



Pundra University of Science & Technology

Course Title: Software Development Project 2

Course Code: CSE- 3200

Topic Name: TicTacToe project is a game created using netbeans software

1. Title Page

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Session: Summer 22

Batch: 15st Semester: 6th

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2. Abstract

The tic- tac-toe game is played on a 3x3 grid. The game is played by two players, who take turns. The first player marks the move with a cross, the second with a circle. The player who has formed a horizontal, vertical, or diagonal sequence of three marks wins. Your program should draw the game board, ask the user for the coordinates of the next mark, change the players after every successful move, and pronounce the winner.

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4. Introduction

Tic-Tac-Toe is a classic 2-player game where players take turns marking a 3x3 grid with their symbol (X or O). The goal is to place three of their symbols in a row—vertically, horizontally, or diagonally. In this project, we'll create an java application for Tic-Tac-Toe with a user-friendly interface using netbeans software.

5. Methodology

The methodology involves a step-by-step approach to design, develop, and test the Tic-Tac-Toe game. This ensures a systematic process for delivering a functional and user-friendly java application.

Requirement Analysis

- A 3x3 game grid.
- Two-player local gameplay (X and O).
- Game logic to check for a win, loss, or draw.
- The logic behind who won the game how many times.
- Reset functionality to new the game.
- The logic of exiting the game at once.

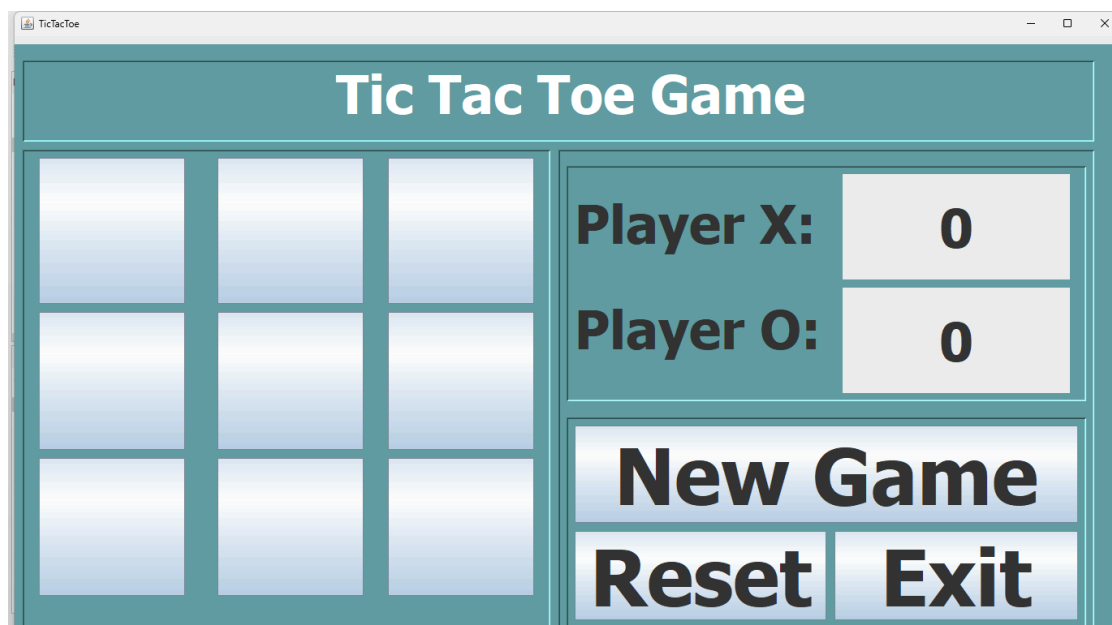
6. System Design

Tools and Technologies

- **Development Environment:** Netbeans
- **Programming Language:** Java
- **UI Design:** JFrame in Java

Development Process

- I. **Requirements Gathering:** Identified core features.
- II. **Design:** Created mockups and flow diagrams.
- III. **Implementation:** Coded the functionality using Java and XML.
- IV. **Testing:** Conducted unit testing and user testing to ensure functionality.



7. Testing

Testing and validation ensure that the Tic-Tac-Toe game functions as intended, provides a seamless user experience, and is free from bugs. Below is the comprehensive testing and validation plan for the game.







8. Results

The results and discussion section evaluates the outcomes of the Tic-Tac-Toe game development and testing process. It highlights the functionality, user experience, and performance of the game, along with identifying areas for improvement and future enhancements.

9. Challenges and Limitations

Challenges

- Ensuring compatibility across java versions in netbeans software.

Limitations

- It will always show fixed size in 1080 x 1920 px.
- When three crosses (X) or zeros (O) are matched, the win cannot be declared by the crossed out symbol.

10. Conclusion

SimpleScript successfully provides a lightweight and user-friendly note-taking experience. Feedback indicates that users appreciate its simplicity and responsiveness.

11. References

- YouTube Tutorial

Author: CodeWithHarry

Title: "How to Create Advanced Tic Tac Toe Game in Java NetBeans"

URL: https://youtu.be/H9zadE3h_8E?si=4-MicfxsdKaqak5_