

Creating Jenkins Project to Build Multiple Projects with different java versions

- We will try to build spring petclinic and game of life
- spring pet clinic: [Refer Here](#)
 - jdk 17
 - maven
- Game of life [Refer Here](#)
 - jdk 8
 - maven

Tools in Jenkins

- Here we configure the tool locations
- For some of the tools jenkins also gives installation options
- Lets configure two different
 - maven versions
 - java versions
- The actual paths on the server are listed below

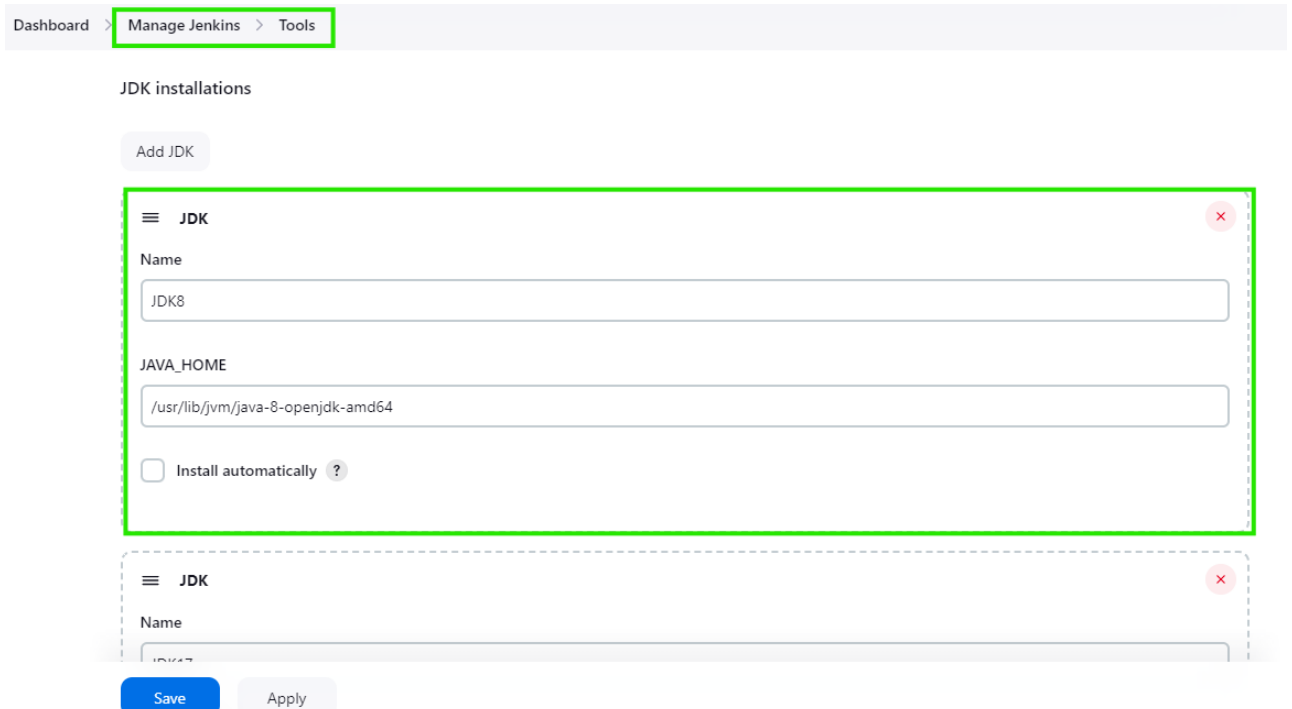
```
3.9.8 = /opt/maven/apache-maven-3.9.8
```

```
3.8.8 = /opt/maven/apache-maven-3.8.8/mave
```

```
jdk 8 = /usr/lib/jvm/java-8-openjdk-amd64
```

```
jdk 17 = /usr/lib/jvm/java-17-openjdk-amd64
```

- Navigate to Manage Jenkins => Tools



☰ **JDK** ✕

Name

JAVA_HOME

 Install automatically ?

Add JDK

Dashboard > Manage Jenkins > Tools

Maven installations

Add Maven

☰ **Maven** ✕

Name

MAVEN_HOME

 Install automatically ?

Add Maven

Save

Apply

Dashboard > Manage Jenkins > Tools

MAVEN_HOME

Install automatically ?

☰ Maven

Name

MAVEN_HOME

Install automatically ?

Add Maven

Save Apply

- Command to build the project `mvn clean package`
- Configuring game of life

Dashboard > gameoflife > Configuration

Configure

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

Discard old builds ?

GitHub project

This project is parameterized ?

Throttle builds ?

Execute concurrent builds if necessary ?

JDK

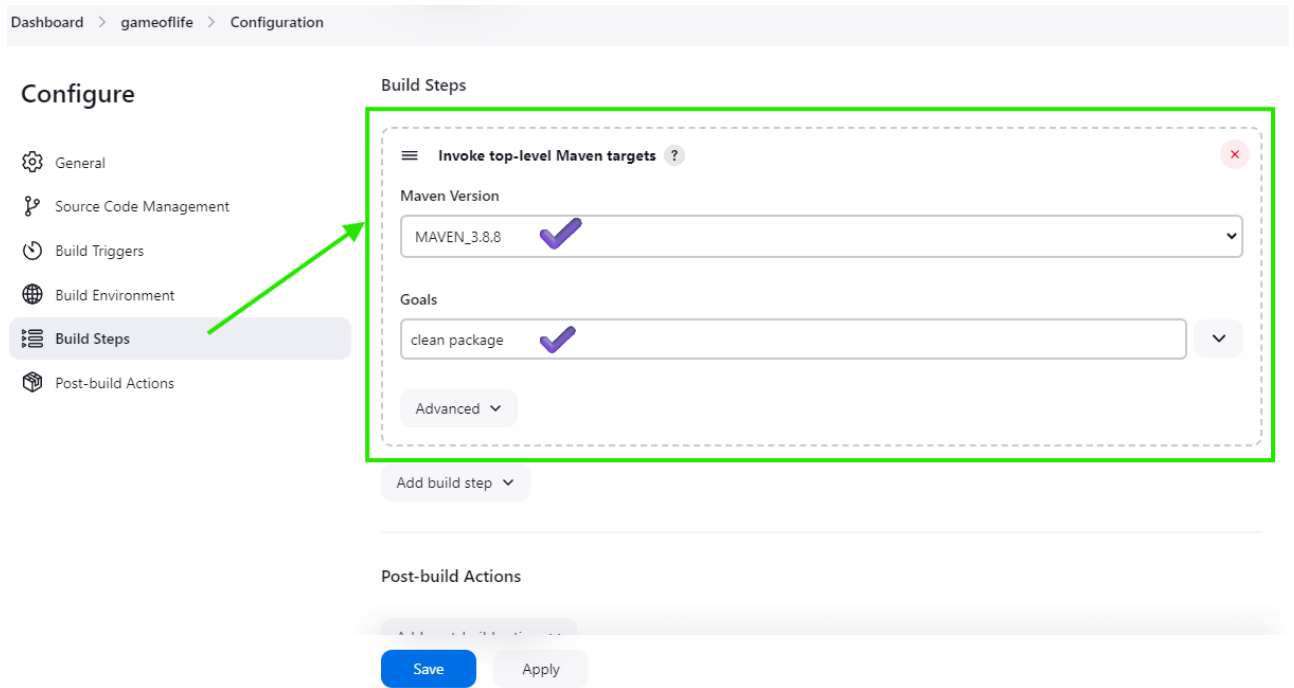
JDK to be used for this project

Advanced ▾

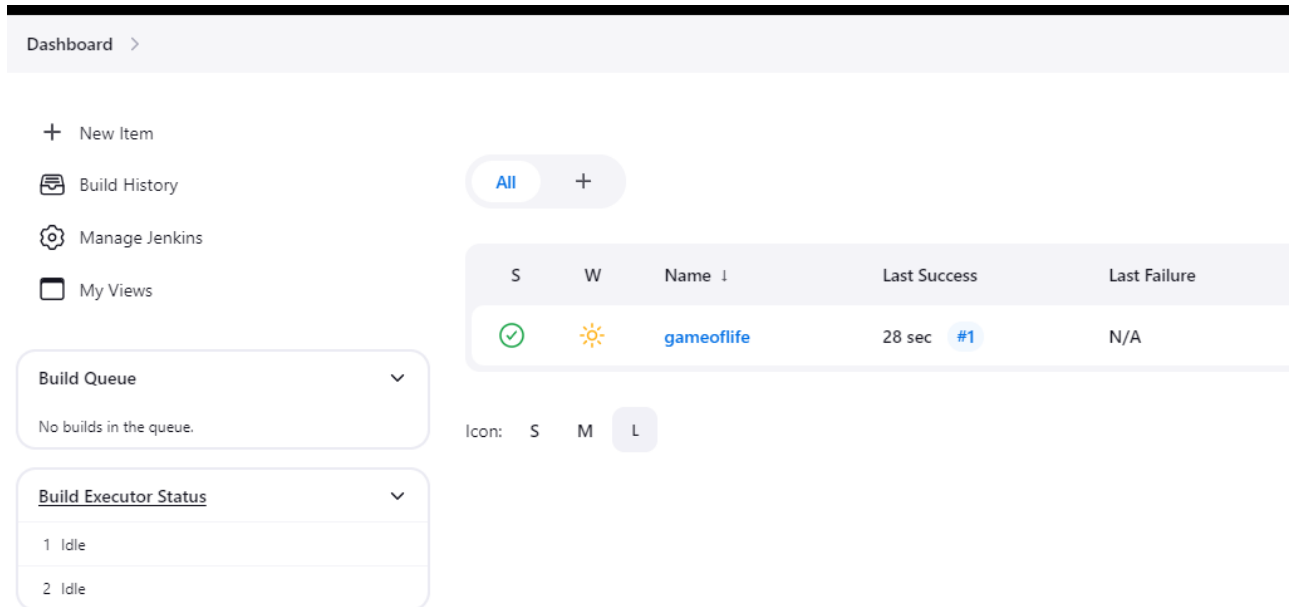
Source Code Management

None

Save Apply



- Build the project

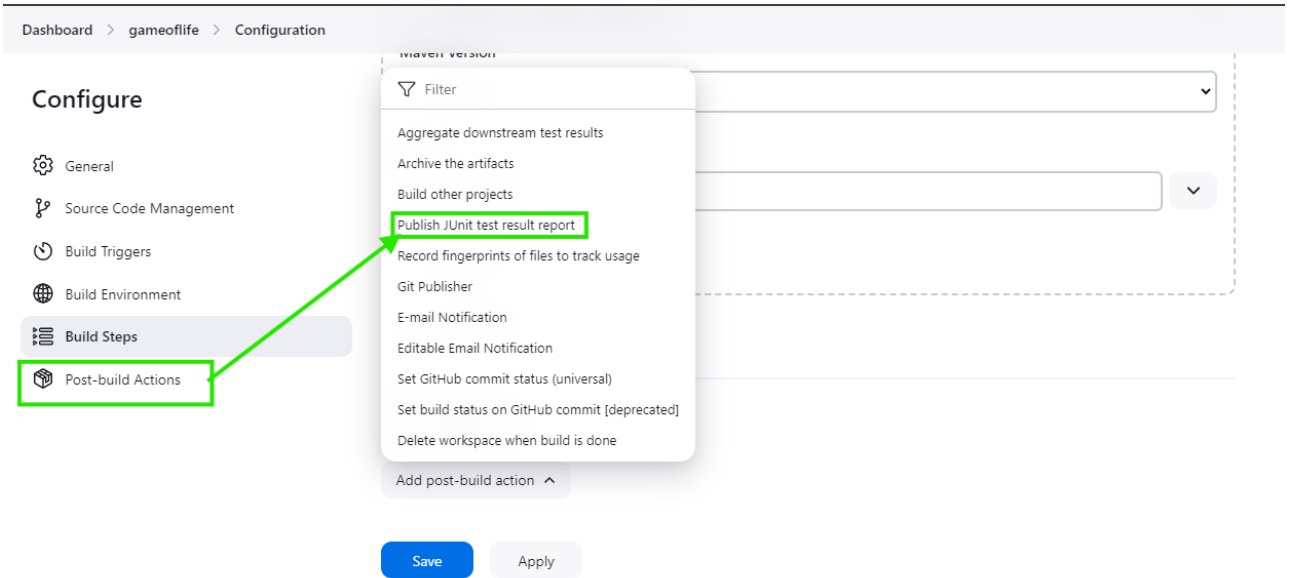


- Configure spring petclinic as discussed in the classroom. Build the project

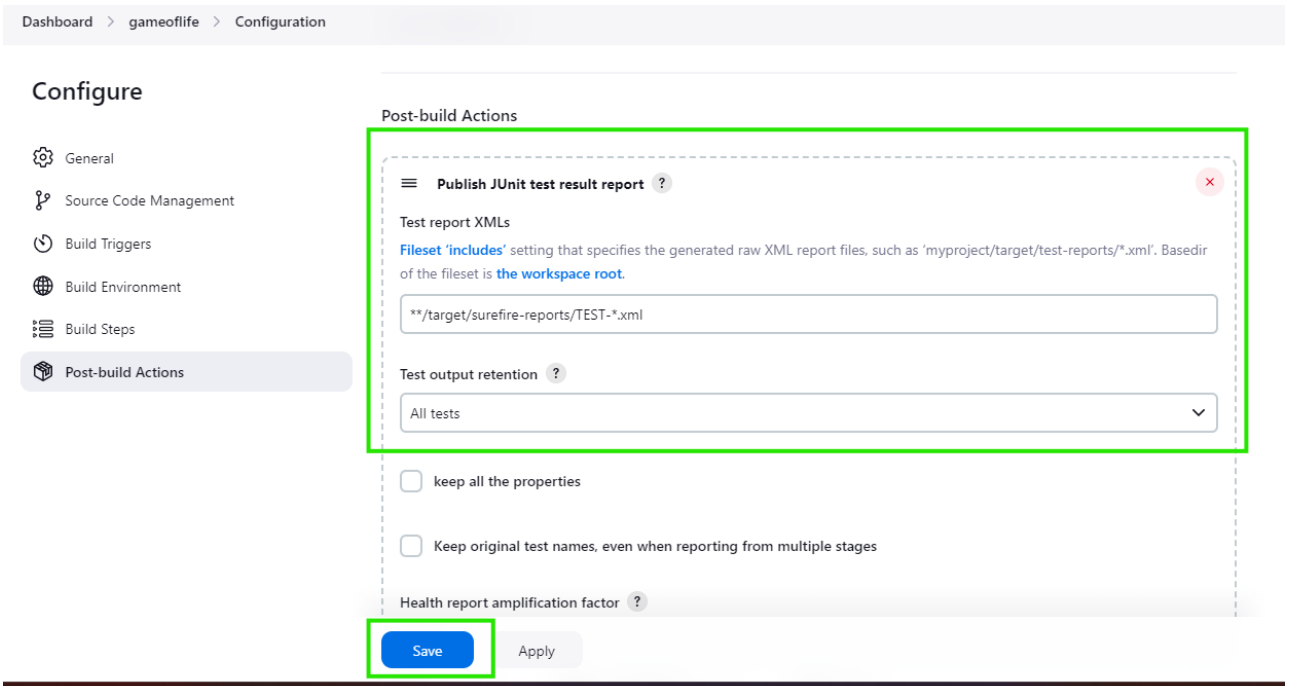
Show case the test results

- Jenkins by default can parse junit xml files

- Test results are processed post build, so lets configure a post build action



REST API Jenkins 2.462.1

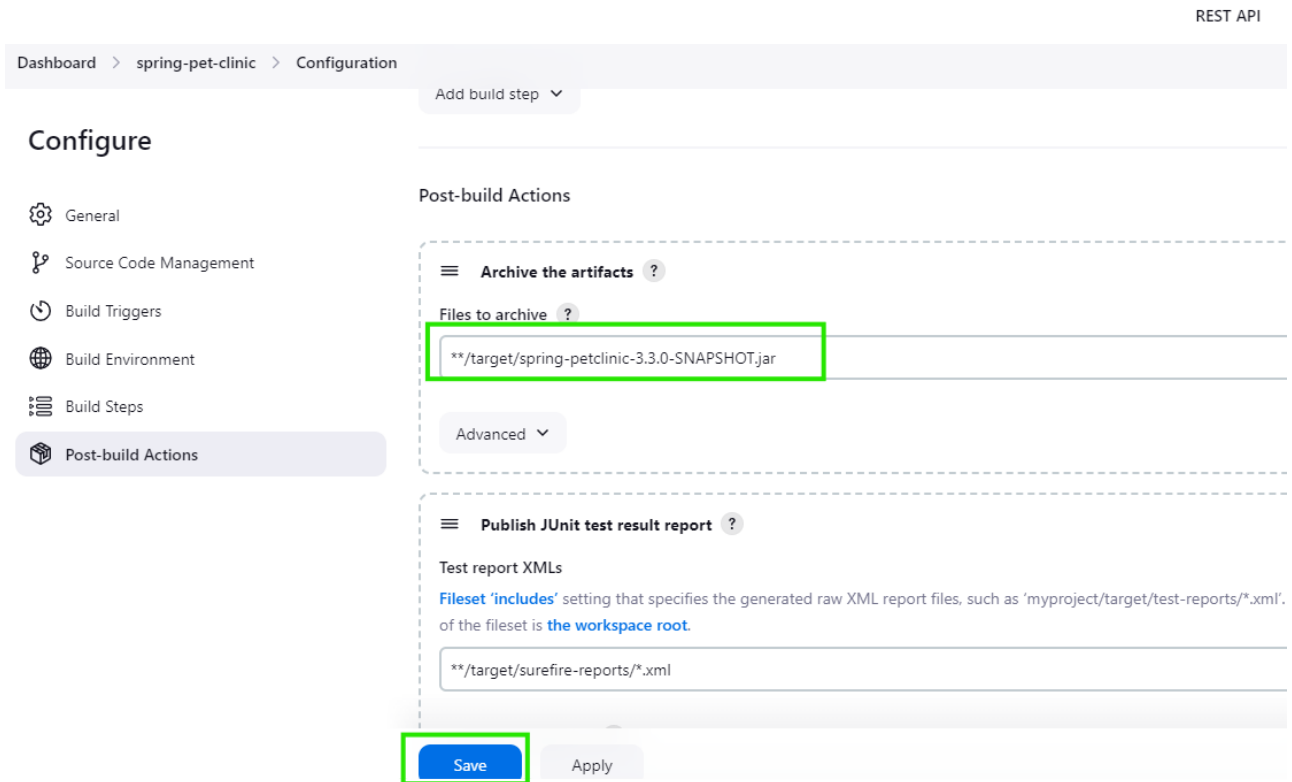
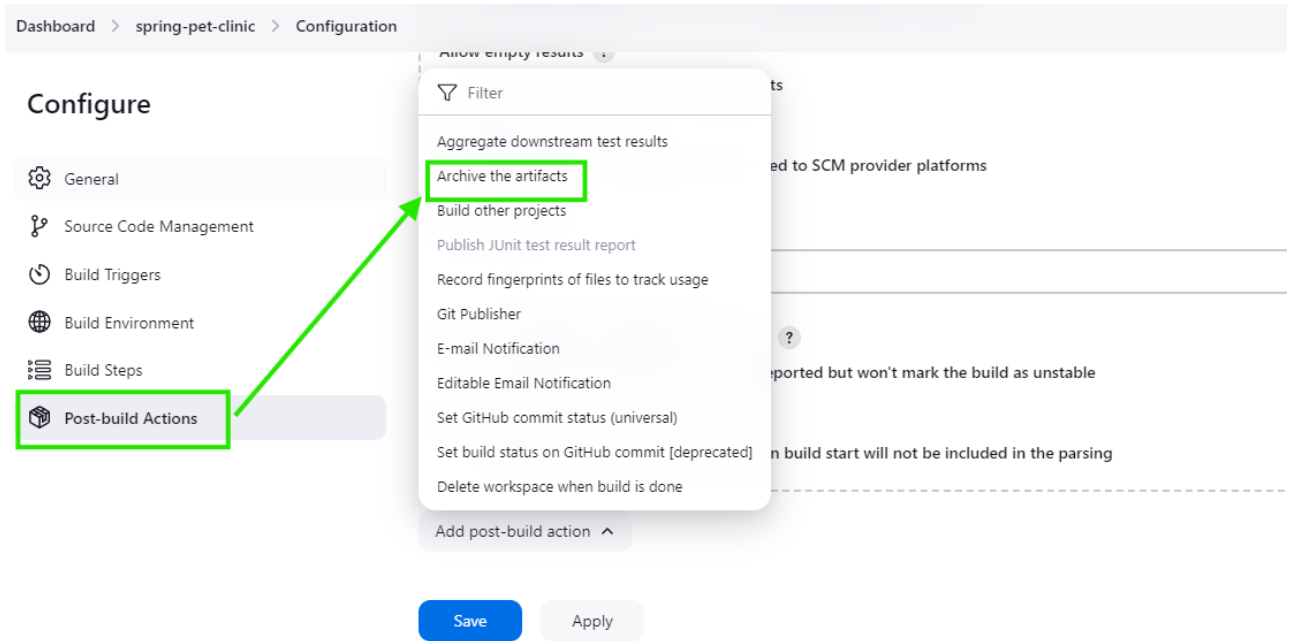


Package	Duration	Fail	(diff)	Skip	(diff)	Pass	(diff)
behavior	31 ms	0		1	+1	1	+1
com.wakaleo.gameoflife.domain	14 ms	0		0		49	+49
com.wakaleo.gameoflife.webtests.controllers	0.47 sec	0		0		7	+7

Archiving artifacts in Jenkins

- The purpose of this is to store artifact for later usage as it will be preserved in Jenkins

- The artifact is generally available for download.



When to build the Project (Triggers in Jenkins)

- Options in jenkins

Dashboard > gameoflife > Configuration

Configure

- General
- Source Code Management
- Build Triggers**
- Build Environment
- Build Steps
- Post-build Actions

Build Triggers

- Trigger builds remotely (e.g., from scripts) ?
- Build after other projects are built ?
- Build periodically ?
- GitHub hook trigger for GITScm polling ?
- Poll SCM ?

Build Environment

- Delete workspace before build starts
- Use secret text(s) or file(s) ?
- Add timestamps to the Console Output
- Inspect build log for published build scans
- Terminate a build if it's stuck
- With Ant ?

- Popular options
 - Poll SCM: This will trigger jenkins build whenever a new commit is pushed. We need to set how frequently jenkins should poll scm
 - Build Periodically: Here we specify the periodic time when the job has to be triggered
- For configuring times, jenkins uses cron syntax
- [Refer Here](#) for learning cron syntax