JUnit - Suite Test

Test suite is used to bundle a few unit test cases and run them together. In JUnit, both **@RunWith** and **@Suite** annotations are used to run the suite tests. This chapter takes an example having two test classes, **TestJunit1** & **TestJunit2**, that run together using Test Suite.

Create a Class

Create a java class to be tested, say, **MessageUtil.java** in C:\>JUNIT_WORKSPACE.

```java
/*
* 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;
   }

   // add "Hi!" to the message
   public String salutationMessage(){
      message = "Hi!" + message;
      System.out.println(message);
      return message;
   }
}
```

Create Test Case Classes

Create a java class file named **TestJunit1.java** in C:\>JUNIT_WORKSPACE.

```java
import org.junit.Test;
import org.junit.Ignore;
import static org.junit.Assert.assertEquals;

public class TestJunit1 {

   String message = "Robert";
   MessageUtil messageUtil = new MessageUtil(message);

   @Test
   public void testPrintMessage() {
      System.out.println("Inside testPrintMessage()");
      assertEquals(message, messageUtil.printMessage());
   }
}
```

Create a java class file named **TestJunit2.java** in C:\>JUNIT_WORKSPACE.

```java
import org.junit.Test;
import org.junit.Ignore;
import static org.junit.Assert.assertEquals;

public class TestJunit2 {

   String message = "Robert";
   MessageUtil messageUtil = new MessageUtil(message);

   @Test
   public void testSalutationMessage() {
      System.out.println("Inside testSalutationMessage()");
      message = "Hi!" + "Robert";
      assertEquals(message,messageUtil.salutationMessage());
   }
}
```

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Create Test Suite Class

Create a java class.

Attach @RunWith(Suite.class) Annotation with the class.

Add reference to JUnit test classes using @Suite.SuiteClasses annotation.

Create a java class file named **TestSuite.java** in C:\>JUNIT_WORKSPACE to execute test case(s).

```java
import org.junit.runner.RunWith;
import org.junit.runners.Suite;

@RunWith(Suite.class)

@Suite.SuiteClasses({
   TestJunit1.class,
   TestJunit2.class
})

public class JunitTestSuite {
}
```

Create Test Runner Class

Create a java class file named **TestRunner.java** in C:\>JUNIT_WORKSPACE to execute test case(s).

```java
import org.junit.runner.JUnitCore;
import org.junit.runner.Result;
import org.junit.runner.notification.Failure;

public class TestRunner {
   public static void main(String[] args) {
      Result result = JUnitCore.runClasses(JunitTestSuite.class);

      for (Failure failure : result.getFailures()) {
         System.out.println(failure.toString());
      }

      System.out.println(result.wasSuccessful());
   }
}
```

Compile all the java classes using javac.

   C:\JUNIT_WORKSPACE>javac MessageUtil.java TestJunit1.java
   TestJunit2.java JunitTestSuite.java TestRunner.java

Now run the Test Runner, which will run the test case defined in the provided Test Case class.

   C:\JUNIT_WORKSPACE>java TestRunner

Verify the output.

   Inside testPrintMessage()
   Robert
   Inside testSalutationMessage()
   Hi Robert
   true