**Project Name:**

CHESS GAME

**Group Members:**

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**Introduction:**

Chess is a game of strategy and tactics for two players, played on an 8x8 checker board. Although chess sets come in many varieties and colors, the traditional colors are white and black. The aim of the game is to trap your opponent's king, which is called Checkmate. A game can also be won if your opponent gives up (in chess, we call this 'resigning'), and there are a variety of ways a game can end in a draw, in which case neither player wins.

Each player has an army consisting of a king, a queen, two rooks, two bishops, and two knights, and eight pawns. Each turn, you must move one piece to a new square. The player with the white pieces goes first, and after that the players take it in turns to move a piece. There are no dice in chess - every piece has its own way of moving, and it's up to user to move the one user want to move. Each piece also has the ability to capture, or 'take', an enemy piece. To do this, you simply move your piece or pawn onto the square occupied by the enemy piece, and remove it from the board.

**Input:**

For the implementation of inputs in chess we will have to make proper functions for each type of move. The user will be asked to enter the piece he wants to move.

Each piece will have its own function. And the function will be called upon the input of the player.

**Output:**

The compiler will be asking the user for the input and it will give output of the chessboard, each time user inputs the position of the piece to move.

**Components:**

**Rooks:**

Rooks are placed at the four corners of the board

**Knights:**

Knights are placed next to rooks.

**Bishops:**

Bishops are placed next to the Knights.

**Queen:**

The Queen is placed at the square of her own color, white queen starts from the light square and the black queen starts from the dark square.

**King:**

The King is placed after the queen (to the left or to the right of queen).

**Pawns:**

Pawns are placed in a single row in the front row of their respective color teams so that all the other pieces have a pawn in front of them.

**Data Structure Used:**

* **Arrays:**

Arrays will be used to create and also display chess 8x8 chessboard.

They’ll also be used to move a piece to the desired valid position on chessboard.

* **Pointers:**

Pointers will be used to check if the position is valid or occupied.

* **Doubly Linked List:**

Doubly linked list can be used to go to the previous state by moving pieces to their previous position.

**Flow of Project:**

