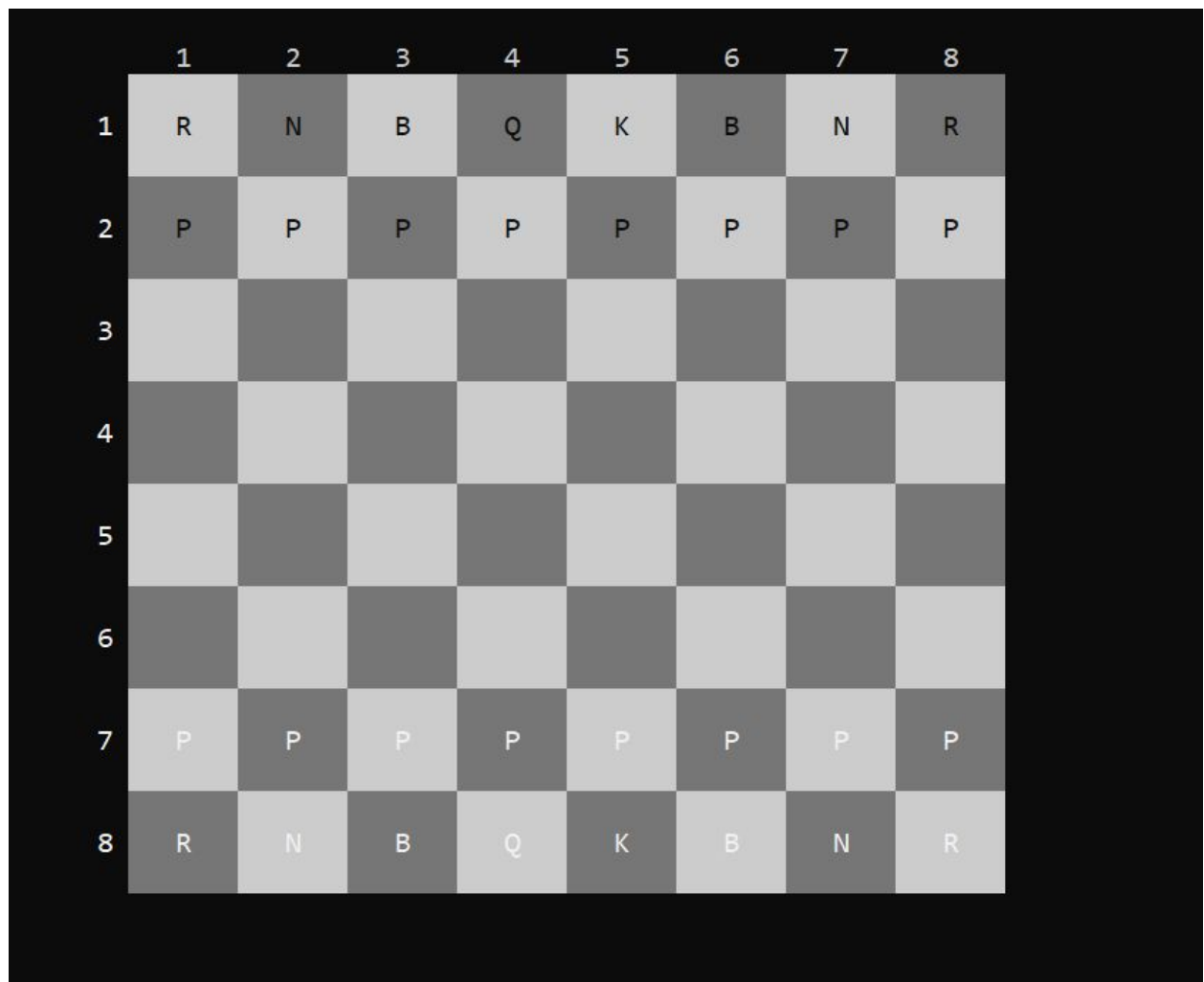


# Chess Game

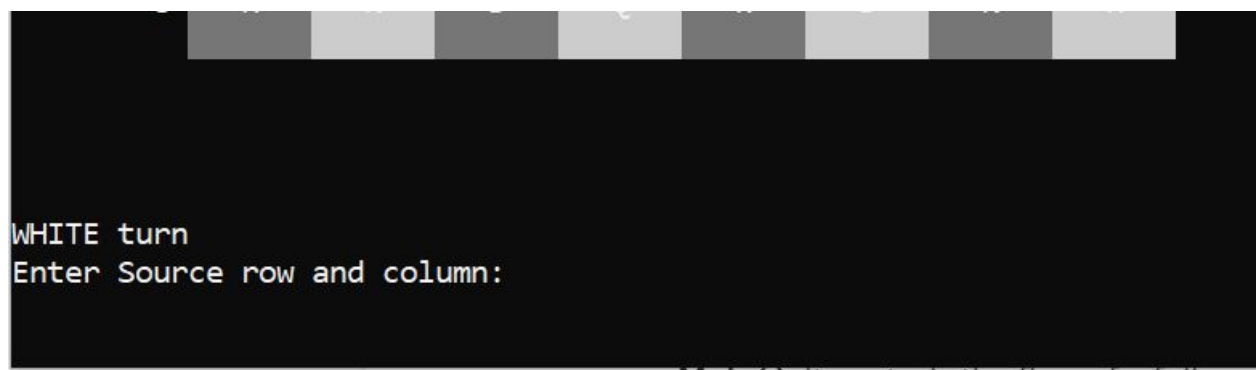
A two player chess game

By Siddharth Kale ( Sid\_330s)

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```
WHITE turn
Enter Source row and column:
```

## Concepts Used

- Abstract classes
- Pure Virtual Functions
- Function Overriding
- Hierarchical Inheritance
- Constructor ( for initialization of game )
- Parameterized Constructor (getting features of all pieces)
- Pointers and Functions
- Goto Keyword and Labels
- SetConsoleTextAttribute (Windows.h) for GUI
- Console I/O

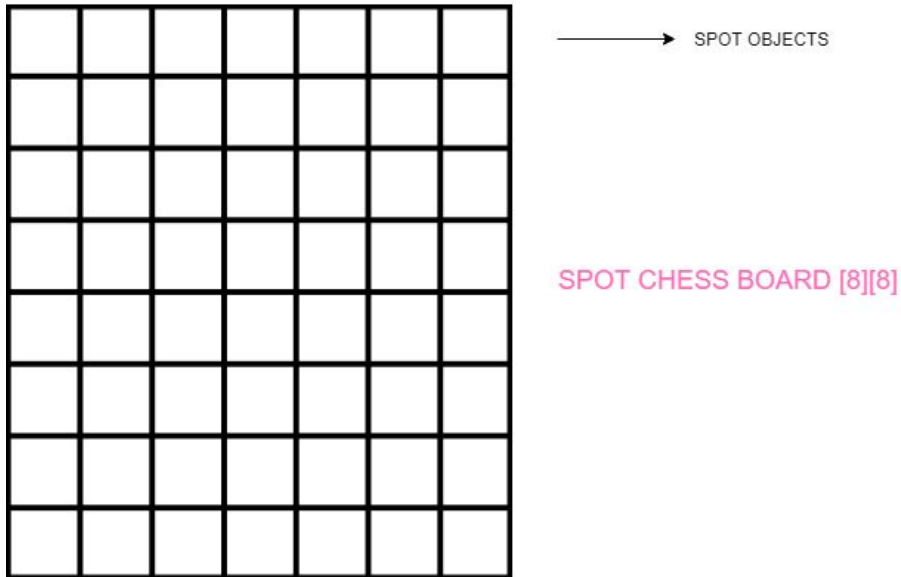
## Classes Descriptions

- **Spot:** A spot represents one block of the 8×8 grid and an optional piece.
- **Piece:** The basic building block of the system, every piece will be placed on a spot. Piece class is an abstract class. The extended classes (Pawn, King, Queen, Rook, Knight, Bishop) implement the abstracted operations.
- **Game:** This Class Initializes the Game placing pieces to their original positions. It keeps track of all the game moves.

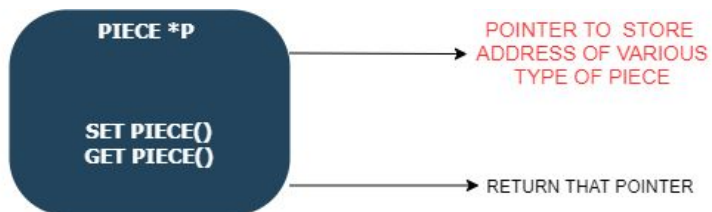
## Methods And Variables Description

- **Main( ):** It controls the flow of a full game till one player wins.
- **chessBoard [ 8 ][ 8 ]:** Board is an 8×8 set of boxes containing all active chess pieces.

- **isMoveValid( )**: This Function is Present in Piece (Virtually) and Every Sub-Piece (Pawn, King, Queen, Rook, Knight, Bishop).
- **PieceAtxy**: Every Piece is assigned a number to be identifiable uniquely.



## Spot Class



## Hierarchical Inheritance

