

Final-Project  
By  
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**Project Title:** *Tic-Tac-Toe Game Implementation*

**Team Members:** Brianna Pinho, Dhvani Patel

**Course:** OPPAD

**Instructor:** Richard Rabbitz

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## **Project Description:**

Tic-Tac-Toe, also known as Noughts and Crosses, is a classic two-player game played on a 3x3 grid. The objective is to be the first player to align three of their marks—either "X" or "O"—in a horizontal, vertical, or diagonal row. If all squares are filled and no winning condition is met, the game results in a tie.

## **Game Rules Overview:**

1. **Setup:** Two players take turns placing their marks in one of the nine grid squares.
2. **Turns:** Players alternate turns, with "X" typically going first.
3. **Winning:** A player wins by placing three of their marks consecutively in a row, column, or diagonal.
4. **Tie:** If all squares are occupied with no winner, the game ends in a draw.

## **Project Work Distribution:**

The development responsibilities were equally divided between both team members:

- **Brianna Pinho** implemented three core classes of the project.
- **Dhvani Patel** implemented the remaining three classes.
- **UML Diagram:** We both team members collaborated to design and finalize the Unified Modeling Language (UML) diagram representing the system architecture.