Java Runtime Environment Conditions - @DisabledOnJre and @EnabledOnJre

This lesson demonstrates how to disable or enable test methods or a complete test class using JRE level conditions.

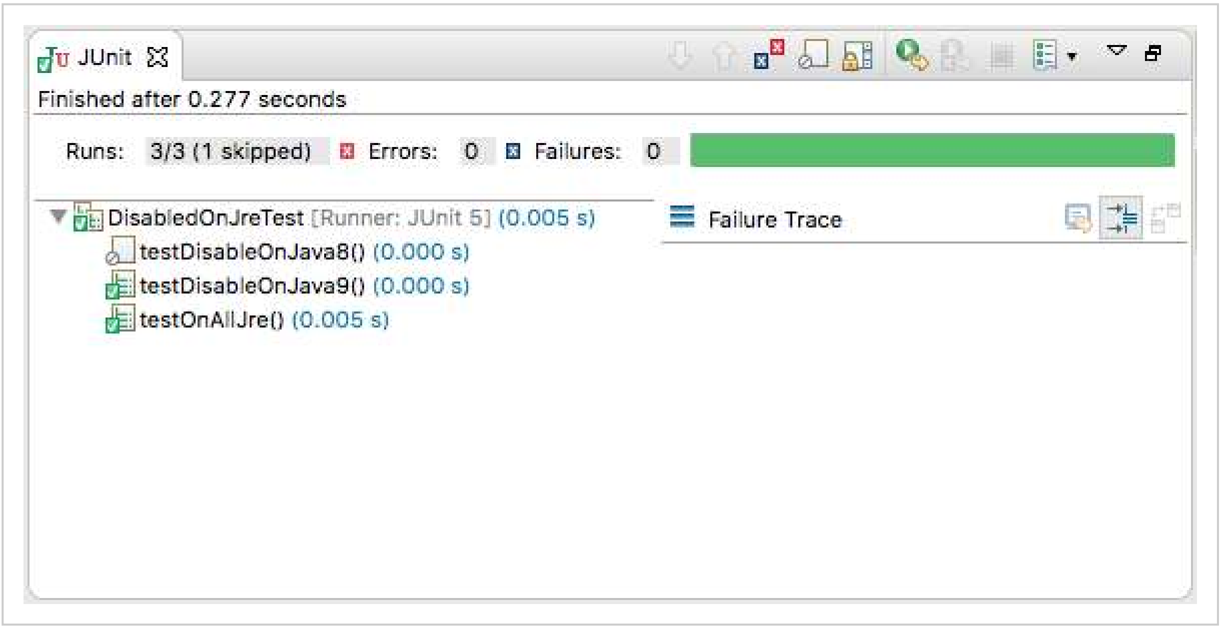
@DisabledOnJre and @EnabledOnJre

Junit 5 helps us to disable or enable test cases using various conditions. JUnit Jupiter API provides annotations in `org.junit.jupiter.api.condition` package to enable/disable tests based on a certain condition. The annotations provided by API can be applied to test methods as well as the class itself. The two annotations which are applied to disable/enable tests based on the particular version of the Java Runtime Environment (JRE) are - `@DisabledOnJre` and `@EnabledOnJre`. Let's take a look at a demo.

DisabledOnJreTest.java

```
package com.hubberspot.junit5.disabled;

import static org.junit.jupiter.api.Assertions.assertFalse;
import static org.junit.jupiter.api.Assertions.assertTrue;

import org.junit.jupiter.api.Test;
import org.junit.jupiter.api.condition.DisabledOnJre;
import org.junit.jupiter.api.condition.JRE;

public class DisabledOnJreTest {

    @Test
    void testOnAllJre() {
        assertTrue(3 > 0);
    }

    @DisabledOnJre(JRE.JAVA_8)
    @Test
    void testDisableOnJava8() {
```

```
    void testDisableOnJava8() {
        assertFalse(0 > 4);
    }

    @DisabledOnJre(JRE.JAVA_9)
    @Test
    void testDisableOnJava9() {
        assertFalse(10 > 40);
    }
}
```



```
JUnit
Finished after 0.277 seconds

Runs: 3/3 (1 skipped)   Errors: 0   Failures: 0

DisabledOnJreTest [Runner: JUnit 5] (0.005 s)
    testDisableOnJava8() (0.000 s)
    testDisableOnJava9() (0.000 s)
    testOnAllJre() (0.005 s)

Failure Trace
```

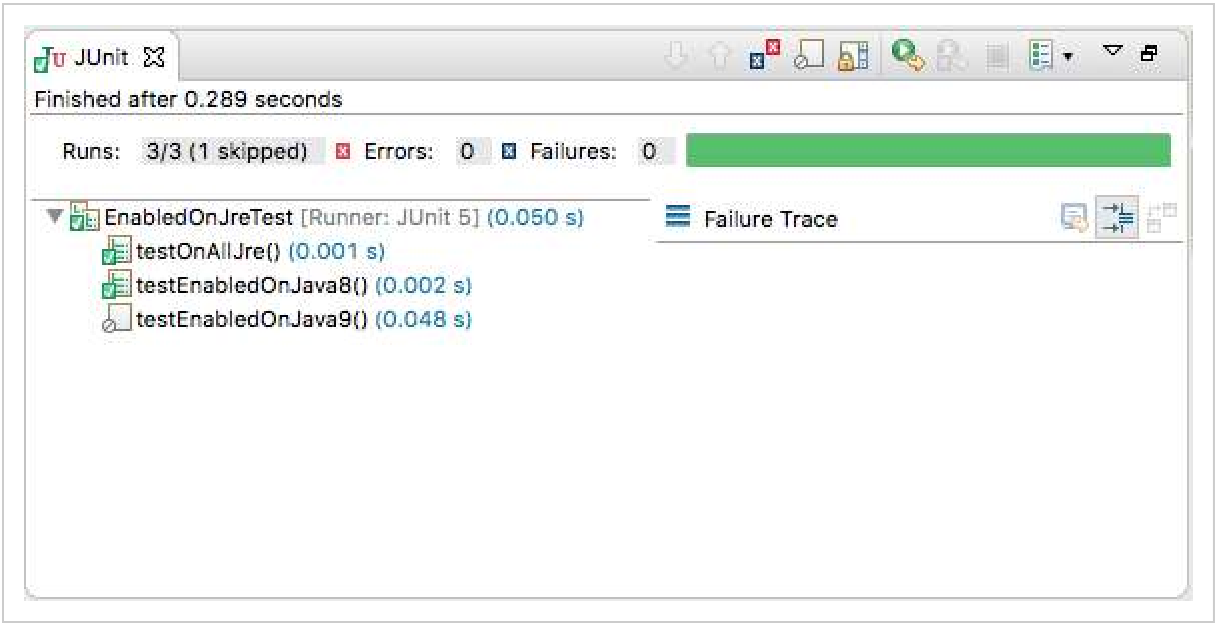
Above test program has 3 test methods and `@DisabledOnJre` is applied on 2 test methods as.

1. `testDisableOnJava8()` - Here, `@DisabledOnJre` annotation takes in value as - `JRE.JAVA_8`. It makes the test method skip to execute on Java 8 runtime environment. It will not skip on other Java runtime environments.
2. `testDisableOnJava9()` - Here, `@DisabledOnJre` annotation takes in value as - `JRE.JAVA_9`. It makes the test method skip to execute on Java 9 runtime environment. It will not skip on other Java runtime environments.

The above test methods are executed on the `Java 8` runtime environment. Thus, the output shows that 1 test method marked as, `@DisabledOnJre(JRE.JAVA_8)` is skipped for execution.

EnabledOnJreTest.java

```
package com.hubberspot.junit5.disabled;

import static org.junit.jupiter.api.Assertions.assertFalse;
import static org.junit.jupiter.api.Assertions.assertTrue;

import org.junit.jupiter.api.Test;
import org.junit.jupiter.api.condition.EnabledOnJre;
import org.junit.jupiter.api.condition.JRE;


public class EnabledOnJreTest {

          @Test
    void testOnAllJre() {
        assertTrue(3 > 0);
    }

    @EnabledOnJre(JRE.JAVA_8)
    @Test
    void testEnabledOnJava8() {
        assertFalse(0 > 4);
    }

    @EnabledOnJre(JRE.JAVA_9)
    @Test
    void testEnabledOnJava9() {
        assertFalse(10 > 40);
    }
}
```



```
JUnit
Finished after 0.289 seconds
Runs: 3/3 (1 skipped)   Errors: 0   Failures: 0
EnabledOnJreTest [Runner: JUnit 5] (0.050 s)
    testOnAllJre() (0.001 s)
    testEnabledOnJava8() (0.002 s)
    testEnabledOnJava9() (0.048 s)
Failure Trace
```

Output of tests

Above test program has 3 test methods and `@EnabledOnJre` annotation is applied on 2 test methods as.

1. `testEnabledOnJava8()` - Here, `@EnabledOnJre` annotation takes in value as - `JRE.JAVA_8`. It makes the test method enabled to execute only on Java 8 runtime environment. It will get skipped on other Java runtime environments.
2. `testEnabledOnJava9()` - Here, `@EnabledOnJre` annotation takes in value as - `JRE.JAVA_8`. It makes the test method enabled to execute only on Java 9 runtime environment. It will get skipped on other Java runtime

environments.

The above test methods are executed on `Java 8` runtime environment. Thus, the output shows that 1 test method marked as, `@EnabledOnJre(JRE.JAVA_9)` is skipped for execution. It will execute when tests are run on Java 9 runtime environment.