Experiment - 5

Minimax Algorithm

AIM

To implement MINIMAX algorithm problem using Python.

PROGRAM

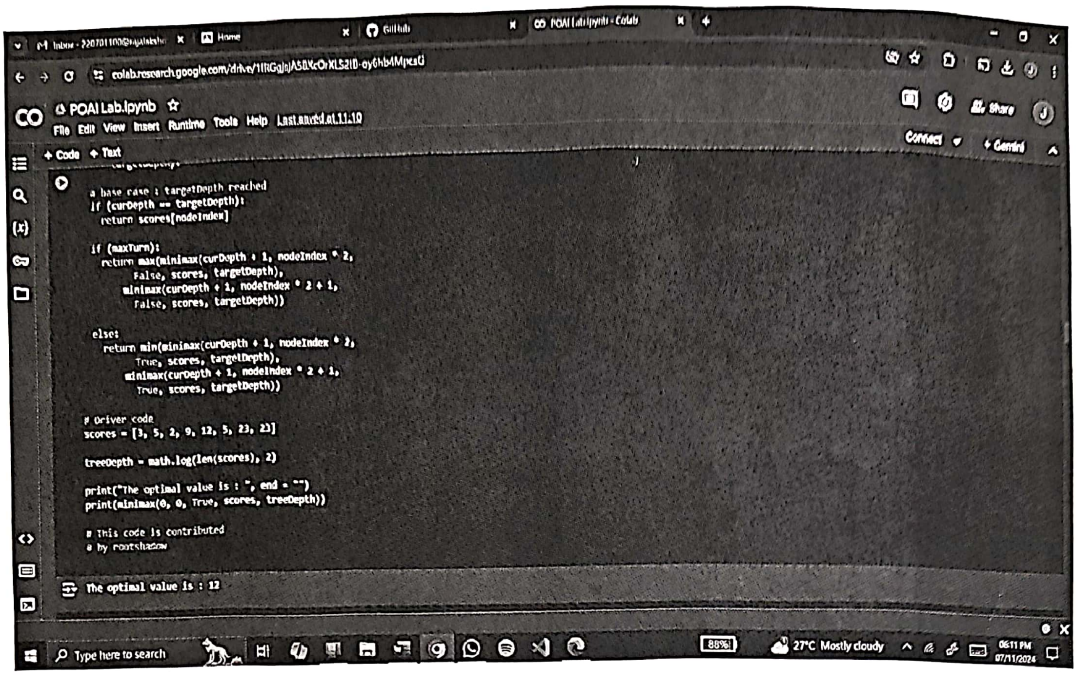
```
import math

def minimax(curDepth, nodeIndex, maxTurn, scores,
                                        targetDepth):
    if (curDepth == targetDepth):
        return scores[nodeIndex]
    if (maxTurn):
        return max(minimax(curDepth+1,
                nodeIndex*2,
            False, scores, targetDepth),
        minimax(curDepth+1, nodeIndex*2+1,
            False, scores, targetDepth))
    else:
        return min(minimax(curDepth+1, nodeIndex
            *2, True, scores, targetDepth),
        minimax(curDepth+1, nodeIndex*2+1,
            True, scores, targetDepth))

scores = [3,5,2,9,12,5,23,23]
treeDepth = math.log(len(scores),2)
print("The optimal value is : ", end="")
print(minimax(0,0, True, scores, treeDepth))
```

OUTPUT

The optimal value is : 12



RESULT

Thus, the program for minimax is successfully executed and the output is verified.