

Project Proposal

Data Structures and Algorithms

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Project Title

Ludo

Project Description

We will use python to build a game of ludo as an implementation of data structures, with traditional rules, that include

Main:

- There will be 4 players that will race their tokens across the board.
- A player only enters the game when they get a 6, and win when all their tokens reach their 'home' column and up to the finishing square.
- If one token lands at a position where there is already another player's token, the first token will be ousted from the game.
- A player can only take their token inside their 'home' column after they have ousted at least one token (belonging to another player) from the game.
- If a player only has one token on the game track, that token will be moved automatically. If there are more tokens, the player will be asked which one they want to move.
- Once in their home columns, the players can only move forward if the number of spaces ahead of them are greater than or equal to the dice roll, otherwise they don't move at all.
- If a player gets a 6 when they roll the dice, they will keep rolling it till they get a non-six number. However, if they get 6 a total of 3 times, the turn will be passed and no token will be moved.
- The game will have 1 dice.

Further possibilities:

- There will be either a 4-player game or a single player versus machine game.

Project Outcome

The outcome will be an interactive game of ludo with an appealing user interface.

Libraries & Resources

Pygame/Tkinter