

A project on OOP.

LUDO

"A Timeless Board Game"

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About

Our project involves making a Ludo game with a user-friendly design and smooth gameplay. Ludo is a board game where players roll a dice to advance their tokens along a cross-shaped board's path. The objective is to safely move all tokens to the center area. It's a game of chance and strategy. We chose this project because Ludo is loved by many and we aimed to bring this beloved game into the digital realm, offering an opportunity for players to experience its excitement and foster friendly competition in a modern context.

Objectives



Authentic Gameplay

Create a digital version of Ludo that captures the essence of the physical board game.

Multiplayer Interaction

Develop a multiplayer functionality, allowing friends and family to play together.

User-Friendly Interface

Design an intuitive user interface that simplifies gameplay for players of all ages, making it easy to understand and navigate.

Digital Convenience:

Offer the convenience of digital gameplay, eliminating the need for physical components and providing an on-the-go entertainment option.

Technical Specifications

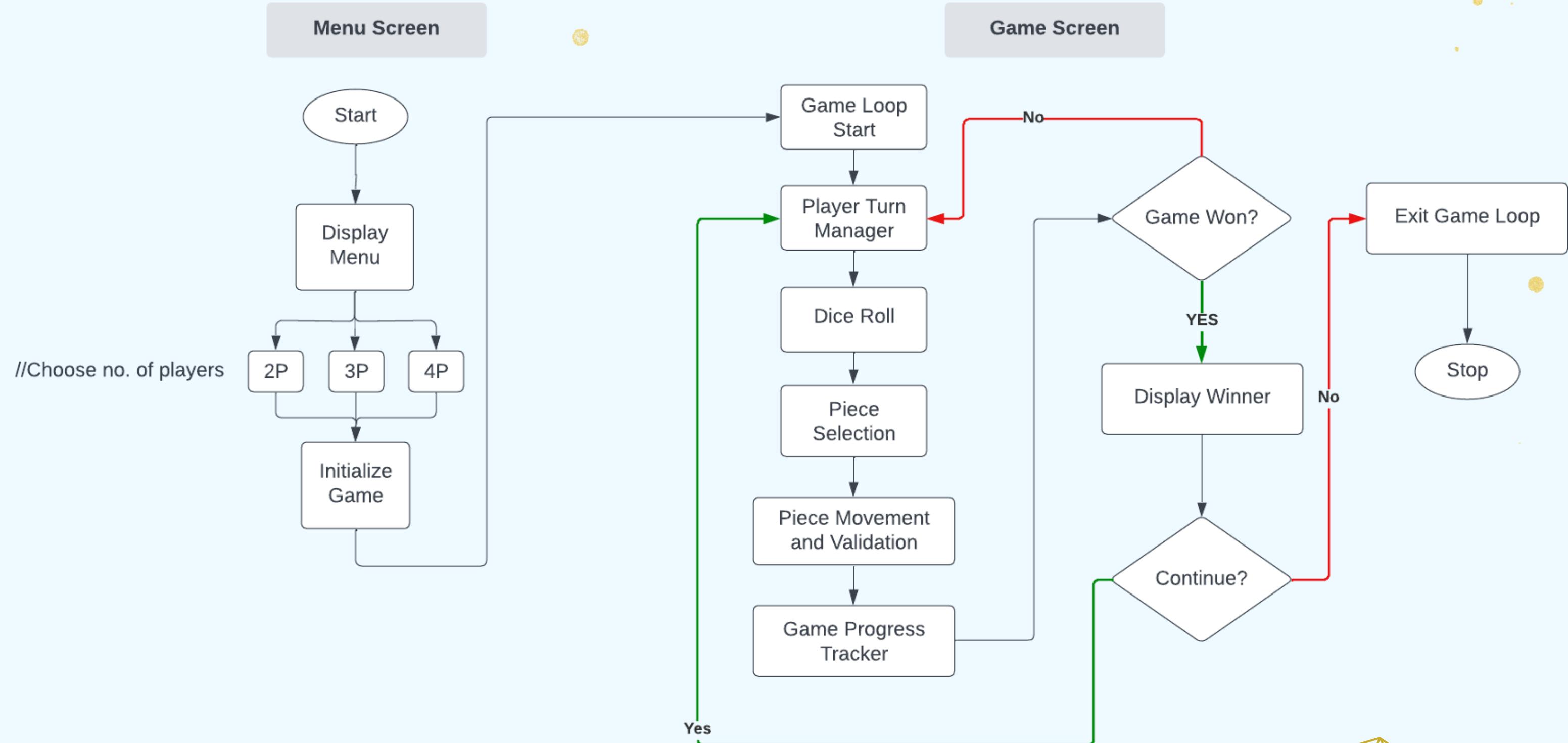
- 1 C++ - Programming Language.
- 2 SFML - GUI Library.
- 3 Figma - Designing Software.
- 4 VSCode - Code Editor.

What is **SFML?**

SFML (Simple and Fast Multimedia Library) is an open-source multimedia framework that facilitates the development of interactive and multimedia applications. With a focus on speed and simplicity, SFML provides a range of tools for graphics, audio, window management, and more, making it an ideal choice for game development and multimedia projects.



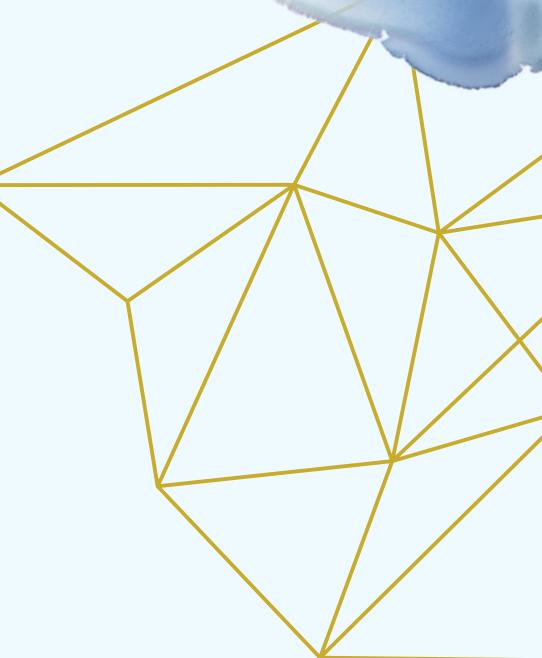
Block Diagram



Gameplay

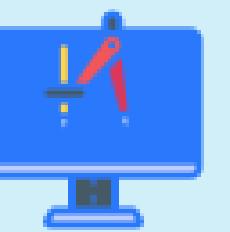
- After the number of players is selected by the user, the game screen is initialized.
- Players initiate actions by utilizing mouse clicks to roll the dice.
- When a player rolls a 1, they gain the privilege to release a game piece of their choice onto the board.
- If a player rolls either a 1 or a 6, they are granted an additional turn.
- Players can choose a specific piece from their selection by clicking on it.
- Landing on a space occupied by an opponent's piece cause the reset of that piece, unless it resides in a safe position.
- The primary objective is for a player to successfully move all of their pieces to the designated home area.
- The game concludes when a player accomplishes the task of relocating all their pieces home; however, the game can persist among the remaining players even after a player's victory.
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DEMO



Development Process

- 01** Designing every game assets in figma.
- 02** Mapping the coordinates of every assets in an array.
- 03** Coding game logic and rules.
- 04** Debugging and Testing



Limitations

Only Local Multiplayer mode

No options for customization

No option of computer player

Future Enhancements

Online Multiplayer mode

Preference and customization option

Bot for single player

Learning/Achievements

Multiplayer Functionality

Successful Replication of Gameplay

Smooth User Experience

Coding Proficiency

Team Collaboration

THANK YOU

End of Presentation

