

Advance Software Engineering

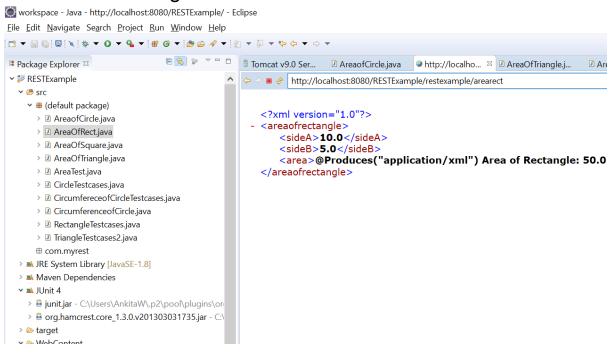
Assignment 8

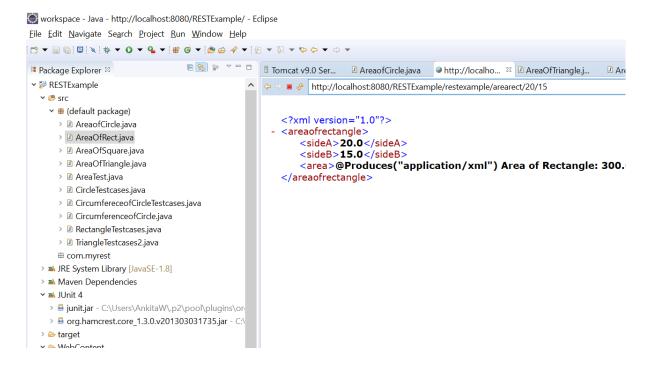
- Ankita Wankhede 16233344

REST

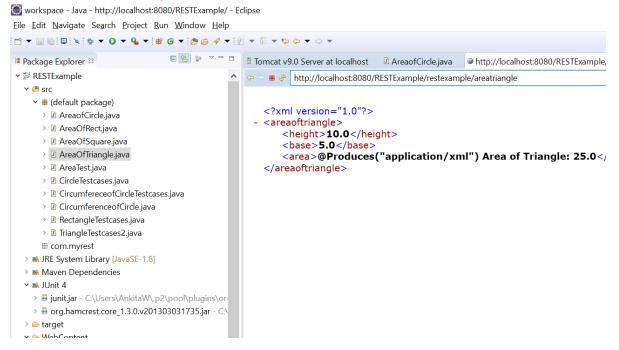
I have created RESTful Java application for following:

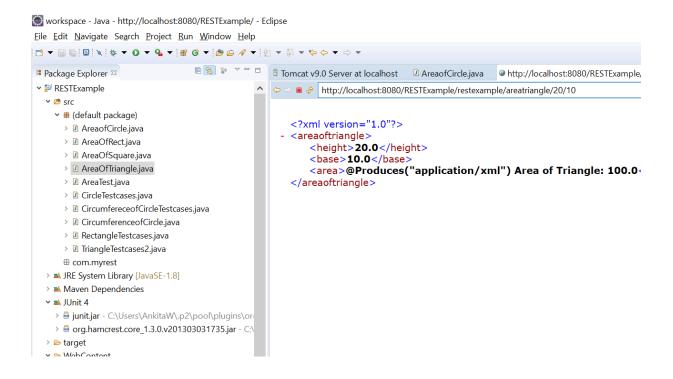
1. Area of Rectangle



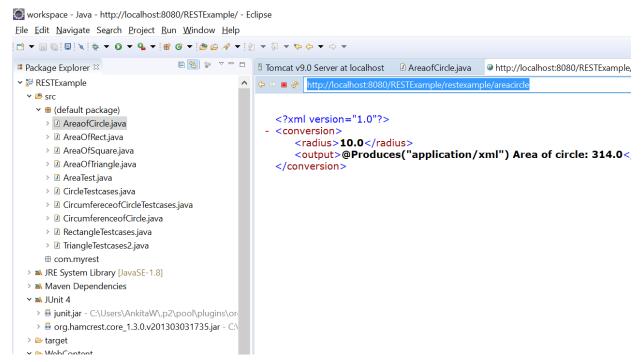


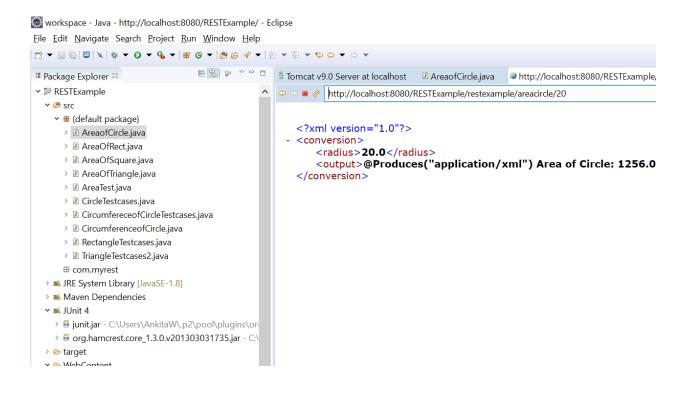
2. Area of Triangle



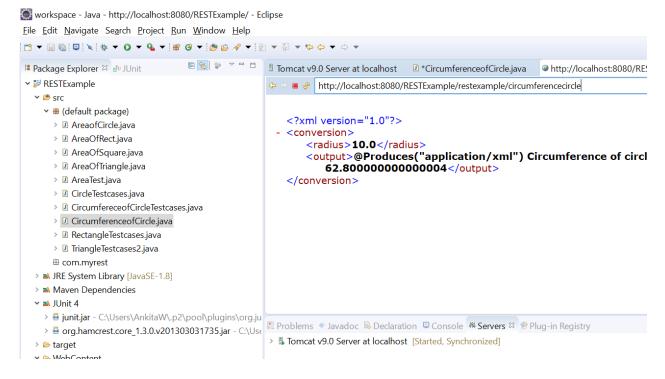


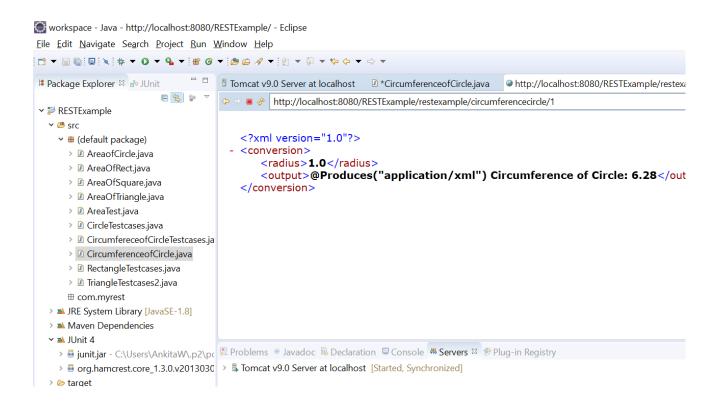
3. Area of Circle





4. Circumference of Circle





Unit Test cases by using Junit

1. Test Case - Area of Rectangle

```
🍥 workspace - Java - RESTExample/src/RectangleTestcases.java - Eclipse
<u>File Edit Source Refactor Navigate Search Project Run Window Help</u>
□ □ ● http://loca... ② Circumferen... ② AreaTest.java ② TriangleTes... ② Circumferec..
Package Explorer dv JUnit ⋈
                     1
Finished after 0.018 seconds
                                                   3⊕import static org.junit.Assert.*;
 Runs: 2/2 Errors: 0 Failures: 0
                                                   7 public class RectangleTestcases {

▼ Bar RectangleTestcases [Runner: JUnit 4] (0.000 s)

                                                   90
    # test1 (0.000 s)
                                                  10
                                                          public void test1() {
    # test2 (0.000 s)
                                                  11
                                                              AreaOfRect testcase = new AreaOfRect();
                                                  12
                                                              String myresult = testcase.rectangleareainput(10.0, 5.0);
                                                  13
                                                              Double testsideA = 10.0;
                                                  14
                                                              Double testsideB = 5.0;
                                                  15
                                                              Double area = 50.0;
                                                              String res = "@Produces(\"application/xml\") \n Area of Rec
String results = "<areaofrectangle>" + "<sideA>" + testside
System.out.println("@Test area(): " + results + " = " + myr
                                                  16
                                                  17
                                                  18
                                                  19
                                                              assertEquals(results, myresult);
                                                  20
                                                  21⊖
                                                          @Test
                                                  22
                                                          public void test2()
 ■ Failure Trace
                                                 <terminated> RectangleTestcases [JUnit] C:\Program Files\Java\jre1.8.0_101\bin\javaw.exe (Oct 19,
                                                 @Test area(): <areaofrectangle><sideA>10.0</sideA><sideB>5.0</sideB><ar
```

2. Test Case - Area of Triangle

```
workspace - Java - RESTExample/src/TriangleTestcases2.java - Eclipse
<u>File Edit Source Refactor Navigate Search Project Run Window Help</u>
http://loca... 🛽 AreaOfSquar... 🖺 AreaOfRect.java 🖺 Circumferen... 🖟 AreaTest.java
                      Finished after 0.019 seconds
                                                      3⊕import static org.junit.Assert.*;
 Runs: 2/2 ■ Errors: 0 ■ Failures: 0
                                                       public class TriangleTestcases2 {
∨ 🛅 TriangleTestcases2 [Runner: JUnit 4] (0.000 s)
                                                     9
                                                            @Test

    test1 (0.000 s)
    test1 (0.000 s)
                                                            public void test1() {
                                                    10
    # test2 (0.000 s)
                                                                 AreaOfTriangle testcase = new AreaOfTriangle();
                                                    11
                                                    12
                                                                 String myresult = testcase.triangleareainput(10.0, 5.0);
                                                                 Double testheight = 10.0;
                                                    14
                                                                 Double testbase = 5.0;
                                                                 Double area = 25.0;
String res = "@Produces(\"application/xml\") \n Area of Tr:
                                                    15
                                                    16
                                                                 String results = ("<areaoftriangle>" + "<height>" + testhe:
System.out.println("@Test area(): " + results + " = " + myr
                                                    17
                                                    18
                                                    19
                                                                 assertEquals(results, myresult);
                                                    20
                                                    21⊜
                                                    22
                                                            public void test2()
■ Failure Trace

    Problems @ Javadoc □ Declaration □ Console □ M Servers ● Plug-in Registry

                                                   <terminated> TriangleTestcases2 [JUnit] C:\Program Files\Java\jre1.8.0_101\bin\javaw.exe (Oct 19, 2
                                                   @Test area(): <areaoftriangle><height>10.0</height><base>5.0</base><are
```

3. Test Case - Area of Circle

```
workspace - Java - RESTExample/src/CircleTestcases.java - Eclipse
 <u>F</u>ile <u>E</u>dit <u>S</u>ource Refac<u>t</u>or <u>N</u>avigate Se<u>a</u>rch <u>P</u>roject <u>R</u>un <u>W</u>indow <u>H</u>elp
 Circumferen... 🖸 AreaTest.java 🗓 TriangleTes...
  Circumferec...
                                                                                                                                                                                                                                                                                                                   RectangleTes.
                                                            Finished after 0.019 seconds
                                                                                                                                               3⊕ import static org.junit.Assert.*; []
   Runs: 2/2 Errors: 0 Failures: 0
                                                                                                                                              8 public class CircleTestcases {

✓ Image: Value of the property of the pro
                                                                                                                                           10⊝
             # test1 (0.000 s)
                                                                                                                                                                public void test1() {
                                                                                                                                           11
             # test2 (0.000 s)
                                                                                                                                           12
                                                                                                                                                                            AreaofCircle testcase = new AreaofCircle();
                                                                                                                                                                            String myresult = testcase.areainput(10.0);
                                                                                                                                           13
                                                                                                                                           14
                                                                                                                                                                            Double testradius = 10.0;
                                                                                                                                           15
                                                                                                                                                                            Double area = 314.0:
                                                                                                                                                                           String res = "@Produces(\"application/xml\") \n Area of Cir
String results = "<conversion>" + "<radius>" +testradius +
System.out.println("@Test area(): " + results + " = " + myr
                                                                                                                                           16
                                                                                                                                           17
                                                                                                                                           18
                                                                                                                                           19
                                                                                                                                                                            assertEquals(results, myresult);
                                                                                                                                           20
                                                                                                                                           21⊖
                                                                                                                                                                @Test
                                                                                                                                                                public void test2() {
                                                                                                                                           22
                                                                                                                                           23
                                                                                                                                                                            AreaofCircle testcase = new AreaofCircle();
                                                                                                                        →
  ≡ Failure Trace
                                                                                                                                        <terminated> CircleTestcases [JUnit] C:\Program Files\Java\jre1.8.0_101\bin\javaw.exe (Oct 19, 2016)
                                                                                                                                        @Test area(): <conversion><radius>10.0</radius><output>@Produces("appli
```

4. Test Case - Circumference of Circle

```
workspace - Java - RESTExample/src/CircumfereceofCircleTestcases.java - Eclipse
<u>File Edit Source Refactor Navigate Search Project Run Window Help</u>
🖺 🗖 🖸 Circumferen... 🚨 AreaTest.java 🚨 TriangleTes... 🚨 Circumferec... 🗯 🖟 RectangleTes...
8 public class CircumfereceofCircleTestcases {
                                                 9
CircumfereceofCircleTestcases
                                               109
                                                       @Test
 Runs: 2/2 ■ Errors: 0
                              ■ Failures: 0
                                               11
                                                       public void test1() {
                                               12
                                                           CircumferenceofCircle testcase = new CircumferenceofCircle(
                                               13
                                                           String myresult = testcase.circumferenceinput(1.0);

▼ lia CircumfereceofCircleTestcases [Runner: JUnit 4] (0.003 s)

                                               14
                                                           Double testradius = 1.0;
    # test1 (0.002 s)
                                               15
                                                           Double circumference = 6.28;

    test2 (0.001 s)

                                                           String res = "@Produces(\"application/xml\") \n Circumferer
                                               16
                                                           String results = ("<conversion>" + "<radius>" +testradius +
                                               17
                                                           System.out.println("@Test circumference(): " + results + '
                                               18
                                                           assertEquals(results, myresult);
                                               19
                                               20
                                               21⊖
                                                       @Test
                                               22
                                                       public void test2() {
                                               23
                                                           CircumferenceofCircle testcase = new CircumferenceofCircle(
                                               24
                                                           String myresult = testcase.circumferenceinput(2.0);
                                               25
                                                           Double testradius = 2.0;
                                               26
                                                           Double circumference = 12.56;
                                                           String res = "@Produces(\"application/xml\") \n Circumferer
                                               27
■ Failure Trace
                                               🖫 Problems @ Javadoc 🚇 Declaration 📮 Console 🖾 🚜 Servers 🥬 Plug-in Registry
                                               <terminated > CircumfereceofCircleTestcases [JUnit] C:\Program Files\Java\jre1.8.0_101\bin\javaw.ex
                                               @Test circumference(): <conversion><radius>1.0</radius><output>@Produce
```