Lab 3

Direction: Submit the typed source code from git url.

Tic Tac Toe

For this lab, you will define essential functions to play Tic-Tac-Toe which is implemented by using an array named *grid* that consists of nine (9) elements. The indices association with the positions on the board are:

```
0  1  2
3  4  5
6  7  8
```

Your group will have to rewrite the given functions so that they perform their descriptions correctly.

I.

Name:	`initialize()`
Parameter(s):	nothing
Return:	nothing
Description:	assigns `'-'` to each element of *grid*.

II.

Name:	`verticalWinner()`
Parameter(s):	nothing
Return:	bool
Description:	returns true if any vertical line consists of the same non-blank character; otherwise, it returns false.

III.

Name:	`horizontalWinner()`
Parameter(s):	nothing
Return:	bool
Description:	returns true if any horizontal line consists of the same non-blank character; otherwise, it returns false.

IV.

Name:	`diagonalWinner()`
Parameter(s):	nothing
Return:	bool
Description:	returns true if any diagonal line consists of the same non-blank character; otherwise, it returns false.

V.

Name:	`winner()`
Parameter(s):	nothing
Return:	bool
Description:	returns true if any vertical, horizontal, or diagonal line consists of the same non-blank character; otherwise, it returns false.

VI.

Name:	`hasMove()`
Parameter(s):	nothing
Return:	bool
Description:	returns true if any element of *grid* is equal to the blank character; otherwise, it returns false.

VII.

Name:	`makeMove()`
Parameter(s):	*position*: `int` *token*: `char`
Return:	bool
Description:	if the element of *grid* associated with *position* is a blank character, it is assigned the variable *token* and returns true. Otherwise, it just returns false. Positions from top-left to bottom-right are 1 through 9.

VIII.

Name:	`board()`
Parameter(s):	nothing
Return:	string
Description:	returns a string that displays the values of the elements of *grid* in the same formats and order as the image above with a newline before and after the image.