**Test Plan Report**

**Mensuration Formula Calculator**

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Date: /12/2020

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**1.0 INTRODUCTION**

Mensuration Calculator is Java based calculator which calculate the area, perimeter, and volume of different shapes such as circle, rectangle, sqaure, right angled triangle, cube, sphere, cylinder

**2.0 OBJECTIVES AND TASKS**

**2.1 Objectives of Test Plan**

* To communicate to all users the detailed plan for running the test cases.
* To define the scope of what will be tested.
* To estimate the resources required.
* To specify the tools used for testing.
* To estimate the risks to testing plan and how to mitigate them.

**2.2 Tasks of Test Plan**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Sr.**  **No.** | **#Business Requirements**  **(BR)** | **#Functional Requirements**  **(FR)** | **#Test Scenarios (TS)** | **#Testing Approaches /Strategies**  **(TA)** |
| 01 | Able to perform area calculation of different shapes | Application should be able to perform area multiplication | MensurationFormulaCalculator | JUnit |
| 02 | Make system more feasible and easier to use. | Navigation between different choices |
| 03 | Able to perform perimeter calculation of different shapes | Application should be able to perform perimeter multiplication |
| 04 | Able to perform Volume calculation of different shapes | Application should be able to perform Volume multiplication |

**3.0 SCOPE**

**General**

The purpose of testing is to ensure that the application meets all the technical, functional and business requirements. The purpose of this document is to describe the test plan and test strategy for testing the application. The approach described in this document provides the framework for all types of testing related to this application.

**4.0 TESTING STRATEGY**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Approach** | **Type of Testing** | **Manual Testing** | **Automated Testing** | **Tools/APIs/Libraries** |
| Standard Testing  (Functional Testing) | Unit Testing | Yes | Yes | JUnit |
| Integration Testing | Yes | yes |
| System Testing | Yes | Yes |
| Regression Testing | No | No |
| Acceptance Testing | No | No |
| Security Testing |  |  |
| - |
| - |

**4.1 Unit Testing**

**Definition:**

Unit testing is a software testing method by which individual units of source code, sets of one or more computer program modules together with associated control data, usage procedures, and operating procedures, are tested to determine whether they are fit for use. Intuitively, one can view a unit as the smallest testable part of an application.

**Participants:** Praddyumn Wadekar, Krati Patni and Kunal Bhapkar

**Methodology:**

|  |  |
| --- | --- |
| **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)** |
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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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| **MODULE/FUNCTIONALITY NAME:** | Test for Circumference |
| **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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| **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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**4.2 System and Integration Testing**

**Definition:** System testing means testing the system. All the modules/components are integrated to verify if the system works as expected or not. System testing is done after integration testing. This plays a significant role in delivering a high-quality product.

**Participants:**

Praddyumn Wadekar, Krati Patni and Kunal Bhapkar

**Methodology:**

|  |  |
| --- | --- |
| **MODULE/FUNCTIONALITY NAME:** |  |
| **UNIT/CLASS:** | MensurationFormulaCalculator |
| **CREATED BY:** | Praddyumn Wadekar, Krati Patni and Kunal Bhapkar |
| **DATE OF CREATION:** | 22-12-2020 |
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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)** |
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**5.0 HARDWARE / SOFTWARE REQUIREMENTS**

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| --- | --- | --- | --- | --- |
| **ID** | **Hardware Specification**  **(Processor/Clock Speed/RAM)** | **Operating System** | **Browsing Application** | **Interactive Testing**  **(PASS/FAIL)** |
| 1 | 1.6 GHz Intel Core i5 | Windows 10 | Chrome | Pass |
| 2 | Intel Core i3 | Ubuntu | Mozilla Firefox | Pass |

**6.0 TEST SCHEDULE**

|  |  |  |  |
| --- | --- | --- | --- |
| **Task Name** | **Start Date** | **Finish Date** | **Effort Estimation** |
| Test Planning | 5/12/2020 | 10/12/2020 | 6 days |
| Review Requirements documents | 11/12/2020 | 11/12/2020 | 1 day |
| Create initial test estimates | 12/12/2020 | 13/12/2020 | 2 days |
| First deploy to QA test environment | 14/12/2020 | 15/12/2020 | 2 days |
| Functional testing – Iteration 1 | 16/12/2020 | 17/12/2020 | 2 days |
| Iteration 2 deploys to QA test environment | 18/12/2020 | 19/12/2020 | 2 days |
| Functional testing – Iteration 2 | 20/12/2020 | 21/12/2020 | 2 days |
| System testing | 22/12/2020 | 22/12/2020 | 1 day |
| Regression testing | 23/12/2020 | 23/12/2020 | 1 day |
| User Acceptance Testing | 24/12/2020 | 24/12/2020 | 1 day |
| Resolution of final defects and final build testing | 25/12/2020 | 25/12/2020 | 1 day |
| Report Generation | 26/12/2020 | 29/12/2020 | 3 days |

**7.0 FEATURES TO BE TESTED**

* To check Area functionality.
* To check Perimeter functionality.
* To check Circumference functionality.
* To check Volume functionality.

**8.0 RESOURCES/ROLES & RESPONSIBILITIES**

Team member details and work distribution

|  |  |  |
| --- | --- | --- |
| Sr No | Name | Roles and Responsibility |
| 1 | Kunal Bhapkar | Responsible for Project schedules and the overall success of the project. |
| 2 | Praddyumn Wadekar | Serve as a primary contact/liaison between the development and project team. |
| 3 | Krati Patni | Ensure the overall success of the test cycles. She will coordinate weekly meetings and will communicate the testing status to the project team. |