

### Example Of Annotations For Junit 4:

```
import static org.junit.Assert.assertEquals;
import static org.junit.Assert.assertFalse;
import java.util.ArrayList;
import org.junit.After;
import org.junit.AfterClass;
import org.junit.Before;
import org.junit.BeforeClass;
import org.junit.Ignore;
import org.junit.Test;
public class test {
    private ArrayList<String> list;
    @BeforeClass
    public static void m1() {
        System.out.println("Using @BeforeClass , executed before all test cases ");
    }
    @Before
    public void m2() {
        list = new ArrayList<String>();
        System.out.println("Using @Before annotations ,executed before each test cases ");
    }
    @AfterClass
    public static void m3() {
        System.out.println("Using @AfterClass ,executed after all test cases");
    }
    @After
    public void m4() {
        list.clear();
        System.out.println("Using @After ,executed after each test cases");
    }
    @Test
    public void m5() {
        list.add("test");
        assertFalse(list.isEmpty());
        assertEquals(1, list.size());
    }
    @Ignore
    public void m6() {
        System.out.println("Using @Ignore , this execution is ignored");
    }
    @Test(timeout = 10)
    public void m7() {
```

```

System.out.println("Using @Test(timeout),it can be used to enforce timeout in
JUnit4 test case");
}
}

```

### Example Of Annotations For Junit 5:

```

import static org.junit.jupiter.api.Assertions.*;
import java.util.ArrayList;
import org.junit.jupiter.api.AfterAll;
import org.junit.jupiter.api.AfterEach;
import org.junit.jupiter.api.BeforeEach;
import org.junit.jupiter.api.BeforeAll;
import org.junit.jupiter.api.Disabled;
import org.junit.jupiter.api.Test;
public class test {
private ArrayList<String> list;
@BeforeAll
public static void m1() {
System.out.println("Using @BeforeAll , executed before all test cases ");

}
@BeforeEach
public void m2() {
list = new ArrayList<String>();
System.out.println("Using @BeforeEach annotations ,executed before each test cases
");
}
@AfterAll
public static void m3() {
System.out.println("Using @AfterClass ,executed after all test cases");

}
@AfterEach
public void m4() {
list.clear();
System.out.println("Using @After ,executed after each test cases");

}
@Test
public void m5() {
list.add("test");
assertFalse(list.isEmpty());
assertEquals(1, list.size());
}
@Disabled
@Test

```

```

public void m6() {
    System.out.println("Using @Disable , this execution is ignored");

}
@Test
@Timeout(value = 20, unit = NANOSECONDS)
public void m6(){
    for(int i=0;i<1000;i++){
        System.out.println("Time Out After "+i);
    }
}

```

#### Example Of Assert Junit 4:

```

import static org.junit.Assert.*;
import org.junit.Test;

public class JunitAssertionTest {

    @Test
    public void testAssert(){

        //Variable declaration
        String string1="Junit";
        String string2="Junit";
        String string3="test";
        String string4="test";
        String string5=null;
        int variable1=1;
        int variable2=2;
        int[] airethematicArrary1 = { 1, 2, 3 };
        int[] airethematicArrary2 = { 1, 2, 3 };

        //Assert statements
        assertEquals(string1,string2);
        assertSame(string3, string4);
        assertNotSame(string1, string3);
        assertNotNull(string1);
        assertNull(string5);
        assertTrue(variable1<variable2);
        assertEquals(airethematicArrary1, airethematicArrary2);

    }
}

```

## Example of Test Suite in Junit 4:

### TestJUnit1.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());
    }
}
```

### TestJUnit2.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 = "Hello!" + "Robert";
        assertEquals(message, messageUtil.salutationMessage());
    }
}
```

### JUnitTest.java

```
import org.junit.runner.RunWith;
import org.junit.runners.Suite;
import org.junit.runners.JUnit4;

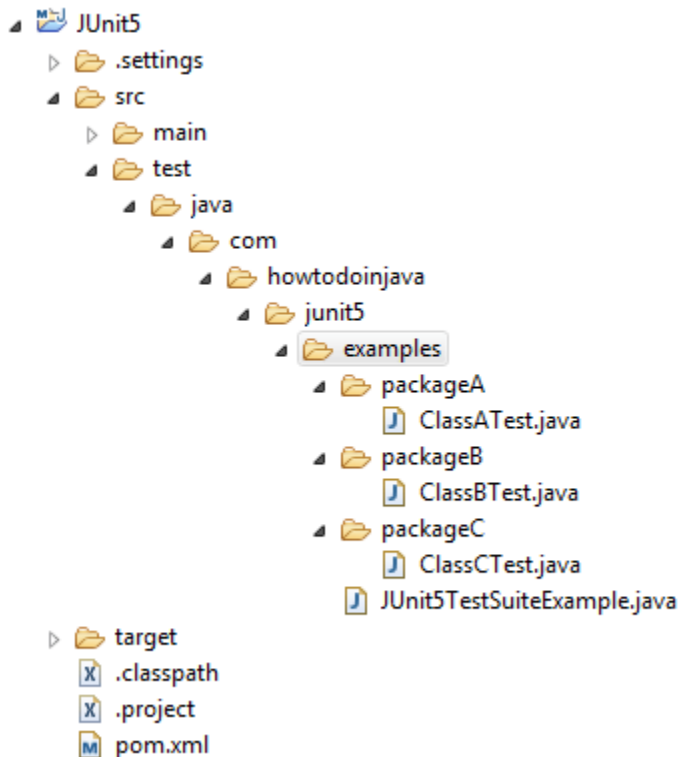
@RunWith(Suite.class)
```

```

@Suite.SuiteClasses({
    TestJUnit2.class,
    TestJUnit1.class,
})
public class JunitTest {
    //placeholder for other test classes
}

```

### Example of Test Suite in Junit 5:



### JUnit5TestSuiteExample.java

```

import org.junit.platform.suite.api.IncludeTags;
import org.junit.platform.suite.api.SelectPackages;
import org.junit.platform.suite.api.Suite;
@SelectPackages({"com.howtodoinjava.junit5.examples.packageA"
                , "com.howtodoinjava.junit5.examples.packageB"})
@SelectClasses( ClassATest.class )
@Suite
public class JUnit5TestSuiteExample {
}

```