**Chess project**



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**Main Data structures used:**

Map -> to map the pieces with positions

Vector-> to store the all possible moves

String -> to get the input form the user

**Main components of the project:**

* Structure of chessboard
* Structure of moves
* Reset function
* Possible moves
* Print board
* Input
* King\_exists
* Make move function
* Print help
* Flipturn
* Main function

**DESCRIPTION OF EACH FUNCTION**

* Structure of chessboard:

In this we have designed the structure of chess board in a 8X8 matrix format.

* Reset function

It makes the chess board to its initial position as all sprites will be at its initial

position.

* Possible moves

In this function we have stored all possible moves of each sprite.

* Print board

It prints the chess board on the console screen.

* Input

In this we have taken input from user for the moves for each sprite according to

their respective turn.

* King\_exists

It is the checkmate conditions which checks for the presence of the king and

outputs the winner.

* Make move function  
  It takes the input in string as from and to coordinates, and helps in telling if its a valid move and making that move on the chess board
* Print help  
  Simply outputs the instructions how to use the program
* Flipturn  
  It changes the turn from white to black or vice-versa

**SCREENSHOTS:**



