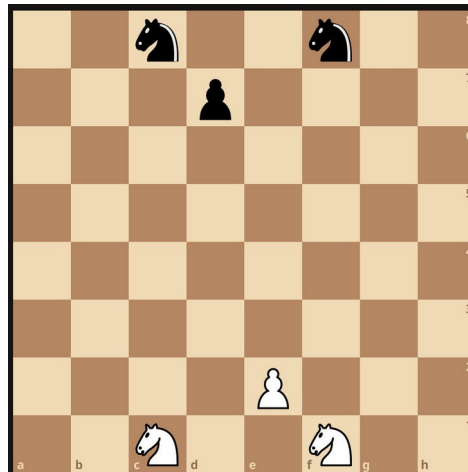


**Yeditepe University**  
**Department of Computer Engineering**  
**CSE 585 – 2022 Spring**  
**Term Project**  
**Due Date: 24 May 2022**

In this project you are required to develop a machine learning application for the board game below.



**Figure 1: Initial Configuration**

**Rules:**

- 1) Each player has 3 pieces and the initial configuration of the board is given above
- 2) You are supposed to use the indexing given in the figure
- 3) The number of turns in the game is a user parameter
- 4) The user can choose to play with the white or black pieces
- 5) In each turn each player should move exactly one piece
- 6) White starts the game
- 7) The pieces can move according to the rules of chess game
- 8) The pieces can capture each other according to the rules of the chess game
- 9) The aim is to move the pawn to the other side of the board
- 10) Game finishes if a pawn reaches to the other side of the board or if one of the players loses all of the pieces
- 11) The user can be a human or a separate program. So at the beginning of the execution, your program is supposed to ask if the user will be a human or a separate program. If the user is another program, the best is to have inter-process communication to get the actions of the other program. However writing the actions to a common file can also be a simple and quick solution (Open to discussion). Then the file name should be an input to your program

The file content can be as follows:

*e2 e3*

.....

So the white player can write the first move to the file and then start waiting for the black player process to generate the next line, and vice versa.

**Good Luck!**