**Bonus Assignment**

1. **What is Junit?**

JUnit is an open source Unit Testing Framework used by developers to write and run repeatable tests in Java and accelerate programming speed and increase the quality of code. JUnit Framework can be easily integrated with Eclipse, Maven etc.

1. **When we can use it and how?**

Instead of writing more tests which makes us more productive, tests should be done as soon as possible at the code unit level. To make testing easier and faster at code until eve we can use Junit. To use Junit, we should follow the below steps:

1. Set up JUnit
2. Writing the Test cases
3. Run JUnit
4. **Give an example of software that could be tested using Junit?**

**A simple Hello World Program:**

import org.junit.Test;

import static org.junit.Assert.assertEquals;

public class TestJunit {

String message = "Hello World";

MessageUtil messageUtil = new MessageUtil(message);

@Test

public void testPrintMessage() {

assertEquals(message,messageUtil.printMessage());

}

}

1. **Give an example of the output result of using Junit in testing software?**

The result of the above test case will be:

/\*

\* This class prints the given message on console.

\*/

public class MessageUtil {

private String message;

//Constructor

//@param message to be printed

public MessageUtil(String message){

this.message = message;

}

// prints the message

public String printMessage(){

System.out.println(message);

return message;

}

}

Create a test class **TestJunit** in the project.

import org.junit.Test;

import static org.junit.Assert.assertEquals;

public class TestJunit {

String message = "Hello World";

MessageUtil messageUtil = new MessageUtil(message);

@Test

public void testPrintMessage() {

assertEquals(message,messageUtil.printMessage());

}

}

****