**TEST PLAN**

**1. TEST OBJECTIVE OR AIM**

The purpose of this document is to create an application test plan for calculation of shapes.

The purpose of testing this program is to check the correct operation in which the customers can calculate the shapes.

**2.SCOPE OF TESTING**

**A) Within the Scope:** Features to be tested

* checking the area and perimeter of Equilateral triangle.
* checking the area and perimeter of Square.
* checking the area and perimeter of pentagon.
* checking the area and perimeter of Hexagon.
* checking the area and perimeter of Rectangle.
* checking the area and perimeter of Circle.
* checking the area and perimeter of Cube.
* checking the area and perimeter of Cylinder.
* checking the area and perimeter of Sphere.
* checking the Quit.

**B) Out of scope:** Features not be tested

* User interface
* Hardware interface
* Software Interface

**3)TEST STRATEGY**

**a) Levels of testing**

* Unit testing
* Every module tested independent
* Integration testing
  + Checking the interface of the calculation of shapes.
* System testing
* Total end to end functions of calculation of shapes checking

**B) Types of testing**

* Static testing
* All the documents are should be checked, approved and walkthroughs reviews, Inceptions of calculation of shapes project done here
* Dynamic testing
* White box testing- check the structure and code of the application
* Black box Testing- Checking the function of the application
* Functional Testing
* Giving length, breadth and radius and testing the functionality
* External interfaces also be tested

**C) Test design Tech**

* White box tech- Statement coverage, branch coverage Decision Coverage
* Black Box tech -  BVA, ECP,

**D) Terminology**

* Choosing the shapes and entering the required radius, length, breadth and height.

**4) EXIT AND ENTRY CRETIRIA**

Entry criteria

* Understand and analyses the requirement according to the specification

 which is code based or Requirement based

* Test data should be ready
* Modules are features assigned must be prepared according to schedule
* The necessary resource should be ready

Exit criteria

* All the test cases should be executed
* Most of the test cases should be passed with minimum defects
* Major defects should be closed so that the application does not become a

 show stopper

**5) TEST DELIVERABLES**

* Test Plan
* Test cases
* Test scripts
* RTM (Requirement traceability matrix)
* Defect report
* Test Execution report
* Graphs and Metrics
* Release Notes

**6) ROLES AND RESPONSIBITY**

 Jeevan: SRC documents

Revanth : Application flow diagram

Vijaya Laxmi : Test Plam

Divya : Defect log, RTM

Kranthikumar : Test cases, Test Scenarios

**7) RISK AND MITIGATION**

**a) Risk and Contingency**

If we lost the code then we can go for get-hub there we can find the code

**b) Risk and Mitigation**

If the program has any error it need be rectified in order to solve the problem.

**8)SCHEDULE**

Test document s - 1 month (01/05/2022 -01/06/2022)

Test Execution done- 2 months (02/06/2022-01/07/22)

Test report – 15 days

Retest – 15 days

**9) HIRING AND TRAINING**

For this application we should know math calculations. So we should train the team for math calculations.

**10) Test Environment**

It should run on all browsers and system and hardware and software

* Production environment
* Development environment
* Testing environment

**11) Assumption**

 All the team mates should be meet and give assumptions on where we get more bugs that effect the system and we should invite recovery method for it.

**12) Approval information**

* Test case – customer or manager
* Test case written – test lead and test engineer
* Test case verified by – test engineer/ test lead/ test manager
* Test case approved by – test manager / test lead/ test customer

**13)Test Metrics**

All types of metrics like defect metrics, line code metrics should be measured