Exercise 1: Testing lab set up

Step 1: Open the System Environment Variables by right-click on
This PC -> Properties -> Advanced System Settings -> Environment Variables…

Add the following as System Variables if not added already:

- **JAVA_HOME** = path to jdk folder (C:\Program Files\Java)
- **M2_HOME** = path to maven folder (C:\Program Files\Maven)
- **PATH** = add "%JAVA_HOME%/bin; %M2_HOME%/bin; <path to sonar-runner>\sonar-runner-2.4\bin;" to the existing path variables

Step 2: Start all the installed tools by executing the appropriate batch file.

Step 3: you can ensure all are working by accessing tools user interface with below mentioned URL's and credentials

1. http://localhost:9000 – SonarQube [admin/admin]
2. http://localhost:8080 – Tomcat [tomcat/s3cret]
3. http://localhost:8064/jenkins - Jenkins

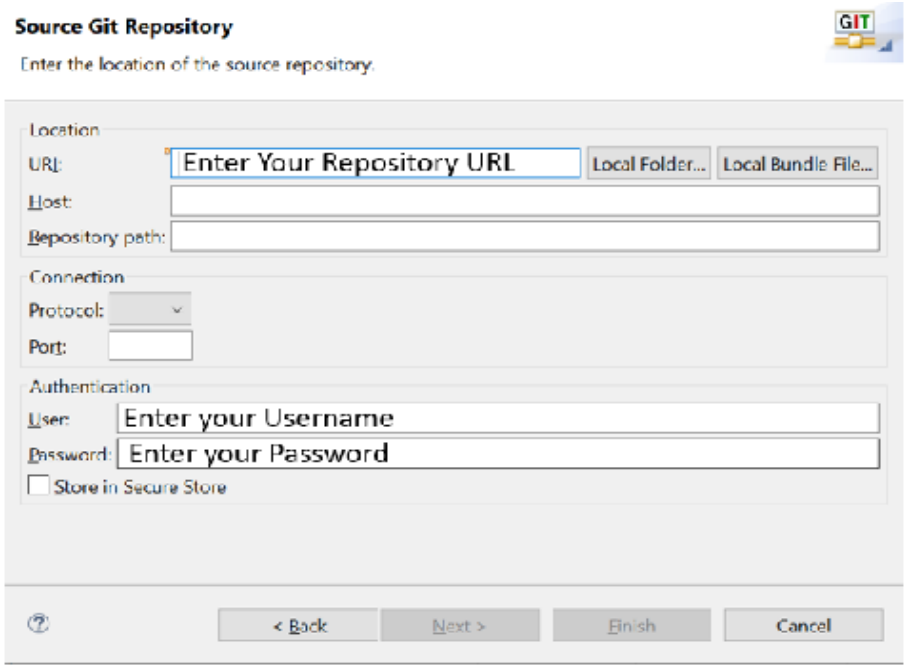
Summary: You have tested lab set up for the forthcoming exercises for Jenkins.

Exercise 2: Git operations

Objective: Perform the basic operations on Git repositories using EGit (Eclipse plugin)

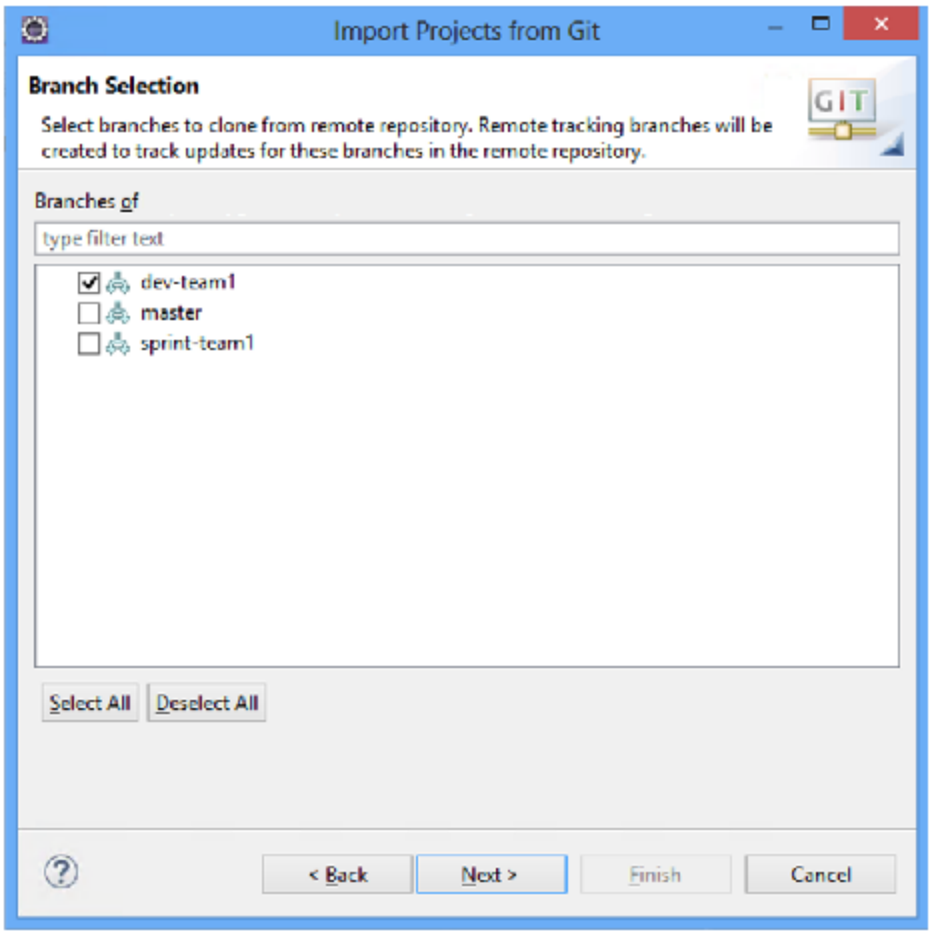
Pulling code from Git repository

Step 1: Go to Eclipse-> file->import-> Git -> Projects from Git -> Clone URI -> enter **central repository details** -> use credentials.

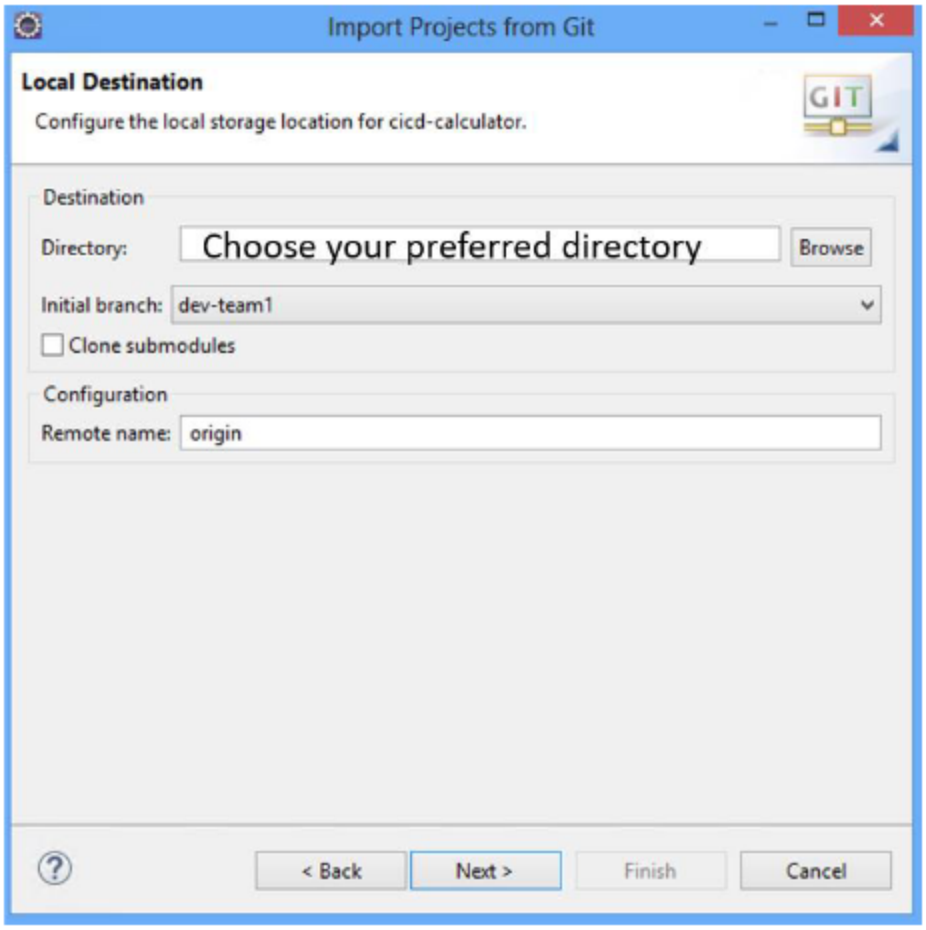


Click Next -> and choose branch (sample shown below)

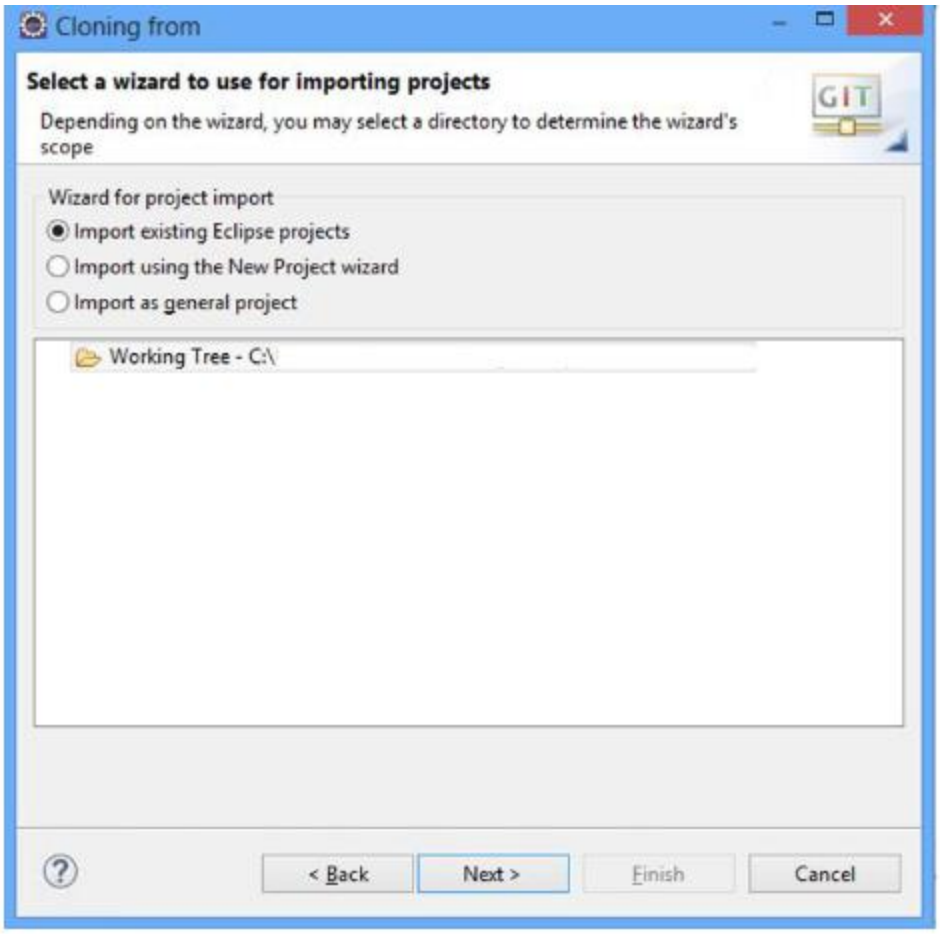
s



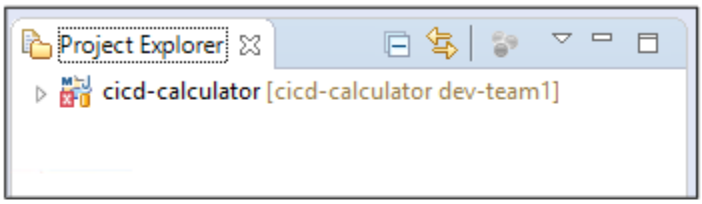
->Click next->browse directory to keep local repository as shown below->



->Next ->Choose first option as shown below->click Next->

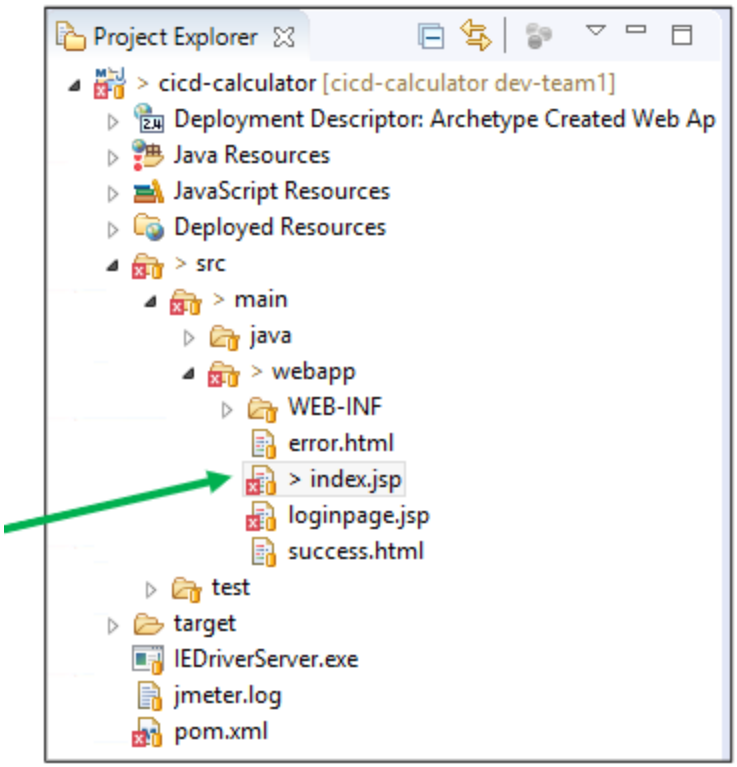


->Click Next -> click Finish->you can observe project explorer view with project cloned as shown below->. The name of the project is JNTU_Calc_Application in your case.

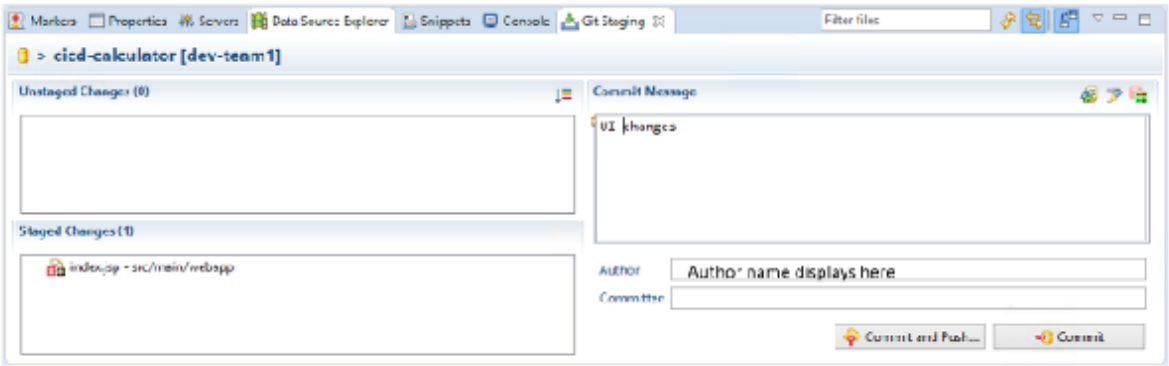


Commit Changes from Eclipse to Local Git Repository

Step 1: Expand the project cicd-calculator-> go to src\main\webapp\index.jsp -> make some changes to the code and save the changes->you can observe ">" symbol on project and edited source file as shown below.



Step 2: Right click on project->team->commit->drag the files from Unstaged Changes to Staged Changes ->Enter appropriate comments for the commit as shown below->

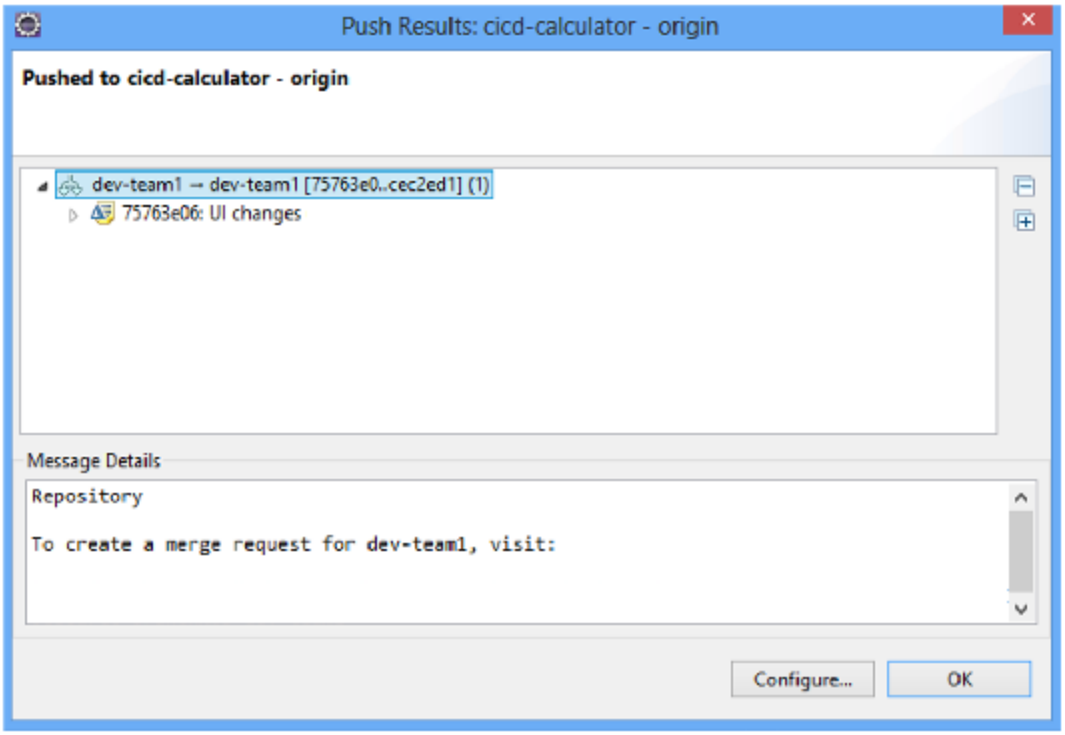


->click on Commit->you can observe the ">" symbol disappearing.

Note: similar way, we can commit multiple individual changes to local repository using commit option.

Push Changes from Local Git Repository (associated with Eclipse) to Remote Git Repository

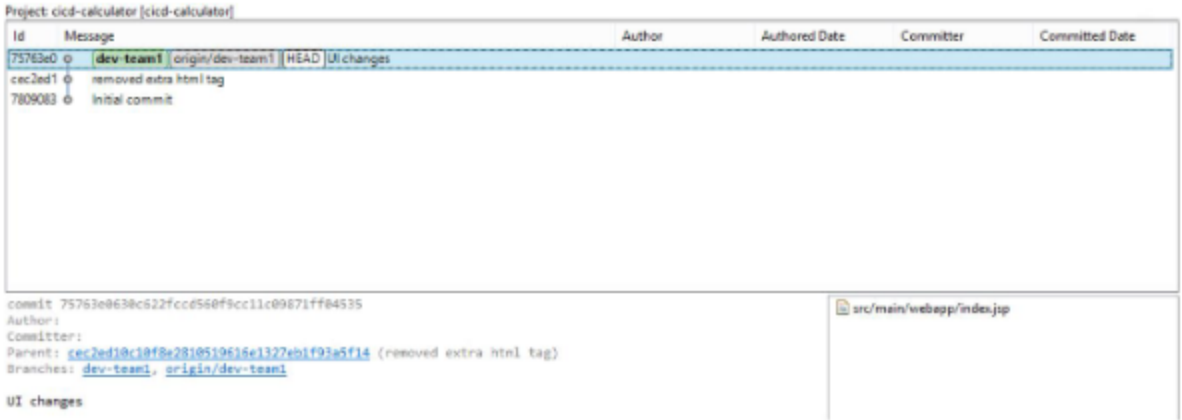
Step 1: Right click on project->team-> click on Push to upstream -> you can see changes successfully pushed from local repository to central repository as shown below.
Note: Your repository name and number may be different, this is an illustration.



Note: if push results to "non fast forward" rejection, perform below mentioned operations in sequence.(This is due to the fact that there has been more changes made possibly by other developers to the central Git repository and hence those changes need to be merged before committing the changes)

Fetch from upstream->merge with local branch ->resolve if there are any merge conflicts->commit-> push.

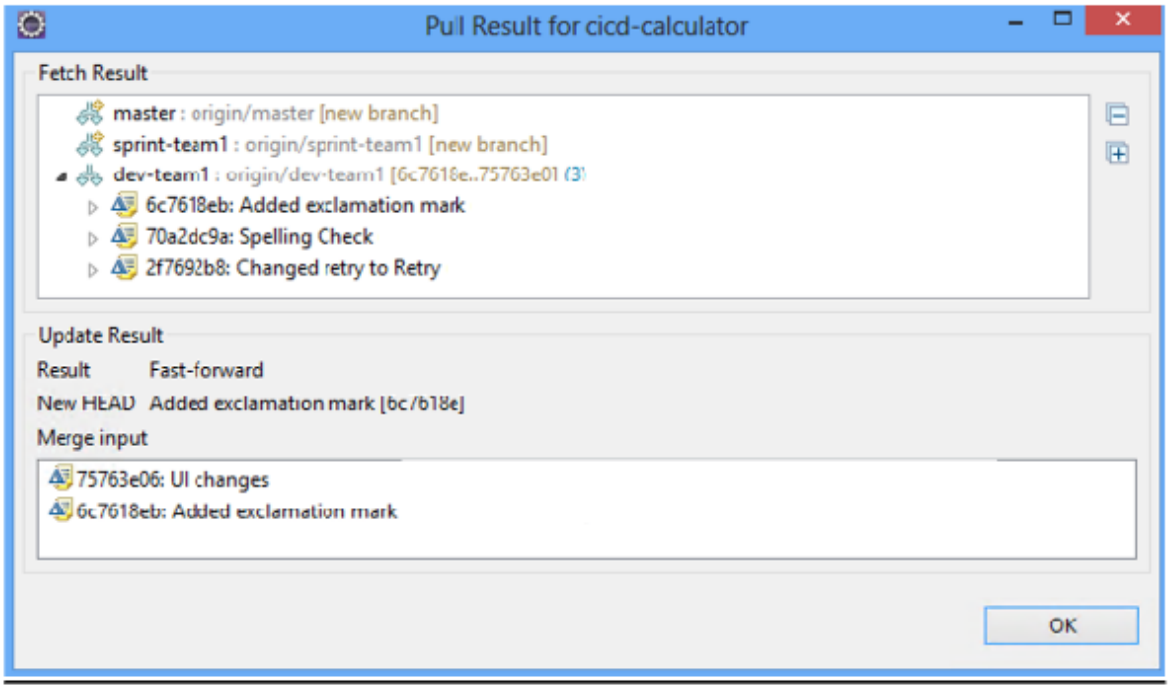
You can observe the revision history using project->team->"Show In History" as shown below.



Pull Changes from Remote Git Repository to Local Git Repository (associated with Eclipse)

Assumption: A team member has committed three changes to remote repository.

Step 1: Right click on project->team->Pull->enter credentials if required->you can observe fetch result and merge input see as shown below



Note: Pull perform two actions in sequence, Fetch and Merge. So if there are any merge conflicts after pull operation, you have to resolve and commit again.

You can observe the updated revision history using project->team->"Show in History".

Pull the project from remote Git repository to local Eclipse work space using EGit. Practice the following commands-

a. Commit and push operations
b. Fetch operation
c. Merge operation with and without conflicts. When there is a conflict, resolve the conflict and push the code back to the branch provided.

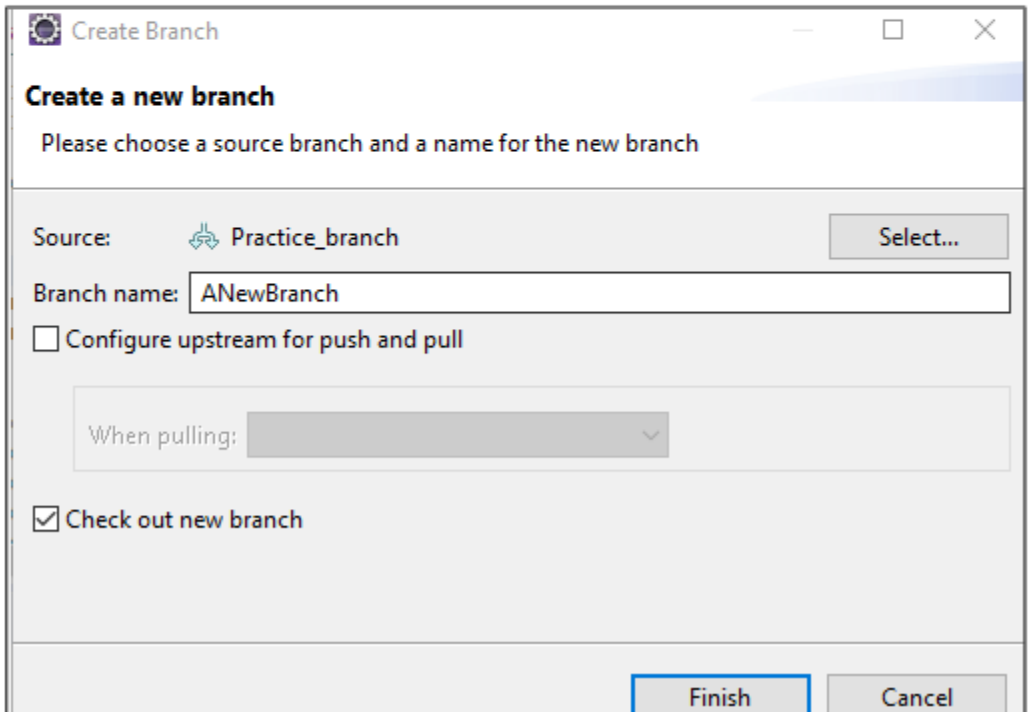
Note: Perform commit, and push operations on remote Git repository by making some changes to source code. You can use the repository provided in the earlier demo for completing this exercise.

Creating branches on local repository from eclipse via e-git plugin:

Step 1: Right click on the Project in the Project Explorer and go to Teams -> Switch to -> New Branch…

Step 2: The parent branch will by default be that branch that is currently open in Eclipse, you can also change it by clicking on the **Select** option.

Step 3: Name the New Branch and check on the **Check out as new branch** if you would like to switch to the new branch as well. Click on **Finish.**

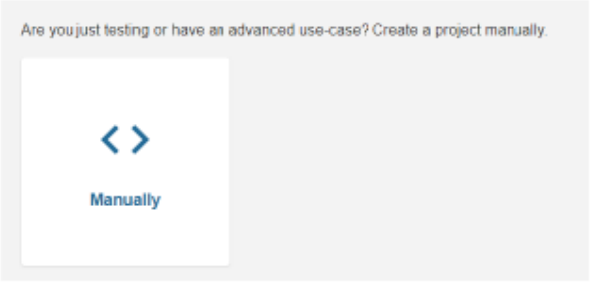


Summary: You have learnt to do basic operations with Git related to version control in this exercise.

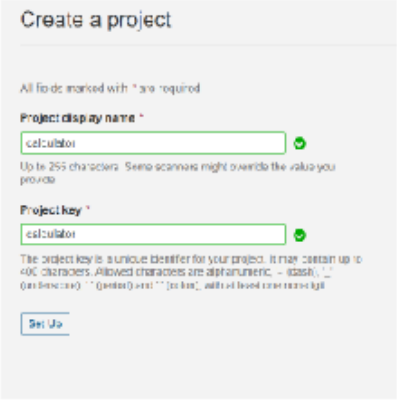
Exercise 3: Creating a project in SonarQube

Objective: Understand creation of project in Sonarqube

Step 1: Go to SonarQube URL and login with credentials: admin: password
Step 2: Click on the manually option on the SonarQube dashboard as shown in the screenshot given below.

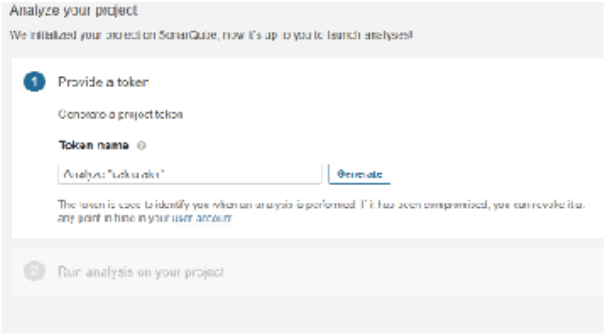


Step 3: Enter the project display name and project key as calculator as shown in the screenshot given below and click Set Up.

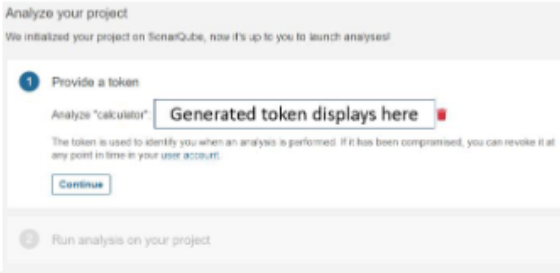


Step 4: Click on Locally option as shown in the screenshot given below.

Step 5: Click on the Generate option as shown in the screenshot given below.



Step 6: You can see the token generated as shown in the screenshot given below. Click on continue.
Note: Copy the token and save it somewhere on your system. It cannot be retrieved later.



Step 7: Select Maven under the run analysis on your project as shown in the screenshot given below.

Step 8: Paste the copied token in the pom.xml within the <sonar.login> tag as shown in the screenshot given below.

```
<sonar.login>Place the token here</sonar.login>
```

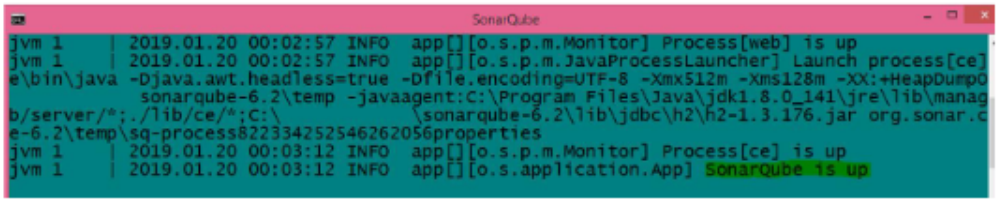
Summary: You have learnt to create a project in sonarqube in this exercise.

Exercise 4: Using Sonarqube with Sonar-Runner

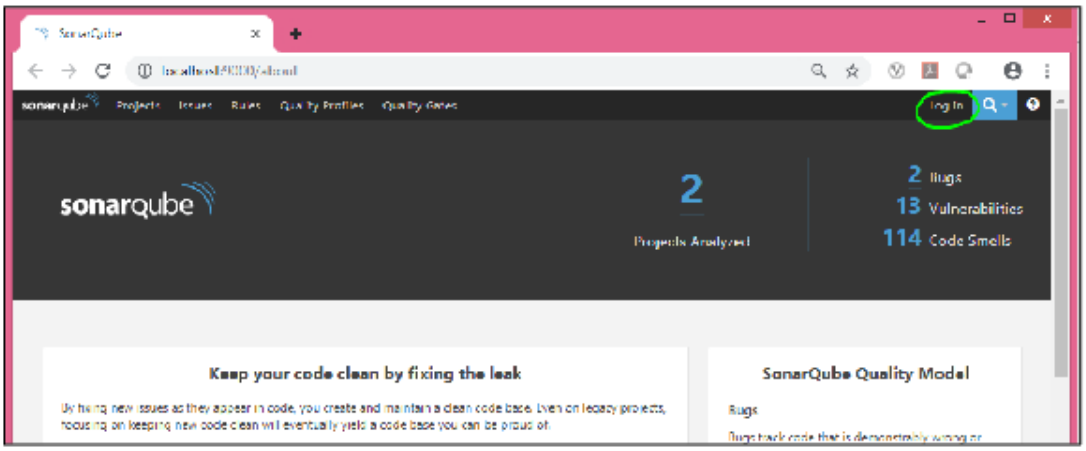
Objective: Understand running of Sonarqube using Sonar-Runner command-line tool

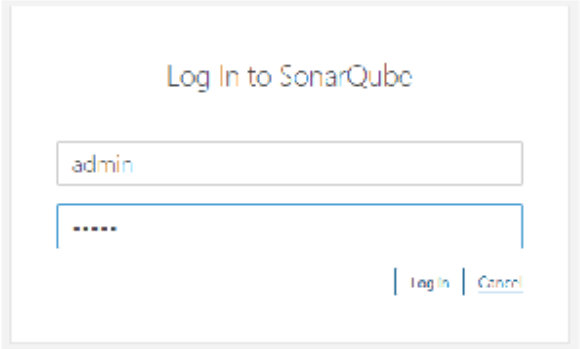
Step 1: Start Sonar server by using the appropriate bat file.

Once started, you should see success message in console window:



Go to SonarQube server dashboard at http://localhost:9000 and login using admin/admin





Step 2: Go to conf folder of Sonar Runner. Make the following changes based on the name of the Project provided to you and the path where it exists in your system:

```
#Configure here general information about the environment, such as SonarQube DB de
#No information about specific project should appear here

#----- Default SonarQube server
sonar.host.url=http://localhost:9000

#----- Default source code encoding
sonar.sourceEncoding=UTF-8

#----- Security (when 'sonar.forceAuthentication' is set to 'true')
sonar.login=admin
sonar.password=admin

sonar.projectKey= Your project key on pom.xml
sonar.projectName= Your project name on pom.xml
sonar.projectVersion= Your project version on pom.xml
sonar.sources= Location to src folder of your project
sonar.binaries= Location to classes folder of your project
sonar.log.level=WARN
sonar.language=java
```

Open command prompt inside the project src folder in File Explorer and run the following command:

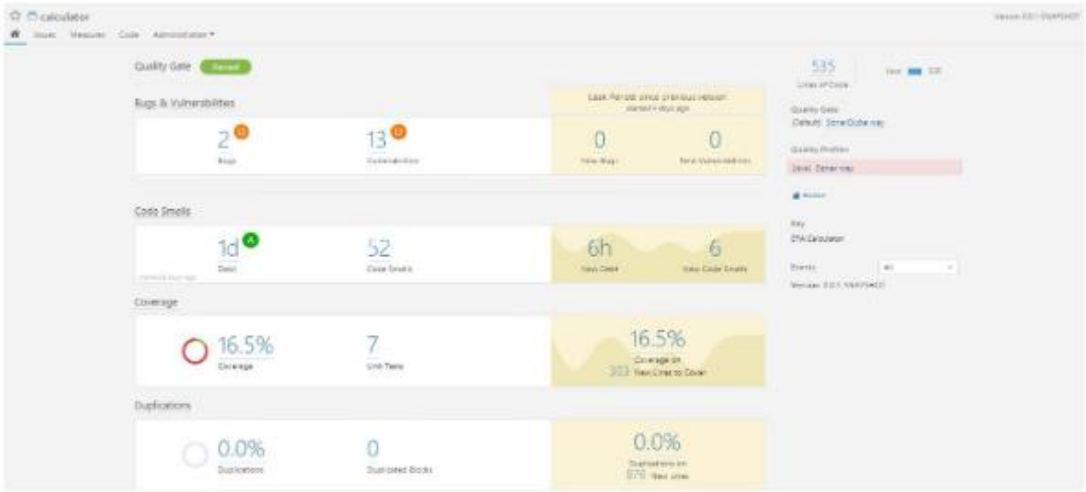
```
C:\Windows\System32\cmd.exe - sonar-runner
Microsoft Windows [Version 6.3.9600]
(c) 2013 Microsoft Corporation. All rights reserved.

C:\            \sonar-runner-2.4>sonar-runner
C:\            \sonar-runner-2.4\bin\..
SonarQube Runner 2.4
Java 1.8.0_141 Oracle Corporation (64-bit)
Windows 8.1 6.3 amd64
INFO: Runner configuration file: C:            \sonar-runner-2.4\bin\..\
INFO: Project configuration file: NONE
INFO: Default locale: "en_US", source code encoding: "UTF-8"
```

Once execution is successful:

a) Observe the static code analysis report and critical issues on SonarQube dashboard. Select your project name from list of projects to view the latest report.
b) Resolve the technical issues in code and rerun the Maven build. Notice the changes to the technical debt value.

Run the build file and observe the results.



Summary of this Exercise:

You have learnt to observe the results of static code analysis using Sonarqube

Exercise 5: Creating a local repository in Artifactory

Objective: Understand creation of local repository in Artifactory

Step 1: Go to Artifactory URL and login with credentials: admin: Password1!
Step 2: Go to Administration -> Repositories -> Repositories -> Add repositories -> Local Repository.
Step 3: Select the package type as Maven
Step 4: To add the repository key, go to pom.xml and copy the <name> tag value (Calc_Dev_Snapshot) as shown in the screenshot given below.

```
<distributionManagement>
    <repository>
        <id>artifactory</id>
        <name>Calc_Dev_Snapshot</name>
        <url>http://localhost:8081/artifactory/Calc_Dev_Snapshot</url>
    </repository>
</distributionManagement>
```

Step 5: Click on Create Local Repository.
Step 6: You can view the binaries stored in the artifactory under Application -> Artifactory -> Packages.

Summary: You have learnt to create a local repository in artifactory in this exercise.

Exercise 6: Build automation using Maven

Objective: Understand build automation by writing a script in Maven with goals to invoke activities in a CI pipeline.

```
<?xml version="1.0" encoding="UTF-8"?>
<project xmlns="http://maven.apache.org/POM/4.0.0"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
      xsi:schemaLocation="http://maven.apache.org/POM/4.0.0
http://maven.apache.org/maven-v4_0_0.xsd">
      <modelVersion>4.0.0</modelVersion>
      <groupId>ETA</groupId>
      <artifactId>Calculator</artifactId>
      <packaging>war</packaging>
      <version>0.0.1-SNAPSHOT</version>
      <name>calculator</name>
      <url>http://calculator</url>

      <dependencies>
            <dependency>
                  <groupId>junit</groupId>
                  <artifactId>junit</artifactId>
                  <version>4.11</version>
            </dependency>
            <dependency>
                  <groupId>javax.servlet</groupId>
                  <artifactId>javax.servlet-api</artifactId>
                  <version>3.1.0</version>
            </dependency>
            <dependency>
                  <groupId>org.seleniumhq.selenium</groupId>
                  <artifactId>selenium-java</artifactId>
                  <version>3.6.0</version>
                  <scope>provided</scope>

            </dependency>
      </dependencies>

      <build>
            <finalName>calculator</finalName>
            <plugins>
                  <plugin>
                        <groupId>org.apache.maven.plugins</groupId>
                        <artifactId>maven-war-plugin</artifactId>
                        <version>2.1.1</version>
                        <configuration>
                              <archive>
                                    <manifestEntries>

      <version>${project.version}</version>
```

```
                        </manifestEntries>
                    </archive>
                </configuration>
            </plugin>
            <plugin>
                <groupId>org.sonarsource.scanner.maven</groupId>
                <artifactId>sonar-maven-plugin</artifactId>
                <version>3.2</version>
            </plugin>
            <plugin>
                <groupId>org.jacoco</groupId>
                <artifactId>jacoco-maven-plugin</artifactId>
                <version>0.7.9</version>
                <executions>
                    <execution>
                        <id>default-prepare-agent</id>
                        <goals>
                            <goal>prepare-agent</goal>
                        </goals>
                    </execution>
                    <execution>
                        <id>default-report</id>
                        <phase>prepare-package</phase>
                        <goals>
                            <goal>report</goal>
                        </goals>
                    </execution>
                    <execution>
                        <id>default-check</id>
                        <goals>
                            <goal>check</goal>
                        </goals>
                        <configuration>
                            <rules>
                                <!-- implementation is
needed only for Maven 2 -->

                                <rule
implementation="org.jacoco.maven.RuleConfiguration">

                                    <element>BUNDLE</element>
                                    <limits>
                                        <!--
implementation is needed only for Maven 2 -->
                                        <limit
implementation="org.jacoco.report.check.Limit">

                                            <counter>COMPLEXITY</counter>

                                            <value>COVEREDRATIO</value>

                                            <minimum>0.10</minimum>
                                        </limit>
                                    </limits>
                                </rule>
                            </rules>
```

```
                                        </configuration>
                                  </execution>
                            </executions>
                      </plugin>
                </plugins>
          </build>

          <profiles>
                <profile>
                      <id>ut</id>
                      <build>
                            <plugins>
                                  <plugin>

          <groupId>org.apache.maven.plugins</groupId>
                                        <artifactId>maven-surefire-
    plugin</artifactId>
                                        <configuration>
                                              <includes>


          <include>**/Calculaterut.java</include>


                                              </includes>
                                        </configuration>
                                  </plugin>
                            </plugins>
                      </build>
                </profile>
                <profile>
                      <id>it</id>
                      <build>
                            <plugins>
                                  <plugin>


      <groupId>org.apache.maven.plugins</groupId>
                                        <artifactId>maven-surefire-
plugin</artifactId>
                                        <configuration>
                                              <includes>

      <include>**/CalculatorIT.java</include>
                                              </includes>
                                        </configuration>
                                  </plugin>
                            </plugins>
                      </build>
                </profile>
                <profile>
                      <id>pt</id>
                      <build>
                            <plugins>
                                  <plugin>
```

```
        <groupId>com.lazerycode.jmeter</groupId>
                                        <artifactId>jmeter-maven-
plugin</artifactId>
                                        <version>2.4.0</version>
                                    <executions>
                                            <execution>
                                                <id>jmeter-tests</id>
                                                <phase>test</phase>
                                                <goals>
                                                    <goal>jmeter</goal>
                                                </goals>
                                            </execution>
                                        </executions>
                                    </plugin>
                                </plugins>
                            </build>
                        </profile>

        </profiles>



</project>


<!-- -->
```

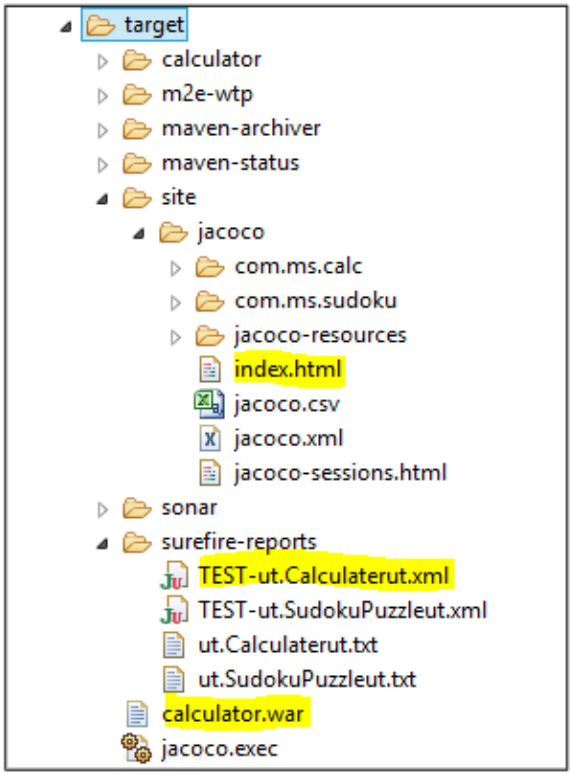
Once you run the pom.xml in the order "clean compile test jacoco:report sonar:sonar

Once you run the pom.xml in the order "clean compile test jacoco:report sonar:sonar war:war", you can see the output on console as shown below.

```
[INFO] ------------------------------------------------------------------------
[INFO] BUILD SUCCESS
[INFO] ------------------------------------------------------------------------
[INFO] Total time: 48.720 s
[INFO] Finished at:
[INFO] Final Memory: 40M/351M
[INFO] ------------------------------------------------------------------------
```

You can also find the results of the maven goals executed in the target folder of your project:

1. JUnit test reports in xml and txt: surefire-reports folder
2. Jacoco code coverage reports in html and xml: Under site/jacoco/
3. War file



Summary of this Exercise: You have learnt to use Maven tool for build automation.

Exercise 7: Jenkins Installation & System Configuration

Objective: Configure Jenkins for CI

Note:
You can install Jenkins in two ways on Windows –

a. Install Jenkins as a Windows service
b. Use webserver with a servlet container like GlassFish or Tomcat, and then deploy Jenkins.war to it.

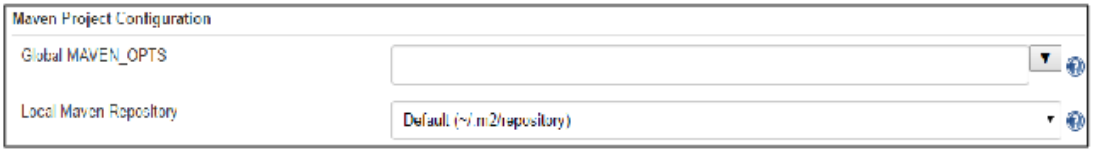
We have used the first approach in this exercise.

Configuring Jenkins

Step 1: Start the Jenkins server and enter URL http://localhost:8064/jenkins in browser

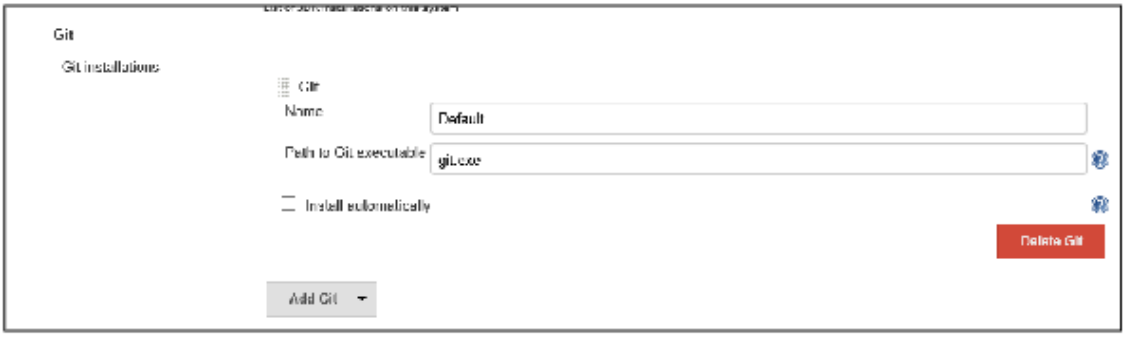
Step 2: Go to Manage Jenkins -> Configure System
Configure global settings and paths.

Step 3: You can observe Jenkins Maven integration as shown below:



Additional configurations

1. Provide the tool configuration (JDK, Maven) in the Manage Jenkins ->Global Tool configuration tab



2. Go to global properties (Manage Jenkins->Configure system->Global properties->environment variables) and set JAVA_HOME and M2_HOME to the respective machine path

Summary of this Exercise:
You have learnt to configure Jenkins.

Exercise 8: Download the plugins in Jenkins

Objective: Download the plugins in Jenkins
Step 1: Go to Jenkins URL
Step 2: Go to Manage Jenkins -> Manage Plugins from the Jenkins dashboard
Step 3: Under the available tab of plugins manager search for the copy artifact plugin and check the check box as shown in the screenshot given below.

Step 4: Repeat the step – 3 and select the below mentioned plugins and click on install without restart.

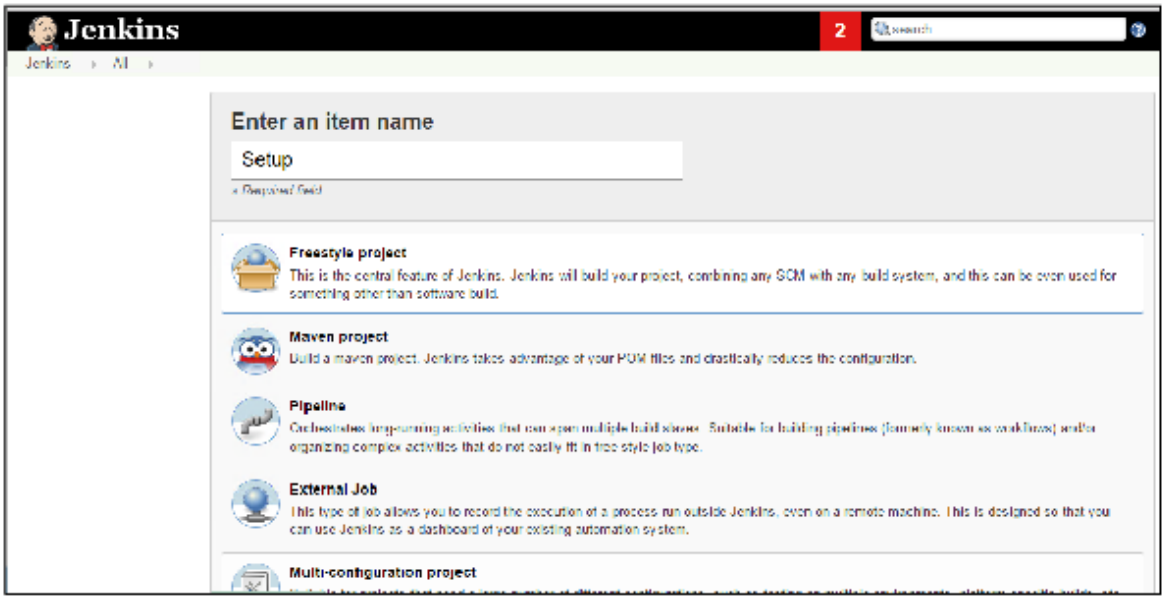
a. JaCoCo
b. Artifactory
c. Build pipeline
d. Deploy to container

Summary: You have learnt to download plugins in Jenkins in this exercise.

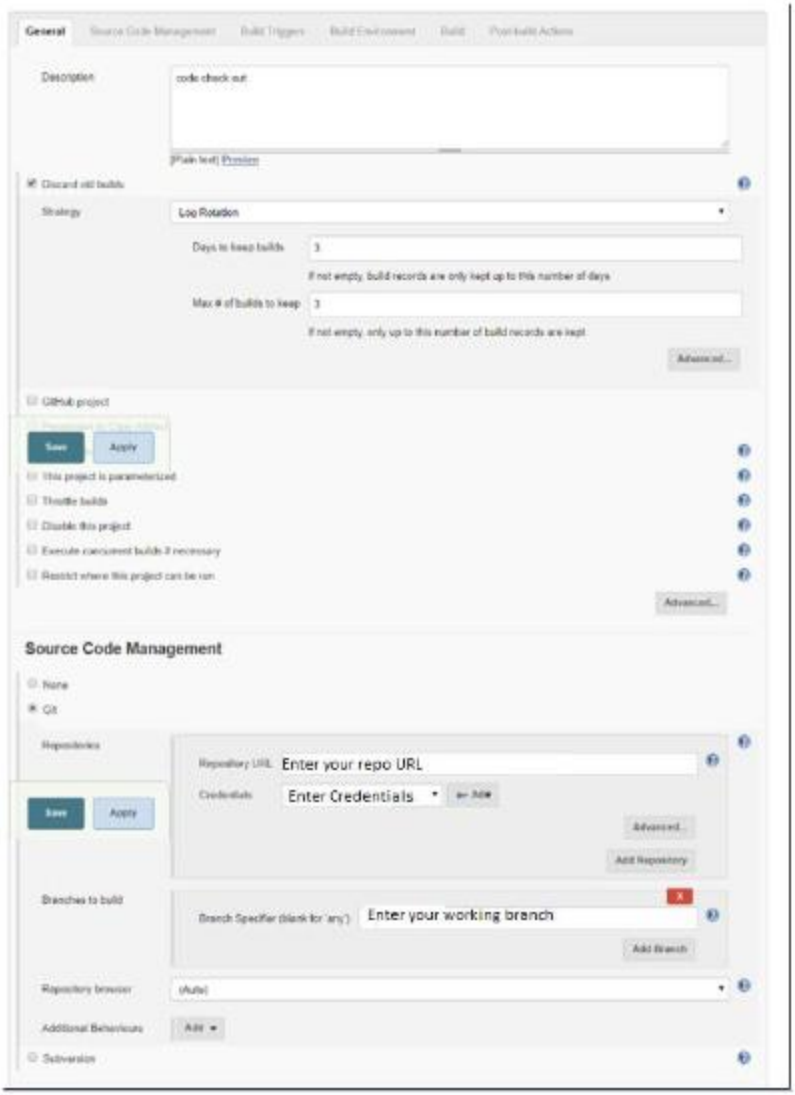
Exercise 9: Creating Central CI pipeline

Objective: Creating main line CI pipeline

Create a new Folder item with name "Central_CI" using "New Item" option as shown below. Add jobs of type Freestyle Project for each of tasks needed in the the continuous integration pipeline.



Step 1: Create below mentioned job - Setup


General
Description
code check out
Discard old builds
Strategy
Log Rotation
Days to keep builds
Max # of builds to keep
Advanced...
GitHub project
Save
Apply
This project is parameterized
Throttle builds
Disable this project
Execute concurrent builds if necessary
Restrict where this project can be run
Advanced...
Source Code Management
None
Git
Repositories
Repository URL
Enter your repo URL
Credentials
Enter Credentials
Advanced...
Add Repository
Branches to build
Branch Specifier (blank for 'any')
Enter your working branch
Add Branch
Repository browser
(Auto)
Additional Behaviours
Add
Subversion

Build Triggers

- [ ] Trigger builds remotely (e.g., from scripts)
- [ ] Build after other projects are built
- [ ] Build periodically
- [ ] Build when another project is promoted
- [ ] Gitlab hook trigger for GITScm polling
- [x] Poll SCM

Schedule: H/2 * * * *

- [ ] Ignore post-commit hooks

Build Environment

- [x] Delete workspace before build starts

Advanced...

- [ ] Abort the build if it's stuck

Save Apply ...ole Output

- [ ] Use secret text(s) or file(s)
- [ ] With Ant

Build

Invoke top-level Maven targets

Maven Version: new

Goals: clean

Advanced...

Add build step

Post-build Actions

Save Apply

Files to archive: **/*

Advanced...

Build other projects

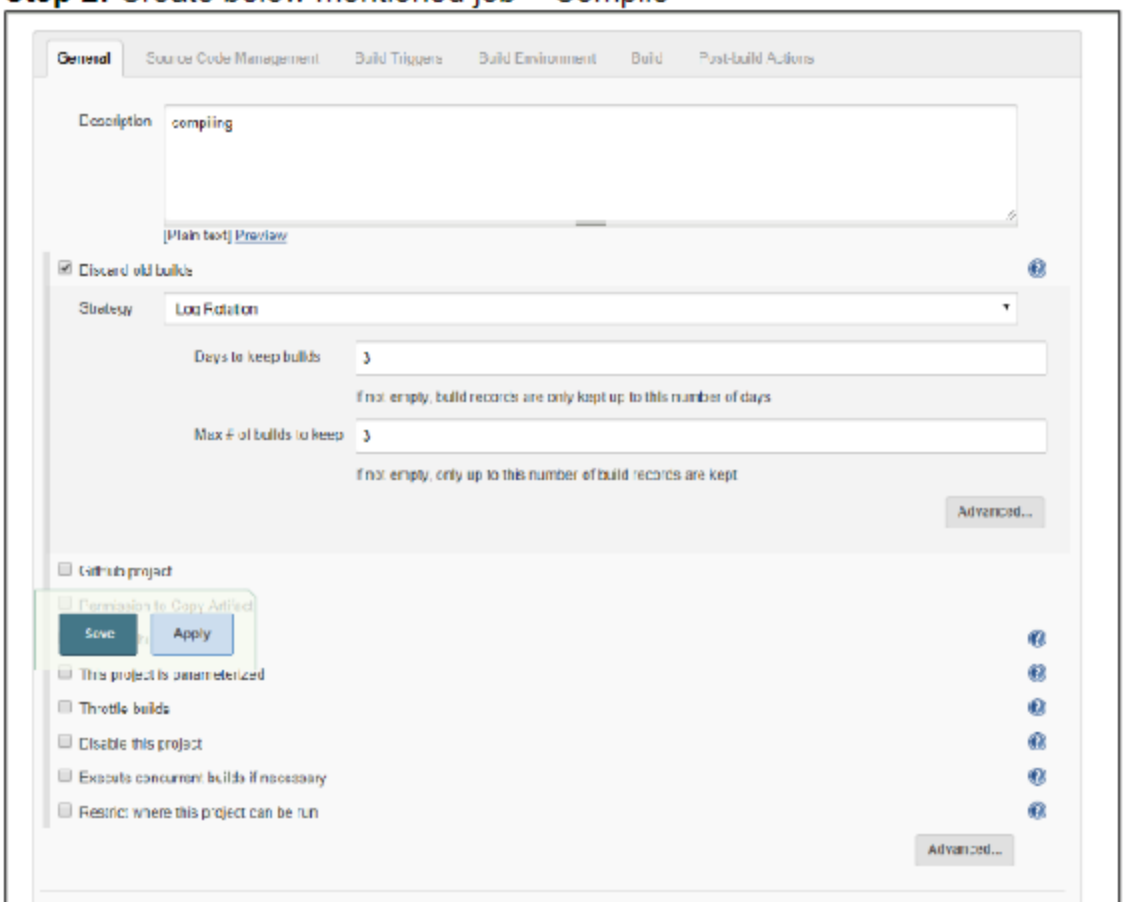
Projects to build: Compile

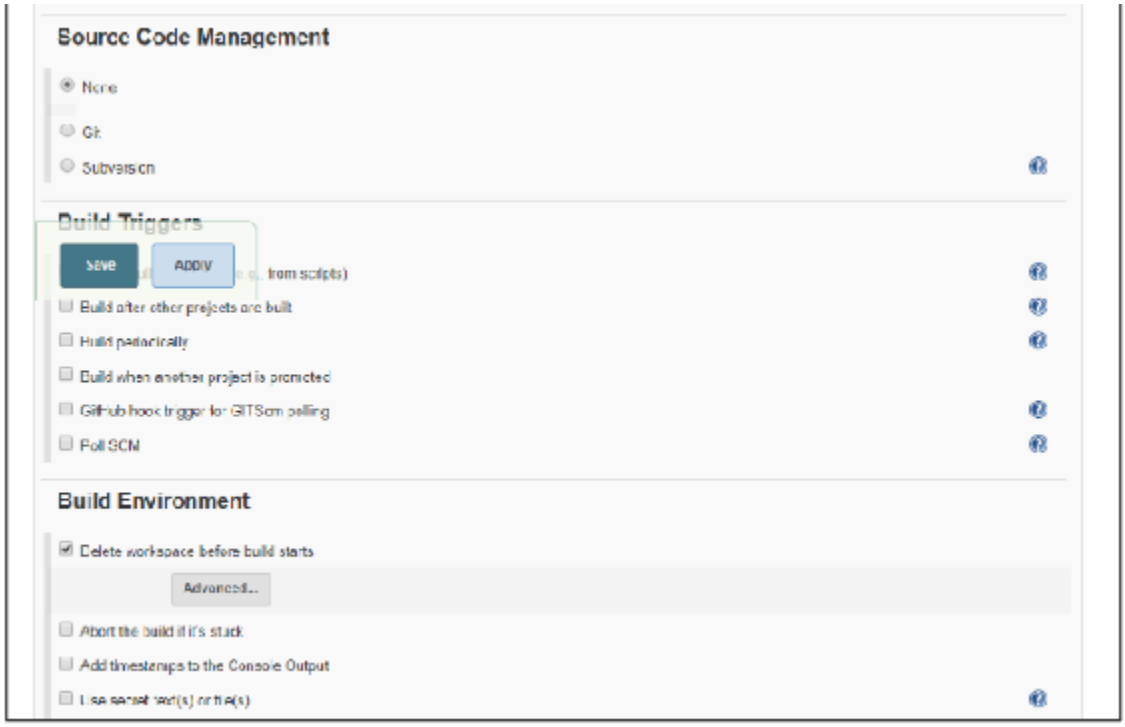
- (•) Trigger only if build is stable
- ( ) Trigger even if the build is unstable
- ( ) Trigger even if the build fails

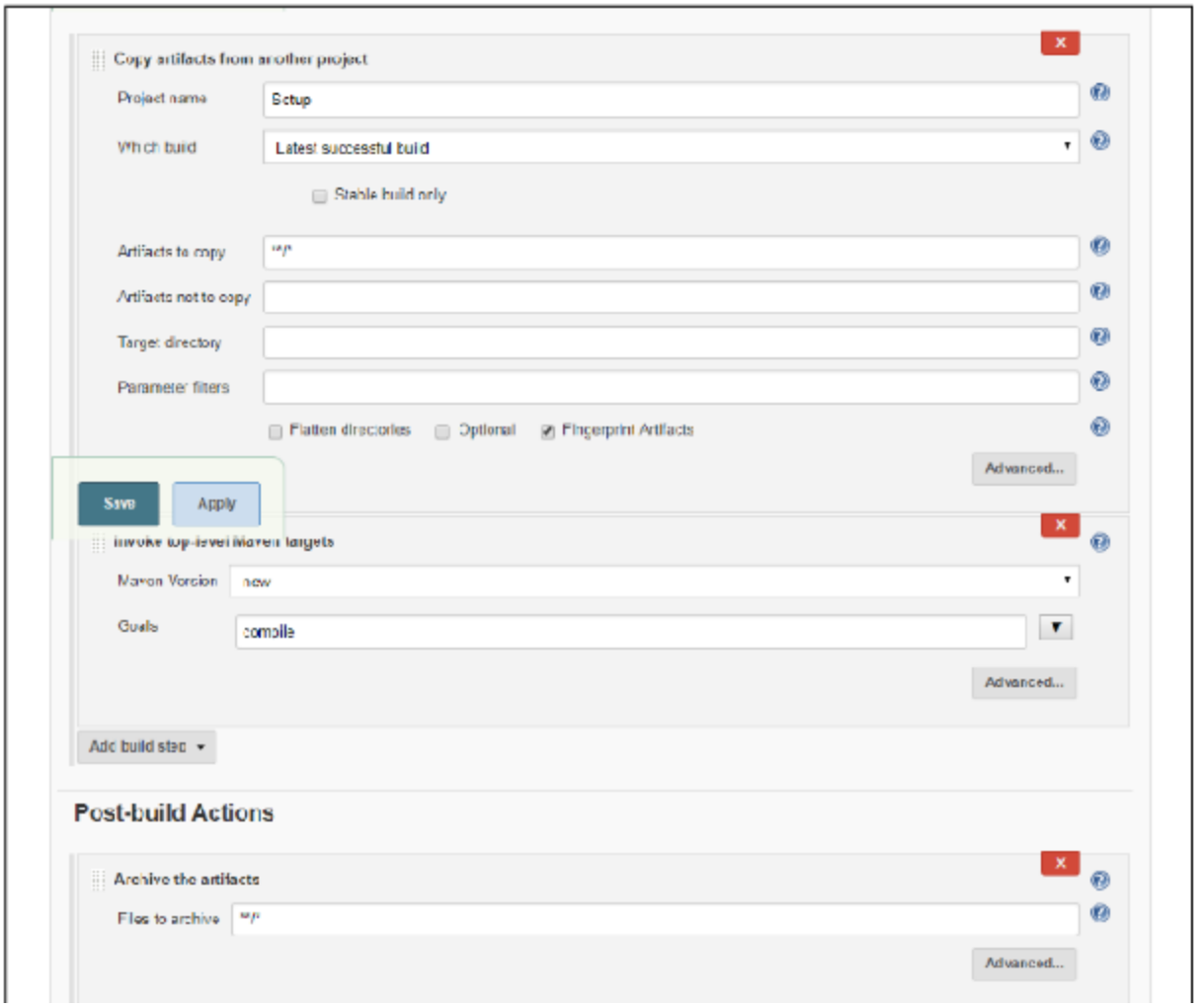
Add post-build action

Save Apply

Step 2: Create below mentioned job – Compile







Step 3: Create below mentioned job – Unit test

General | Source Code Management | Build Triggers | Build Environment | Build | Post-build Actions

Description: unitTest

[Plain text] Preview

☑ Discard old builds

Strategy: Log Rotation

Days to keep builds: 3

if not empty, build records are only kept up to this number of days

Max # of builds to keep: 3

if not empty, only up to this number of build records are kept

Advanced...

☐ GitHub project

☐ Permission to Copy Artifact

☐ Promote builds when...

☐ This project is parameterized

☐ Throttle builds

☐ Disable this project

☐ Execute concurrent builds if necessary

☐ Restrict where this project can be run

Advanced...

Source Code Management

◉ None

○ Git

○ Subversion

Build Triggers

☐ Trigger builds remotely (e.g., from scripts)

☐ Build after other projects are built

☐ Build periodically

☐ Build when another project is promoted

☐ GitHub hook trigger for GITScm polling

☐ Poll SCM

Build Environment

☑ Delete workspace before build starts

Advanced...

☐ Abort the build if it's stuck

☐ Add timestamps to the Console Output

☐ Use secret text(s) or file(s)

☐ With Ant

Build

Copy artifacts from another project

Project name: StaticAnalysis

Which build: Latest successful build

Stable build only

Artifacts to copy: **/*

Artifacts not to copy:

Target directory:

Parameter filters:

Flatten directories Optional Fingerprint Artifacts

Advanced...

Invoke top-level Maven targets

Maven Version: mvn

Goals: test -Pui

Advanced...

Add build step

Post-build Actions

Archive the artifacts

Files to archive: **/**

Advanced...

Build other projects

Projects to build: CodeCoverage

Trigger only if build is stable

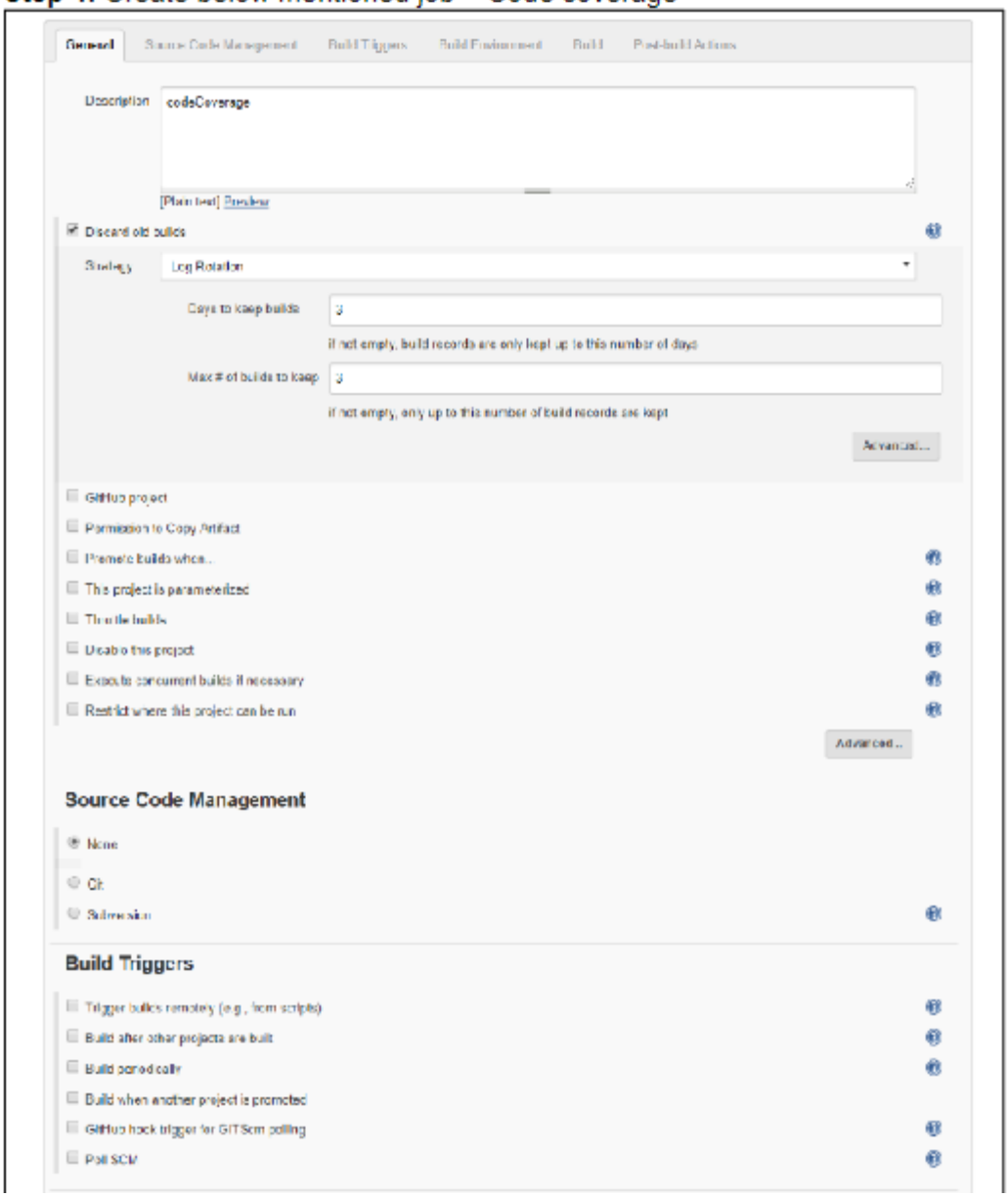
Trigger even if the build is unstable

Trigger even if the build fails

Add post-build action

Save Apply

Step 4: Create below mentioned job – Code coverage



Build

Copy artifacts from another project

Project name: UnitTest

Which build: Latest successful build

Stable build only

Artifacts to copy: war

Artifacts not to copy:

Target directory:

Parameter filters:

Flatten directories Optional Fingerprint Artifacts

Advanced...

Invoke top-level Maven targets

Maven Version: new

Goals: jacoco:report

Advanced...

Add build step

Post-build Actions

Archive the artifacts

Files to archive: **/*

Advanced...

Build other projects

Projects to build: War

Trigger only if build is stable

Trigger even if the build is unstable

Trigger even if the build fails

Add post build action

Save Apply

Step 5: Create below mentioned job – Static analysis

General | Source Code Management | Build Triggers | Build Environment | Build | Post-build Actions

Description: static analysis sonar

[Plain text] Preview

☑ Discard old builds

Strategy: Log Rotation

Days to keep builds: 3

If not empty, build records are only kept up to this number of days

Max # of builds to keep: 3

If not empty, only up to this number of build records are kept

Advanced...

☐ GitHub project

☐ Permission to Copy Artifact

☐ Promote builds when...

☐ This project is parameterized

☐ Throttle builds

☐ Disable this project

☐ Execute concurrent builds if necessary

☐ Restrict where this project can be run

Advanced...

Source Code Management

◉ None

○ Git

○ Subversion

Build Triggers

☐ Trigger builds remotely (e.g., from scripts)

☐ Build after other projects are built

☐ Build periodically

☐ Build when another project is promoted

☐ GitHub hook trigger for GITScm polling

☐ Poll SCM

Build Environment

☑ Delete workspace before build starts

Advanced...

☐ Abort the build if it's stuck

☐ Add timestamps to the Console Output

☐ Use secret text(s) or file(s)

☐ With Ant

Build

Copy artifacts from another project

Project name: Compile

Which build: Latest successful build

Stable build only

Artifacts to copy: **/*

Artifacts not to copy:

Target directory:

Parameter filters:

Flatten directories Optional Fingerprint Artifacts

Advanced...

Invoke top-level Maven targets

Maven Version: new

Goals: sonar:sonar

Advanced...

Add build step

Post-build Actions

Archive the artifacts

Files to archive: **/*

Advanced

Build other projects

Projects to build: UnitTest

Trigger only if build is stable

Trigger even if the build is unstable

Trigger even if the build fails

Add post-build action

Save Apply

Step 6: Create below mentioned job – war

General | Source Code Management | Build Triggers | Build Environment | Build | Post-build Actions

Description: war

[Plain text] Preview

☑ Discard old builds

Strategy: Log Rotation

Days to keep builds: 3

if not empty, build records are only kept up to this number of days

Max # of builds to keep: 3

if not empty, only up to this number of build records are kept

Advanced...

☐ GitHub project

☐ Permission to Copy Artifact

☐ Promote builds when...

☐ This project is parameterized

☐ Throttle builds

☐ Disable this project

☐ Execute concurrent builds if necessary

☐ Restrict where this project can be run

Advanced...

Source Code Management

◉ None

○ Git

○ Subversion

Build Triggers

☐ Trigger builds remotely (e.g., from scripts)

☐ Build after other projects are built

☐ Build periodically

☐ Build when another project is promoted

☐ GitHub hook trigger for GITScm polling

☐ Poll SCM

Build Environment

☑ Delete workspace before build starts

Advanced...

☐ Abort the build if it's stuck

☐ Add timestamps to the Console Output

☐ Use secret text(s) or file(s)

☐ With Ant

Build Environment

- [x] Delete workspace before build starts

Advanced...

- [ ] Abort the build if it's stuck
- [ ] Add timestamps to the Console Output
- [ ] Use secret text(s) or file(s)
- [ ] With Ant

Build

Copy artifacts from another project

Project name: CodeCoverage

Which build: Latest successful build

- [ ] Stable build only

Artifacts to copy: **/*

Artifacts not to copy:

Target directory:

Parameter filters:

- [ ] Flatten directories
- [ ] Optional
- [x] Fingerprint Artifacts

Advanced...

Invoke top-level Maven targets

Maven Version: new

Goals: war:war

Advanced...

Add build step

Post-build Actions

Archive the artifacts

Files to archive: **/*

Advanced

Build other projects

Projects to build: ToArtifactory

- (•) Trigger only if build is stable
- ( ) Trigger even if the build is unstable
- ( ) Trigger even if the build fails

Add post-build action

Save | Apply

Page generated: Jan 19, 2019 12:10:27 AM IST REST

Step 7: Create below mentioned job – ToArtifactory

General | Source Code Management | Build Triggers | Build Environment | Build | Post-build Actions

Description: war

[Plain text] Preview

☑ Discard old builds

Strategy: Log Rotation

Days to keep builds: 3

if not empty, build records are only kept up to this number of days

Max # of builds to keep: 3

if not empty, only up to this number of build records are kept

Advanced...

☐ GitHub project

☐ Permission to Copy Artifact

☐ Promote builds when...

☐ This project is parameterized

☐ Throttle builds

☐ Disable this project

☐ Execute concurrent builds if necessary

☐ Restrict where this project can be run

Advanced...

Source Code Management

◉ None

○ Git

○ Subversion

Build Triggers

☐ Trigger builds remotely (e.g., from scripts)

☐ Build after other projects are built

☐ Build periodically

☐ Build when another project is promoted

☐ GitHub hook trigger for GITScm polling

☐ Poll SCM

Build Environment

☑ Delete workspace before build starts

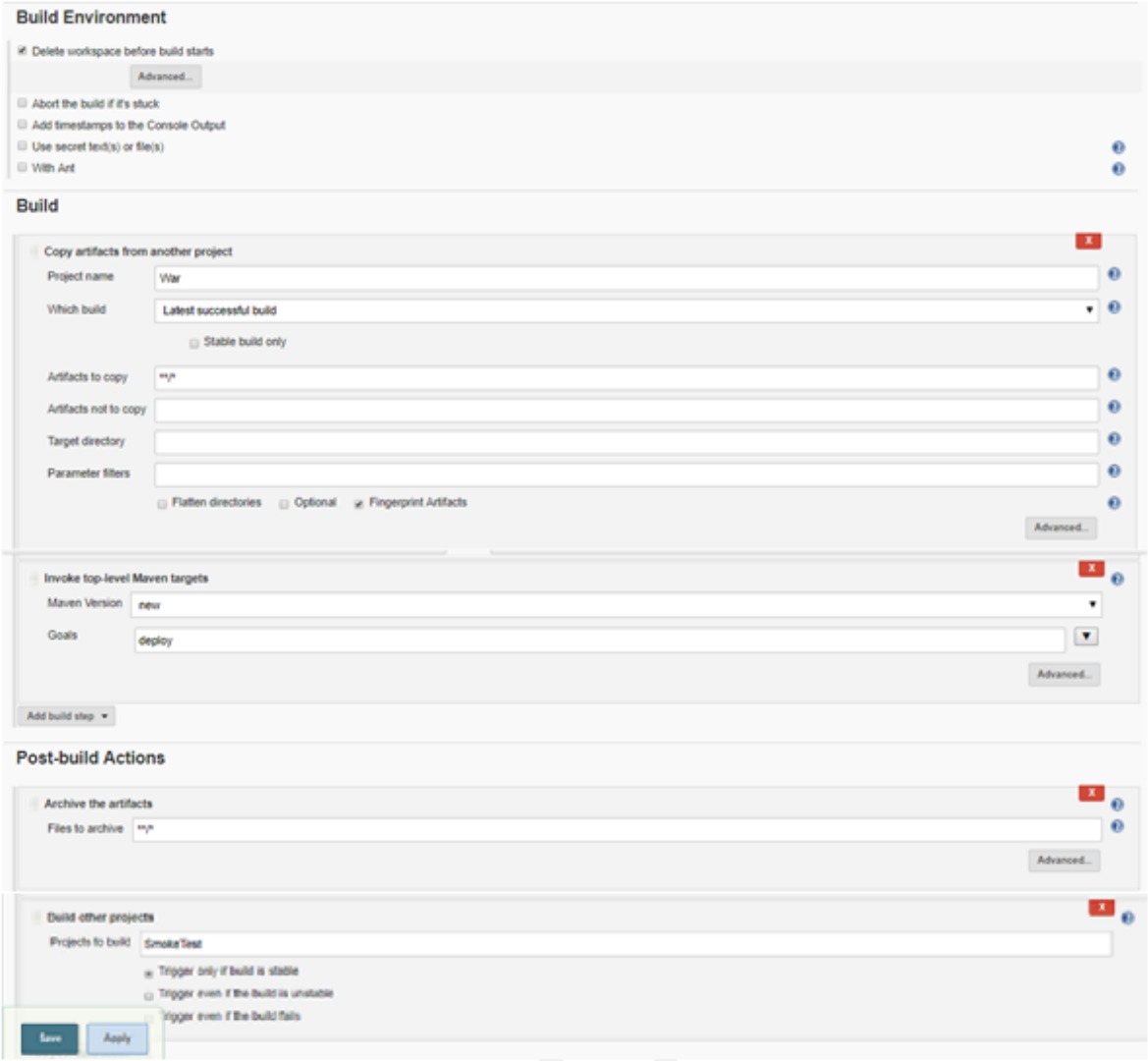
Advanced...

☐ Abort the build if it's stuck

☐ Add timestamps to the Console Output

☐ Use secret text(s) or file(s)

☐ With Ant



Step 8: Create below mentioned job – SmokeTest

General | Source Code Management | Build Triggers | Build Environment | Build | Post-build Actions

Description: smoke test

[Plain text] Preview

☑ Discard old builds

Strategy: Log Rotation

Days to keep builds: 5

if not empty, build records are only kept up to this number of days

Max # of builds to keep: 3

if not empty, only up to this number of build records are kept

Advanced...

☐ GitHub project
☐ Permission to Copy Artifact
☐ Promote builds when...
☐ This project is parameterized
☐ Throttle builds
☐ Disable this project
☐ Execute concurrent builds if necessary
☐ Restrict where this project can be run

Advanced...

Source Code Management

◉ None
○ Git
○ Subversion

Build Triggers

☐ Trigger builds remotely (e.g., from scripts)
☐ Build after other projects are built
☐ Build periodically
☐ Build when another project is promoted
☐ GitHub hook trigger for GITScm polling
☐ Poll SCM

Build Environment

☑ Delete workspace before build starts

Advanced...

☐ Abort the build if it's stuck
☐ Add timestamps to the Console Output
☐ Use secret text(s) or file(s)
☐ With Ant

Build

Copy artifacts from another project

Project name: War

Which build: Latest successful build

☐ Stable build only

Artifacts to copy: **/*

Artifacts not to copy:

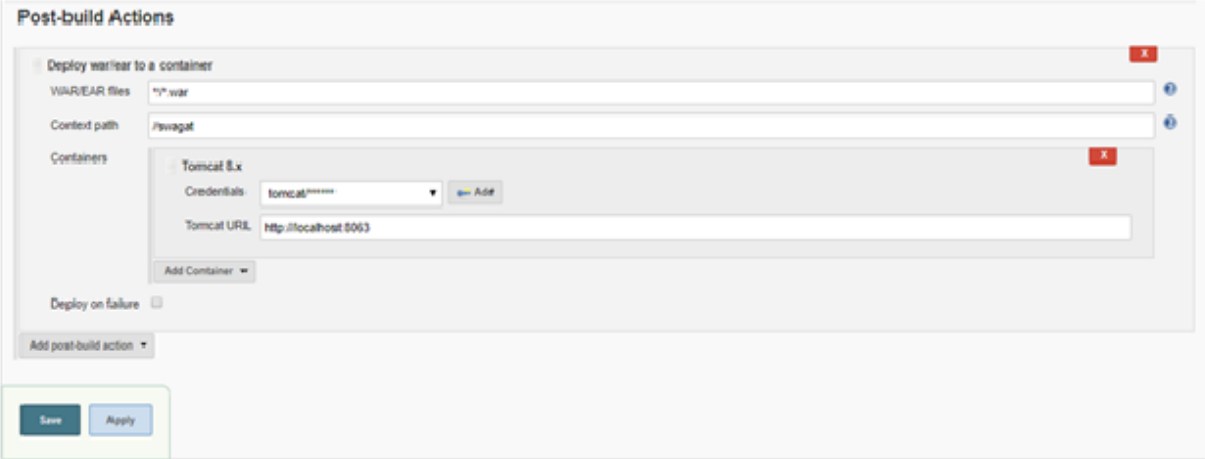
Target directory:

Parameter filters:

☐ Flatten directories ☐ Optional ☑ Fingerprint Artifacts

Advanced...

Add build step

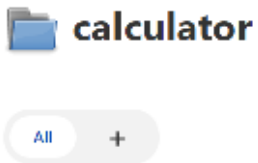


Summary: You learned main line CI pipeline creation.

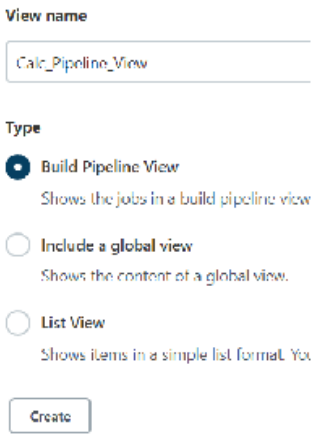
Exercise 11: Creating pipeline view in Jenkins

Objective: Understand creation of pipeline view in Jenkins

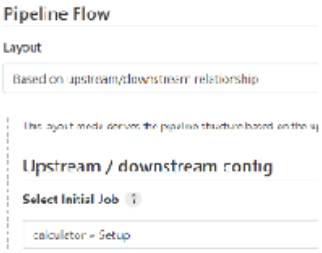
Step 1: Click on the '+' symbol under the Jenkins project folder as shown in the screenshot given below



Step 2: Provide the name for the pipeline in the viewname field and select the Build Pipeline View and click create as shown in the screenshot given below.



Step 3: Select calculator->Setup as the Select Initial Job under the Upstream/downstream config as shown in the screenshot given below and click ok.



Step 4: Execute the job from setup and you can see the pipeline flow as shown in the screenshot given below.

Summary: You learned to create pipeline view in Jenkins.