

Lab 03 - Don't Repeat Yourself but Delegate

Instructions:

- The lab requires completing a few tasks.
- Your submissions must be submitted to the GitHub repository in the Lab03 directory.
- Cheating of any kind is prohibited and will not be tolerated.
- Violating and failing to follow any of the rules will result in an automatic zero (0) for the lab.

TO ACKNOWLEDGE THAT YOU HAVE READ AND UNDERSTOOD THE INSTRUCTIONS ABOVE, AT THE BEGINNING OF YOUR SUBMISSION(S), ADD A COMMENT THAT CONSISTS OF YOUR NAME AND THE DATE.

Grading

Task	Maximum Points	Points Earned
1	2.5	
2	2.5	
Total	5	

Note: solutions will be provided for tasks colored blue only.

Your objective is to create a Tic-Tac-Toe game using functions. The tokens for the players are **X** and **O**, respectively, and the grid have three tokens on each of the three rows with them separated by a comma as follows

```
:  :  
:  :  
:  :
```

Your program cannot use global variables and **must**

1. Define a function that displays the game grid and the current player.
2. Define a function that continually prompts the user to a valid grid position until one is received where a valid grid position is a valid unoccupied grid coordinate, and then, populates the grid position with the current player's token.
3. Define a function that checks if a player won the game.
4. Define a function that checks if the game ended; either a player won or no more moves are available.
5. Define a function that initializes the game and runs until the game ends.

Task 1

Write the above program in C++.

Task 2

Write the above program in Ruby.

Extra Credit

Modify both programs to allow each player to erase an entire column or row at most once as a special move.