TIC-TAC-TOE

INTRODUCTION:

The Tic Tac Toe In Java is a Game Application developed in Java Programming Language, In this Tic Tac Toe In Java Code is a simple Java Project that anyone can like this Game Application, because in this Game Application is easy to understand and easy to play

ABSTRACT:

Tic-Tac-Toe is a fun game played by two players. Before starting the game a 3x3 square grid is formed using two vertical and two horizontal lines. The player who succeeds in placing three of their marks in a horizontal, vertical, or diagonal row is the winner.

HOW TO PLAY?

* Both the players choose either X or O to mark their cells.
* There will be a 3×3 grid with boxes assigned to each of the 9 cells.
* The player who chose X begins to play first.
* He enters the cell box where he wishes to place X
* Now, both O and X play alternatively until any one of the two wins.
* Winning criteria: Whenever any of the two players has fully filled one row/ column/ diagonal with his symbol (X/ O), he wins and the game ends.
* If neither of the two players wins, the game is said to have ended in a draw.

REQUIREMENTS:

LOW LEVEL REQUIREMENTS

|  |  |  |
| --- | --- | --- |
| ID | DESCRIPTION | STATUS  (IMPLEMENTED) |
| LLR01 | There shall be a 3x3 square box for tic-tac-toe game | Implemented |
| LLR02 | There will be two players for game | Implemented |
| LLR03 | First player called as "X" and Second  player called as "0" | Implemented |
| LLR04 | Both the players play one after other in the board | Implemented |
| LLR05 | After every move  board will get updated | Implemented |
| LLR06 | If the place is  occupied it will ask to enter again | Implemented |
| LLR07 | At the end of the game it will print the player name | Implemented |

HIGH LEVEL REQUIREMENTS

|  |  |  |
| --- | --- | --- |
| ID | DESCRIPTION | STATUS |
| HLR01 | User able to play Tic-Tac-Toe game | Implemented |
| HLR02 | User can have (X) and (O) | Implemented |

CASE DIAGRAM:

BEHAVIOURIAL DIAGRAM:

Game

Score

Tic-Tac-Toe

User

STRUCTURAL DIAGRAM:

Main menu

Games

yes

Tic-Tac-Toe

view

Viewer

USE CASE:



Player 1 label

label label

 label

Player2

TESTPLAN:

LOW LEVEL TESTPLAN:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| TEST ID | DESCRIPTION | EXP IP | EXP OUT | ACTUAL OUT | STATUS |
| LL01 | Tic-Tac-Toe game should execute successfully | Application executed successfully | Dependencies | Dependencies | SUCCESS |
| LL02 | 3x3square board game should be initialized correctly | Execute Tic-Tac-toe | An empty game board should be visible | An empty game board is visible | SUCCESS |
| LL03 | Player should enter the column and row(XY) | User input | Check if the coorinates are valid | The coordinates are checked | SUCCESS |
| LL04 | User input shall be tested for validity | User input | Error will be shown if coordinates are not valid | Error is shown | SUCCESS |
| LL05 | If a player win game will end | Player moves | When a player is wins, winner is printed | Winner is displayed and game ends | SUCCESS |
| LLO6 | If no player wins and the board will be fill the game will be draw | Player win | Draw is displayed at the end of the game | Draw is displayed at the end of the game | SUCCESS |

HIGH LEVEL TESTPLAN:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| TEST ID | DESCRIPTION | EXP IP | EXP OUT | STATUS |
| HL01 | Check if the gameboard is displayed correctly | Key pressing according to menu options | An empty 3x3 grid will be displayed | Pass |
| HL02 | Check if player1 is prompoted to entire desire coordinates | Key pressing according to menu options | Player will be asked to enter coordinates of the desired cell in the game board | Pass |
| HL03 | Check if the player input is valid and position is already not occupied | Entering desired coordinates | If valid, player2 will be asked to input otherwise error will be displayed and ask player to give input again | Pass |
| HL04 | Check for a winner | Key pressing according | If a winner is found game is over or else game will continue or draw | Pass |

OUTPUT:

