

## 1.pom.xml

```
<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/xsd/maven-4.0.0.xsd">

    <modelVersion>4.0.0</modelVersion>

    <groupId>com.example</groupId>
    <artifactId>DISPLAYRESULT_MAVEN</artifactId>
    <version>1.0-SNAPSHOT</version>

    <name>Student Result Application</name>

    <properties>
        <maven.compiler.source>17</maven.compiler.source>
        <maven.compiler.target>17</maven.compiler.target>
        <project.build.sourceEncoding>UTF-8</project.build.sourceEncoding>
    </properties>

    <dependencies>

        <dependency>
            <groupId>org.junit.jupiter</groupId>
            <artifactId>junit-jupiter</artifactId>
            <version>5.10.0</version>
            <scope>test</scope>
        </dependency>
    </dependencies>

    <build>
        <plugins>

            <plugin>
                <groupId>org.apache.maven.plugins</groupId>
                <artifactId>maven-compiler-plugin</artifactId>
                <version>3.11.0</version>
            </plugin>

            <plugin>
                <groupId>org.apache.maven.plugins</groupId>
                <artifactId>maven-surefire-plugin</artifactId>
                <version>3.1.2</version>
            </plugin>
        </plugins>
    </build>

```

```
</project>
```

## 2. Create StudentResult.java

```
package com.example;

public class StudentResult {

    public int calculateTotal(int s1, int s2, int s3, int s4, int s5) {
        return s1 + s2 + s3 + s4 + s5;
    }

    public double calculateAverage(int total) {
        return total / 5.0;
    }

    public String calculateGrade(double average) {
        if (average >= 90)
            return "A+";
        else if (average >= 75)
            return "A";
        else if (average >= 60)
            return "B";
        else if (average >= 50)
            return "C";
        else
            return "Fail";
    }
}
```

## 3. Create StudentResultTest.java for JUNIT testing

```
package com.example;

import org.junit.jupiter.api.Test;
import static org.junit.jupiter.api.Assertions.*;

class StudentResultTest {

    StudentResult sr = new StudentResult();

    @Test
    void testCalculateTotal() {
        int total = sr.calculateTotal(80, 85, 90, 75, 70);
        assertEquals(400, total);
    }
}
```

```
@Test
void testCalculateAverage() {
    double avg = sr.calculateAverage(400);
    assertEquals(80.0, avg);
}

@Test
void testCalculateGradeAPlus() {
    assertEquals("A+", sr.calculateGrade(95));
}

@Test
void testCalculateGradeB() {
    assertEquals("B", sr.calculateGrade(65));
}

@Test
void testCalculateGradeFail() {
    assertEquals("Fail", sr.calculateGrade(40));
}
}
```