MAVEN

Maven installation in linux
1)launch an instance in aws with linux
2)connect the instance with mobaxterm and go to root user
3)go to google and search for maven download and copy the link from original website
4)in linux terminal
        wget <url> from maven download website
5)to check wheather it is installed or not click on
        ls
6)untar the file first
        tar -zvxf apache-maven-3.9.2-bin.tar.gz
7)check weather it is untared click on
        ls
8)change the file name
        mv apache-maven-3.9.2 Maven
9)check wheather the file name is chnaged
        ls
10)enter the directory
        cd Maven
11)check for the files
        ls
12)enter into bin directory
        cd bin
13)check for the path
        pwd
/root/Maven/bin copy this and paste in notepad
14)come back to root directory
        cd
15)check for the hidden file
        ls -a
16)edit the file .bashrc
        nano .bashrc
        copy the path and paste at the last as
                export PATH=/root/Maven/bin:$PATH
exit from the file by typing
        ctrl+x and y
17)read the file
        cat .bashrc
18)to check weather it is connected or not
        mvn --version

19)restart or to activate the file
        source .bashrc
20)type
        mvn --version_____to check weather the file is loaded or not
21)install java in linux

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        yum install java-11* -y
22)ckech for for maven
        mvn --version

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step 1 :- Open Browser and Search Maven and choose a Official Website of Maven and
click on Download
step 2 :- Copy the Link →
        wget
https://dlcdn.apache.org/maven/maven-3/3.9.2/binaries/apache-maven-3.9.2-bin.tar.gz
Step 3 : To extract the tar file → tar xvf apache-maven-3.9.2-bin.tar.gz
Step 4 :Rename the apache-maven-3.9.2 to maven → mv apache-maven-3.9.2 Maven
Step 5 :- change directory to → cd /root/Maven/bin → Pwd :- /root/Maven/bin
        Nano ~/.bashrc  → to exit → ctrl + x → y → enter
        cat ~/.bashrc → it will show like this
{      # .bashrc
# User specific aliases and functions
alias rm='rm -i'
alias cp='cp -i'
alias mv='mv -i'
# Source global definitions
if [ -f /etc/bashrc ]; then
        . /etc/bashrc
fi
export PATH=/root/Maven/bin:$PATH        }
then come to root directory by using command → cd
To activate the path : source .bashrc
step 6 :Install java why because maven is written in java
        yum install java-11* -y
         mvn --version




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Sample Maven Project in jar format
1)Launch an instance in the aws with linux template

2)Install maven in the instance

3)create a new template
        mvn archetype:generate
first choose a filter by giving a number 2049
we have choose a version --> always go for the latest version here we are choosing
version 1.4 and enter the number as 8
enter the groupid or companyname --> jspiders
enter the artifactId or projectname --> virus
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enter the version --> for now leave as it is
enter the package name --> for now leave as it is
confirm properties configuration by typing y
	we have to BUILD SUCCESS

4)check for the files
	ls
we will get the list of files present
in this list enter into the following path
	/root/virus/src/main/java/jspiders
there we will get a file called --> App.java --> in this file there will be a default hello world program
come back to the root directory
	cd
Note--> All the default lifecycle steps must be performed in the project directory itself

5)To validate
first enter into the project
	cd virus
to validate the project structure
	mvn validate
we have to get as BUILD SUCCESS by this we can get to know that the validate is successfull

6)To compile
once the project is validated the next step is compailation
but before compailation we have to clear the cache memory
	mvn clean
we have to get BUILD SUCCESS by this we can say that all the cache memory is cleaned
once the cleaning process is done next step is compailation
	mvn compile
once compilelation is done it will generate a .class file in the target directory
then check for the target directory
	ls
check whether the .class file present inside target directory by entering into
	/root/virus/target/classes/jspiders
then come back to the root directory
	cd

7) To test
Once after the compilation is done the next step is testing[unit testing, done by dev]
enter into the project
	cd virus
for testing the code[to check weather the source code is working properly or not]
	mvn test
we have to get BUILD SUCCESS by this we can conclude that the test is successfull
to get the report of the test

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        cd target
        cd surefire-reports
        cat jspiders.AppTest.txt[this file will be having all the reports of the
test conducted]

8)To create a package
        mvn package--> by usin this command we are going to generate an ececutable
file which is in jar format which will be present in target directory
we should get BUILD SUCCESS by getting this we can say package is created
successfully
check for the jar file
        /root/insta/target

9)To verify
        mvn verify--> it is used to check for the integration test by verifying the
build
we should get BUILD SUCCESS by this we can confirm that the verification is
correctly done

10)To install
        mvn install--> it is going to install our maven project in our system by
downloading dependencies in .ms directory
we should get BUILD SUCCESS by this we can say the installation process in
successfull
go back to root
        cd
check for the hidden file
        ls -a--> here we will find .m2 directory
check wheather .pom file is present or not in
         /root/.m2/repository/meta/insta/1.0-SNAPSHOT
this .pom file contains all the dependencies

11)To get the reports of the project
get back to the project directory
        cd virus
to generate a site documentation of our project
        mvn site
to get the documentation go inside
        /root/insta/target/site
in this file we will get all the reports of the our project

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Sample Project in war format

1)To prepare a template
        mvn archetype:generate -DarchetypeArtifactId=maven-archetype-webapp
enter the groupid
enter the artifactid
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enter the version(default)
enter the package(default)

Rest are the same steps as mentioned above

Note:In war format there will not be .class file present in the target directory and in src we will be having only main and as it is web application it will not give a report of the unit test

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Dinteractive Mode for jar format

1)for creating template
        mvn archetype:generate -DgroupId=testyentra -DartifactId=qtalk -DarchetypeArtifactId=maven-archetype-quickstart -DinteractiveMode=false
this command is used to create a maven project in jar format which is in de-interactive mode

Rest of the steps are the same

Dinteractive Mode for war format

1)for creating template
        mvn archetype:generate -DgroupId=meta -DartifactId=insta -DarchetypeArtifactId=maven-archetype-webapp -DinteractiveMode=false
this command is used to create a maven project in war format which is in de-interactive mode

Rest of the steps are the same