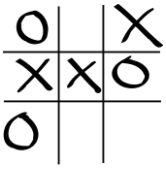
Dynamic Programming Languages – Python Assignment

Python Assignment: 30%

Please read the requirements and submission details carefully.

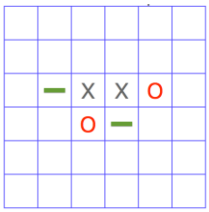
You are required to create a variation of the Tic Tac Toe (also known as X's and O's) game. Usually, this is a two-player game, played on a grid of 3×3 cells. Two players place "X" and "O" alternately into the empty cells. The goal is to get three connected "X" or "O" in the horizontal, vertical or diagonal direction. For example:



The *variation* of the game you are required to create will be a three-player version and played on a square grid of variable size. You can use the '-'(minus) symbol for the third player. As with the regular game, any one of the three players can win when they get three connected symbols anywhere on the grid.

When the program is started it should ask for the user to enter a number. This number will determine the size of the grid. For example if the user enters 6, the game will have a 6 by 6 grid. It should be possible to enter values between 5 and 10. The program should display the board and prompt each user in turn for their move. The program should validate each move and handle any incorrect input. Upon winning or a draw of the game, an appropriate message should be displayed acknowledging how the game has ended.

See below for a sample illustration of how your game may look like. It is up to you to determine how best to design and implement your game.



Submission Details:

Please email all you Python *source code* and a short *document* describing your application and any design decisions you made to **viacheslav.filonenko@dit.ie** no later than **18th/21st October, 17:00**. Please use the following text as the subject line for your submission email: "*Python Assignment*".

All source code must be your own. Late submissions will not be accepted.