



5 must-try Maven plugins

Test automation academy

Maven™

Surefire plugin

- This plugin is used to run and report on tests.
- Great way to quickly This will compile your code, run your unit tests, and generate a report with the results. identify any issues with our code and make sure that changes don't break existing functionality

Pom.xml



```
<build>
  <plugins>
    <plugin>
      <groupId>org.apache.maven.plugins</groupId>
      <artifactId>maven-surefire-plugin</artifactId>
      <version>2.22.2</version>
      <configuration>
        <!-- Optional configuration settings -->
      </configuration>
    </plugin>
  </plugins>
</build>
```

Execution:

mvn test

This will compile your code, run your tests, and generate a report with the results.

Maven™

Failsafe plugin

- The Failsafe plugin in Maven is used to run integration tests and is like the Surefire plugin for unit tests.

Pom.xml

```
<build>
  <plugins>
    <plugin>
      <groupId>org.apache.maven.plugins</groupId>
      <artifactId>maven-failsafe-plugin</artifactId>
      <version>2.22.2</version>
      <executions>
        <execution>
          <goals>
            <goal>integration-test</goal>
            <goal>verify</goal>
          </goals>
        </execution>
      </executions>
    </plugin>
  </plugins>
</build>
```

Execution:

mvn verify

This will compile your code, run your integration tests, and generate a report with the results

Maven™

Jacoco plugin

- This plugin is used to generate test coverage reports.
- Provides a comprehensive overview of which parts of our code are covered by tests and which are not, helping us make informed decisions about where to focus our testing efforts

Pom.xml

```
<build>
  <plugins>
    <plugin>
      <groupId>org.jacoco</groupId>
      <artifactId>jacoco-maven-plugin</artifactId>
      <version>0.8.5</version>
      <executions>
        <execution>
          <goals>
            <goal>prepare-agent</goal>
            <goal>report</goal>
          </goals>
        </execution>
      </executions>
    </plugin>
  </plugins>
</build>
```

Execution:

mvn jacoco:report

Maven™

PMD plugin

- The PMD plugin in Maven is used to check your code for potential problems and violations of coding standards

Pom.xml



```
<build>
  <plugins>
    <plugin>
      <groupId>org.apache.maven.plugins</groupId>
      <artifactId>maven-pmd-plugin</artifactId>
      <version>3.13.0</version>
      <executions>
        <execution>
          <goals>
            <goal>check</goal>
          </goals>
        </execution>
      </executions>
    </plugin>
  </plugins>
</build>
```

Execution:

mvn pmd:check

This will run the PMD check on your code and generate a report with any violations found.

Maven™

Checkstyle plugin

- This plugin is used to enforce coding conventions and best practices. It's a great way to ensure that our code is consistent and readable, making it easier for other developers to understand and maintain.

Pom.xml

```
<build>
  <plugins>
    <plugin>
      <groupId>org.apache.maven.plugins</groupId>
      <artifactId>maven-checkstyle-
plugin</artifactId>
      <version>3.1.1</version>
      <executions>
        <execution>
          <goals>
            <goal>check</goal>
          </goals>
        </execution>
      </executions>
    </plugin>
  </plugins>
</build>
```

Execution:

mvn checkstyle:check

This will run the Checkstyle check on your code and generate a report with any violations found