan/helloworld-java:v1
```

```
sudo docker image ls
```

```
sudo docker container run niranjanchavan/helloworld-java:v1
```

Hello World :)