**LABTASK 4 MIN MAX**

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import math

import random

def minmax(curDepth, nodeIndex, maxTurn, scores, targetDepth):

if(curDepth == targetDepth):

return scores[nodeIndex]

if(maxTurn):

return max (minmax(curDepth+1, nodeIndex\*2, False, scores, targetDepth), minmax(curDepth+1, nodeIndex\*2+1, False, scores, targetDepth))

else:

return min (minmax(curDepth+1, nodeIndex\*2, True, scores, targetDepth), minmax(curDepth+1, nodeIndex\*2+1, True, scores, targetDepth))

scores = [12,5,2,9,3,5,23,23]

scores1 = [12,5,2,2,3,34,23,4]

treeDepth = math.log(len(scores),2)

print("Solution for Question 1")

print("Values are:",scores)

print("the optimal value is : ", end="")

print(minmax(0,0,True,scores,treeDepth))

print("\n")

print("Solution for Question 2")

print("Values are:",scores1)

print("the optimal value is : ", end="")

print(minmax(0,0,True,scores1,treeDepth))

**OUTPUT:**

