TEST PLAN

Introduction: We worked on the game project Tic-tac-toe. We perform various test cases for each java file (Location, Square, Model, Position, Area, Tac, Tic-tac-toe). Tic –Tac toe game has two players who take turns and fill the 3 * 3 grid who X and 0. The winner is who makes their marks horizontally, vertical or diagonal is the winner.

First, we Create a Project structure. First arrange the code file in src folder and test file in test folder. We added maven structure with pom.xml file in project

Test Items:

In the project we would like to create test cases for Tic Tac Toe test cases first, ModelTest, PositionTest SquareTest, LocationTest and TacTest is our test item

Feature To be Tested:

We tested the all-test cases for game O and X position in 3 by 3 grid. also create board test cases for create a board function. We added randomHigh() and randomLow() function testcases for check win or lose or tie game. Location for row and column number is also tested.

Feature Not To be Tested: Some of the features which are used protected and private class is challenging for us to test. Like in Position.java file have hasColumns(), hasRow(), hasDiagonal() Methods which is can't be able to access in testfile to write some test cases.

Approach: we use various testing techniques Like junit test cases, Mockito testing, Maven ,Mutation testing, Regression Testing.

Environment Needs: For set up project we need java JDK, Junit testing Framework, JUnit are used for identifying test methods. A variety of assertions, grouping tests into test suites, and ease offered in maintaining tests are the major reasons for JUnit's popularity, Mockito and for mutation testing we need Environment for PIT.

Item Pass/Fail: All the test cases for Tic-Tac-toe, Location and Model, Position classes are passed.

Responsibility :

Class file test	Assigned Member
ModelTest	Poonam
SquareTest	Bakya
Tic tac toe	Poonam
Location	Poonam, Bakya, Benny
Area	Poonam
Regression Testing	Bakya
Truth table	Bennny
Mutation Testing	Bakya
Test Plan	Poonam
Position	bakya
One page Lesson	Benny
Presentation	Bakya, Benny, Poonam