# **Ludo**

## **Rules:**

My project is the broad game Ludo. The game will involve players trying to get all their tokens home to win the game. The player rolls and dice and if they manage to get a 6 they can move onto the board path, also if the player does roll a 6 they get to roll the dice again. Once on the board they move what number the roll was. If one players token lands on another players token the other player token goes back to the start and must get a roll of 6 again to come back onto the board. The first player to get all of their 4 tokens on to the home path is the winner.

## How the game works:

The player will be played by between one and four players. The players will be instances of the “Player” class. This class will inherit methods and attributes from the abstract class “Person”. The “Person” class will, in turn, implement the “PlayerActions” interface which will contain two methods – setName & rollDice.

The Game will be played on a GUI built using a JFrame and having a gridLayout and a 2d array of Jpanels. The player must press the new game JButton on the JMenuBar which will call the playerMenu method. In this method will be an array of players and is populated by JOpionPane dialog.

Many arrays will be employed to handle the functionality of the game. Examples of this includes the game squares, the different players paths, the players and their tokens. There will also methods to determine the starting position for all the different players token.

The main functionality in the game is in the actionListener with many if else statements for all the tokens to do different movements depending on the roll of the dice.

Finally there is a function to write the player info into a file of a leader board high score and read it back out onto a text area.

My git hub commits and progress can be found by visiting: <https://github.com/PeterMc48/OOPLudo>

## UML/VOPC Diagram

A screenshot of a cell phone

Description automatically generatedA close up of a piece of paper

Description automatically generatedA close up of a logo

Description automatically generated