A logo of a egyptian god

Description automatically generatedA computer and earth with arrows

Description automatically generated with medium confidence

Object Oriented Programming Course (CS213) Under Supervision Eng. Rana Abdelkader

Group: S21 Assignment 3

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| **Name** | **ID** | **Tasks** |
| **Ghassan Tarek Elgendy** | 20220239 | Four-in-a-row Game |
| **Rawan Ehab Ammar** | 20220133 | Pyramic Tic-Tac-Toe |
| **Jana Mohamed Ramadan** | 20220470 | 5 x 5 Tic Tac Toe |

**Pyramic Tic-Tac-Toe:**

1. Constructor:

* The constructor initializes an empty 3\*5 array to make the basic dimensions of the pyramid.
* All elements in the array are initialized to the ascii of 0 which is a blank space.

1. Display\_board():

* Function that prints the content of the array in the relevant parts of the pyramid.
* The pyramic shape is made using the equation 2\*i+1.
* If the content of the elemnt is a blank space the index is printed, else the content of the cell is printed.

1. Update\_board():

* Takes the user input and updates the elements of the array if there are no other elements already in that cell and it is a valid cell.
* Increments the number of moves counter to keep track.

1. Is\_winner():

* Function to check after every move if there is a winner or not.
* It iterates over each cell if there are three consecutive elements of the same label In any direction , then there is a winner.

1. Is\_draw():

* Function to check if the game is a draw
* If 9 moves have been made and there is no winner yet, then it’s a draw.

1. Game\_is\_over():

* Returns true when the game is finished

1. initPyramicTicTacToe():

* Used to initialize the pyramic Tic-Tac-Toe game in source file.

**Four-in-a-row:**

**5 x 5 Tic Tac Toe:**

**Code quality review:**