Experiment 13: Min Max Algorithm

Aim:

Implement an Algorithm in Python for solving Min Max Algorithm

Python Program:

```python
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:

Code has been Implemented successfully.