

Read Me file

The python file consists of two games

1. Tic Tac Toe
2. Open Field Tic Tac Toe

Both the games share the same functions.

The class Problem is the problem class for Tic Tac Toe and Problem1 is for Open Field Tic Tac Toe.

If we run the python file a pygame screen will open asking whether you want Tic Tac Toe or Open Field Tic Tac Toe.

Both the games can be solved in the following methods

1. Min Max
2. Min Max with alpha beta pruning
3. Min Max with depth limit
4. Min Max with depth limit and alpha beta pruning
5. Experimental Min Max variant

If we select Tic Tac Toe, it will ask for method or if we use Open Field Tic Tac Toe it will first ask for the grid size and the number of consecutive marks to win, then the method.

Note that **Min Max and Min Max with alpha beta pruning works slow.**

In every game the **computer makes the first move.**

If computer wins it will print "I won" if neither wins it prints "Draw" otherwise "U won"

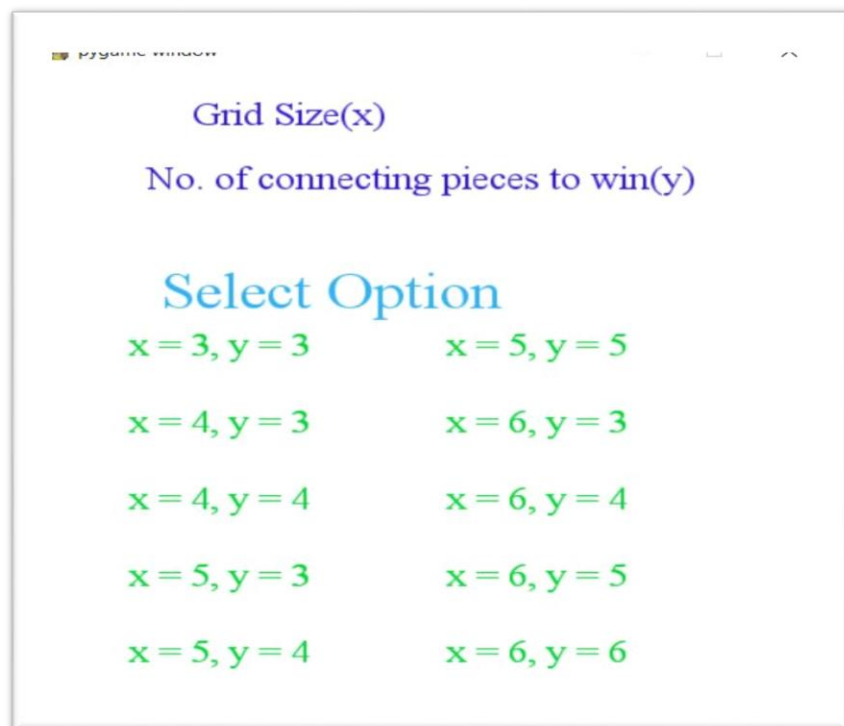
We have to rerun the code to play again.

Initially the screen appears as

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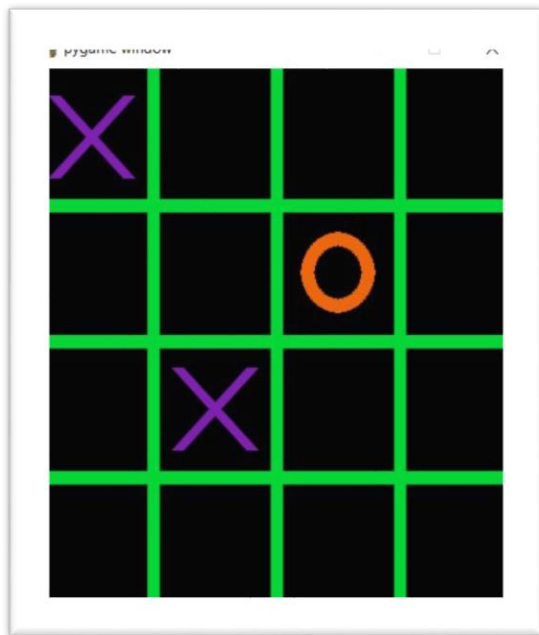
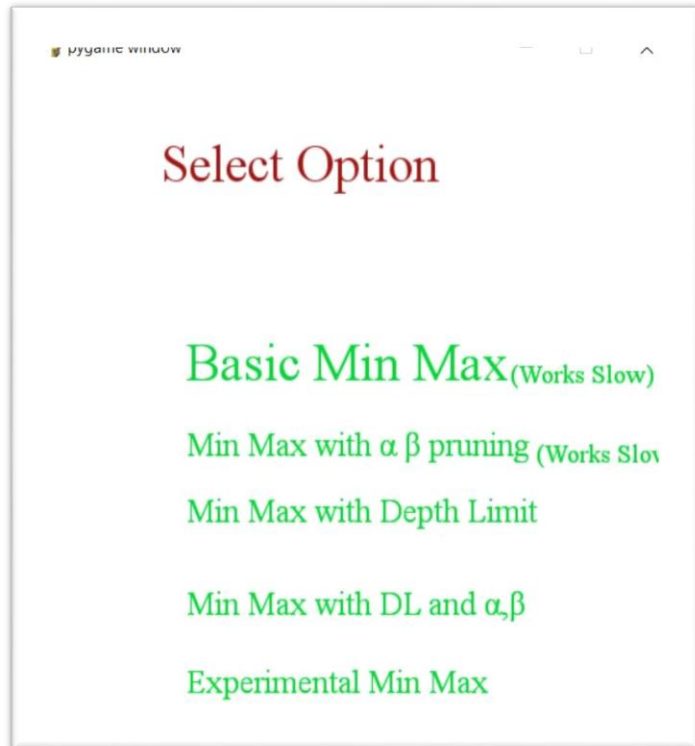
We have to select tic tac toe or open field tic tac toe if we select open field tic tac toe we have to select the grid size and win number.



If we select option then we can choose the method. In normal tic tac toe we can directly choose the method.

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Once we choose the method we will get the tic tac toe board of size 3*3 (if normal tic tac toe) or the board of the selected size in open field tic tac toe.



The squares we selected will be marked with circle and the squares computer marked will be cross.

