**Test Execution Report**

**Mensuration Formula Calculator**

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Date: /12/2020

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**1. Testing**

**Execution Status:** Completed

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| **MODULE/FUNCTIONALITY NAME:** | Test for Perimeter |
| **UNIT/CLASS:** | MensurationFormulaCalculator |
| **CREATED BY:** | Praddyumn Wadekar, Krati Patni and Kunal Bhapkar |
| **DATE OF CREATION:** | 22-12-2020 |
| **DATE OF REVIEW:** | 29-12-2020 |

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| **TEST CASE ID** | **TEST UNIT/CLASS** | **TEST CASE** | **PRE-CONDITION** | **TEST STEPS** | **TEST DATA** | **EXPECTED RESULT** | **POST CONDITION** | **ACTUAL RESULT** | **STATUS**  **(PASS/FAIL)** |
| TC001 | MensurationFormulaCalculator | Calculate Perimeter for Rectangle | Program must be running | Enter length and breadth | Length = 12  Breadth = 32 | Perimeter calculated | Perimeter is calculated and must be greater than 0. | Perimeter calculated successfully | PASS |
| TC002 | MensurationFormulaCalculator | Calculate Perimeter for Rectangle | Program must be running | Enter length and breadth | Length = -12  Breadth =-32 | Perimeter calculation failed | Perimeter is not calculated and must be greater than 0. | Perimeter calculation failed | PASS |
| TC003 | MensurationFormulaCalculator | Calculate Perimeter for Square | Program must be running | Enter side | Side = 25 | Perimeter calculated | Perimeter is calculated and must be greater than 0. | Perimeter calculated successful | PASS |
| TC004 | MensurationFormulaCalculator | Calculate Perimeter for Square | Program must be running | Enter side | Side = -25 | Perimeter calculation failed | Perimeter is not calculated and must be greater than 0. | Perimeter calculation failed | PASS |

**Execution Status:** Completed

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| **MODULE/FUNCTIONALITY NAME:** | Test for Area |
| **UNIT/CLASS:** | MensurationFormulaCalculator |
| **CREATED BY:** | Praddyumn Wadekar, Krati Patni and Kunal Bhapkar |
| **DATE OF CREATION:** | 22-12-2020 |
| **DATE OF REVIEW:** | 29-12-2020 |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **TEST CASE ID** | **TEST UNIT/CLASS** | **TEST CASE** | **PRE-CONDITION** | **TEST STEPS** | **TEST DATA** | **EXPECTED RESULT** | **POST CONDITION** | **ACTUAL RESULT** | **STATUS**  **(PASS/FAIL)** |
| TC001 | MensurationFormulaCalculator | Calculate Area for Rectangle | Program must be running | Enter length and breadth | Length = 12  Breadth = 32 | Area calculated successfully | Area is calculated and must be greater than 0 | Area calculated successfully | PASS |
| TC002 | MensurationFormulaCalculator | Calculate Area for Rectangle | Program must be running | Enter length and breadth | Length = -15  Breadth = -13 | Area calculation failed | Area is not calculated but less than 0 | Area calculation failed | PASS |
| TC003 | MensurationFormulaCalculator | Calculate Area for Square | Program must be running | Enter side | Side = 25 | Area calculated successfully | Area is calculated and must be greater than 0 | Area calculated successful | PASS |
| TC004 | MensurationFormulaCalculator | Calculate Area for Square | Program must be running | Enter side | Side = -45 | Area calculation failed | Area is not calculated but less than 0 | Area calculation failed | PASS |
| TC005 | MensurationFormulaCalculator | Calculate Area for Cylinder | Program must be running | Enter radius and height | Radius = 25  Height =15 | Area calculated successfully | Area is calculated and must be greater than 0. | Area calculated successful | PASS |
| TC006 | MensurationFormulaCalculator | Calculate Area for Cylinder | Program must be running | Enter radius and height | Radius = -32  Height =-65 | Area calculation failed | Area is not calculated but less than 0 | Area calculation failed | PASS |
| TC007 | MensurationFormulaCalculator | Calculate Area for Circle | Program must be running | Enter radius | Radius = 25 | Area calculated successfully | Area is calculated and must be greater than 0. | Area calculated successful | PASS |
| TC008 | MensurationFormulaCalculator | Calculate Area for Circle | Program must be running | Enter radius | Radius = -30 | Area calculation failed | Area is not calculated but less than 0 | Area calculation failed | PASS |
| TC009 | MensurationFormulaCalculator | Calculate Area for right angled triangle | Program must be running | Enter height and base | Height = 25  Base = 16 | Area calculated successfully | Area is calculated and must be greater than 0. | Area calculated successful | PASS |
| TC010 | MensurationFormulaCalculator | Calculate Area for right angled triangle | Program must be running | Enter height and base | Height = -24  Base =-54 | Area calculation failed | Area is not calculated but less than 0 | Area calculation failed | PASS |
| TC011 | MensurationFormulaCalculator | Calculate Area for cube | Program must be running | Enter side | Side = 32 | Area calculated successfully | Area is calculated and must be greater than 0. | Area calculated successful | PASS |
| TC012 | MensurationFormulaCalculator | Calculate Area for cube | Program must be running | Enter side | Side =-32 | Area calculation failed | Area is not calculated but less than 0 | Area calculation failed | PASS |
| TC013 | MensurationFormulaCalculator | Calculate Area for sphere | Program must be running | Enter side | Radius = 45 | Area calculated successfully | Area is calculated and must be greater than 0. | Area calculated successful | PASS |
| TC014 | MensurationFormulaCalculator | Calculate Area for sphere | Program must be running | Enter side | Radius = -45 | Area calculation failed | Area is not calculated but less than 0 | Area calculation failed | PASS |

**Execution Status:** Completed

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| **MODULE/FUNCTIONALITY NAME:** | Test for Circumference |
| **UNIT/CLASS:** | MensurationFormulaCalculator |
| **CREATED BY:** | Praddyumn Wadekar, Krati Patni and Kunal Bhapkar |
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| **TEST CASE ID** | **TEST UNIT/CLASS** | **TEST CASE** | **PRE-CONDITION** | **TEST STEPS** | **TEST DATA** | **EXPECTED RESULT** | **POST CONDITION** | **ACTUAL RESULT** | **STATUS**  **(PASS/FAIL)** |
| TC001 | MensurationFormulaCalculator | Calculate circumference for Circle | Program must be running | Enter radius | Radius = 14 | Circumference calculated successfully | Circumference is calculated and must be greater than 0. | Circumference calculated successfully | PASS |
| TC002 | MensurationFormulaCalculator | Calculate circumference for Circle | Program must be running | Enter radius | Radius = -52 | Circumference calculation failed | Circumference is not calculated but is less than 0. | Circumference calculation failed | PASS |

**Execution Status:** Completed

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| **MODULE/FUNCTIONALITY NAME:** | Test for Volume |
| **UNIT/CLASS:** | MensurationFormulaCalculator |
| **CREATED BY:** | Praddyumn Wadekar, Krati Patni and Kunal Bhapkar |
| **DATE OF CREATION:** | 22-12-2020 |
| **DATE OF REVIEW:** | 29-12-2020 |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **TEST CASE ID** | **TEST SCENARIO** | **TEST CASE** | **PRE-CONDITION** | **TEST STEPS** | **TEST DATA** | **EXPECTED RESULT** | **POST CONDITION** | **ACTUAL RESULT** | **STATUS**  **(PASS/FAIL)** |
| TC001 | MensurationFormulaCalculator | Calculate Volume for Cylinder | Program must be running. | Enter height and radius | Radius=4  Height=10 | Volume is calculated successfully | Volume is calculated and must be greater than 0. | Volume calculated successfully | PASS |
| TC002 | MensurationFormulaCalculator | Calculate Volume for Cylinder | Program must be running | Enter height and radius | Radius=  -12  Height=  -12 | Volume is not calculated successfully | Volume is not calculated but it is less than 0. | Volume not calculated successfully | PASS |

**Execution Status:** Completed

**2.0 Tools Used for Testing**

**1.Junit**

Junit is a unit testing framework for the java programming language. Junit has been important in the development of testing driven development, and is one of the family of unit testing framework which is collectively known as xUnit that originated with Sunit.

**2.Eclipse IDE**

Eclipse is an Integrated Development Environment (IDE) used in computer programming and is the most widely used Java IDE. It contains a base workspace and an extensible plug-in system for customizing the environment. Eclipse is written mostly in Java and its primary use is for developing Java applications, but it may also be used to develop applications in other programming languages via plug-ins, including C, C++, C#, COBOL, JavaScript, Python etc. It can also be used to develop documents with Latex and packages for the software Mathematica. Development environments include the Eclipse Java development tools