

# JUnit - Executing Tests

The test cases are executed using **JUnitCore** class. JUnitCore is a facade for running tests. It supports running JUnit 4 tests, JUnit 3.8.x tests, and mixtures. To run tests from the command line, run `java org.junit.runner.JUnitCore <TestClass>`. For one-shot test runs, use the static method `runClasses(Class[])`.

Following is the declaration for **org.junit.runner.JUnitCore** class:

```
public class JUnitCore extends java.lang.Object
```

Here we will see how to execute the tests with the help of JUnitCore.

## Create a Class

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

```
/*
 * 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 Test Case Class

Create a java test class, say, TestJUnit.java.

Add a test method testPrintMessage() to your test class.

Add an Annotation @Test to the method testPrintMessage().

Implement the test condition and check the condition using assertEquals API of JUnit.

Create a java class file named **TestJUnit.java** in C:\>JUNIT\_WORKSPACE.

```
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());
    }
}
```

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## Create Test Runner Class

Now create a java class file named **TestRunner.java** in C:\>JUNIT\_WORKSPACE to execute test case(s). It imports the JUnitCore class and uses the runClasses() method that takes the test class name as its parameter.

```
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(TestJUnit.class);

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

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

Compile the Test case and Test Runner classes using javac.

```
C:\JUNIT_WORKSPACE>javac MessageUtil.java TestJunit.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.

```
Hello World  
true
```