**Configuration File**

**Plug-in for Jacoco**

<dependency>

<groupId>org.jacoco</groupId>

<artifactId>jacoco-maven-plugin</artifactId>

<version>0.7.7.201606060606</version>

</dependency>

**This dependency was added in the dependencies tag in the pom.xml in order to run the jacoco tests.**

<plugin>

<groupId>org.jacoco</groupId>

<artifactId>jacoco-maven-plugin</artifactId>

<version>0.7.7.201606060606</version>

<configuration>

<destFile>${basedir}/target/coverage-reports/jacoco-unit.exec</destFile>

<dataFile>${basedir}/target/coverage-reports/jacoco-unit.exec</dataFile>

</configuration>

<executions>

<execution>

<id>jacoco-initialize</id>

<goals>

<goal>prepare-agent</goal>

</goals>

</execution>

<execution>

<id>jacoco-site</id>

<phase>test</phase>

<goals>

<goal>report</goal>

</goals>

</execution>

</executions>

</plugin>

**This plugin was added in the pom.xml file for the functioning of the jacoco testing. This was added in the plugins tags**.

**Plug-in for pi test**

<plugin>

<groupId>org.pitest</groupId>

<artifactId>pitest-maven</artifactId>

<version>1.4.8</version>

<configuration>

<targetClasses>

<param>org.apache.commons.collections4\*</param>

</targetClasses>

<targetTests>

<param>org.apache.commons.collections4\*</param>

</targetTests>

</configuration>

<executions>

<execution>

<id>pit-report</id>

<phase>test</phase>

<goals>

<goal>mutationCoverage</goal>

</goals>

</execution>

</executions>

</plugin>

**This plugin was added in plugins tags for the pi test. This worked well and gave the results.**