

Design Ludo Game.

LUDO GAME

Player

DICE

Board

Cell

Piece

move validation

Ludo Game {

List < player > ;

Dice ;

Board ;

~~int~~ bool isGameOver() ;

void startGame() ;

}

Player {

int Id ;

String name ;

List < Piece > ;

bool isWinner ;

bool hasAll piece in Home() ;

void move (Piece, step) ;

}

3)

Piece {

id ;

player

Cell currentPosition ;

bool isHome ;

bool isAtStart ;

void resetPosition () ;

void move (int step) ;

}

4)

Die {

maxVal ;

minVal ;

int roll () ;

}

5)

Cell {

int position ;

bool isSafeZone ;

~~bool~~ isHome ;

int occupyingPiece (PieceId) ;

bool CanOccupy (Piece) ;

void placePiece (Piece) ;

void removePiece () ;

}

6) Board {
 int size;
 List <cell> cells;
 map <player, List <cell>> HomeCell;
 void initializeBoard ();
 cell getCell (int position);
 bool isValidMove (Piece, step, size);
 }

7) MoveValidator {
 static bool isValidMove (player, piece, step, Board);
 }