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**Started on** Tuesday, 30 April 2024, 2:02 PM

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**State** Finished

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**Completed on** Tuesday, 30 April 2024, 2:29 PM

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**Time taken** 26 mins 58 secs

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**Grade** **80.00** out of 100.00

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## Question 1

Correct

Mark 20.00 out of 20.00

## Print All Paths With Minimum Jumps

1. You are given a number N representing number of elements.
2. You are given N space separated numbers (ELE : elements).
3. Your task is to find & print
  - 3.1) "MINIMUM JUMPS" need from 0th step to (n-1)th step.
  - 3.2) all configurations of "MINIMUM JUMPS".

NOTE: Checkout sample question/solution video inorder to have more insight.

## For example:

Test	Input	Result
minJumps(arr)	10	0 -> 3 -> 5 -> 6 -> 9
	3	0 -> 3 -> 5 -> 7 -> 9
	3	
	0	
	2	
	1	
	2	
	4	
	2	
	0	
	0	

Answer: (penalty regime: 0 %)

Reset answer

```

1 from queue import Queue
2 import sys
3 class Pair(object):
4     idx = 0
5     psf = ""
6     jmps = 0
7     def __init__(self, idx, psf, jmps):
8
9         self.idx = idx
10        self.psf = psf
11        self.jmps = jmps
12    def minJumps(arr):
13        MAX_VALUE = sys.maxsize
14        dp = [MAX_VALUE for i in range(len(arr))]
15        n = len(dp)
16        dp[n - 1] = 0
17
18        for i in range(n - 2, -1, -1):
19            steps = arr[i]
20            minimum = MAX_VALUE
21
22            for j in range(1, steps + 1, 1):

```

	Test	Input	Expected	Got	
✓	minJumps(arr)	10	0 -> 3 -> 5 -> 6 -> 9	0 -> 3 -> 5 -> 6 -> 9	✓
		3	0 -> 3 -> 5 -> 7 -> 9	0 -> 3 -> 5 -> 7 -> 9	
		3			
		0			
		2			
		1			
		2			
		4			
		2			
		0			
		0			

	Test	Input	Expected	Got	
✓	minJumps(arr)	7 5 5 0 3 2 3 6	0 -> 1 -> 6 0 -> 3 -> 6 0 -> 4 -> 6 0 -> 5 -> 6	0 -> 1 -> 6 0 -> 3 -> 6 0 -> 4 -> 6 0 -> 5 -> 6	✓

Passed all tests! ✓

**Correct**

Marks for this submission: 20.00/20.00.

## Question 2

Correct

Mark 20.00 out of 20.00

Write a python program to find the maximum contiguous subarray on the given float array using kadane's algorithm.

**For example:**

Test	Input	Result
s.maxSubArray(A)	5 -9.6 -3.5 6.3 8.31 9.2	The sum of contiguous sublist with the largest sum is 23.8

**Answer:** (penalty regime: 0 %)

Reset answer

```

1 class Solution:
2     def maxSubArray(self,A):
3         res=0
4         mm= -10000
5         for v in A:
6             res+=v
7             mm=max(mm,res)
8         if res<0:
9             res=0
10        return mm
11 A=[]
12 n=int(input())
13 for i in range(n):
14     A.append(float(input()))
15 s=Solution()
16 print("The sum of contiguous sublist with the largest sum is {:.1f}".format(s.maxSubArray(A)))
17

```

	Test	Input	Expected	Got	
✓	s.maxSubArray(A)	5 -9.6 -3.5 6.3 8.31 9.2	The sum of contiguous sublist with the largest sum is 23.8	The sum of contiguous sublist with the largest sum is 23.8	✓
✓	s.maxSubArray(A)	7 2.3 6.5 4.6 -7.8 -2.8 -1.6 9.8	The sum of contiguous sublist with the largest sum is 13.4	The sum of contiguous sublist with the largest sum is 13.4	✓

Passed all tests! ✓

Correct

Marks for this submission: 20.00/20.00.

Question 3

Incorrect

Mark 0.00 out of 20.00

**SUBSET SUM PROBLEM**

Given a set of positive integers, and a value sum, determine that the sum of the subset of a given set is equal to the given sum.

Write the program for subset sum problem.

**INPUT**

- 1.no of elements
- 2.Input the given elements
- 3.Get the target sum

**OUTPUT**

True , if subset with required sum is found

False , if subset with required sum is not found

For example:

Input	Result
5	4
4	16
16	5
5	23
23	12
12	True,subset found
9	

Answer: (penalty regime: 0 %)

Reset answer

```
1 def SubsetSum(a,i,sum,target,n):
2     if(SubsetSum(a,i,sum,target,n)==False):
3
4
5     # Write your code here
6
7
8
9
10
11
12
13
14 a=[]
15 size=int(input())
16 for i in range(size):
17     x=int(input())
18     a.append(x)
19
20 target=int(input())
21 n=len(a)
22 if(SubsetSum(a,i,sum,target,n)==True):
```

Syntax Error(s)

Sorry: IndentationError: expected an indented block (\_\_tester\_\_.python3, line 14)

Incorrect

Marks for this submission: 0.00/20.00.

Question 4

Correct

Mark 20.00 out of 20.00

Create a Dynamic Programming python Implementation of Coin Change Problem.

For example:

Test	Input	Result
count(arr, m, n)	3 4 1 2 3	4

Answer: (penalty regime: 0 %)

Reset answer

```

1 def count(S, m, n):
2     table = [[0 for x in range(m)] for x in range(n+1)]
3     for i in range(m):
4         table[0][i] = 1
5     for i in range(1, n+1):
6         for j in range(m):
7             x = table[i - S[j]][j] if i-S[j] >= 0 else 0
8             y = table[i][j-1] if j >= 1 else 0
9             table[i][j] = x + y
10    return table[n][m-1]
11 arr = []
12 m = int(input())
13 n = int(input())
14 for i in range(m):
15     arr.append(int(input()))
16 print(count(arr, m, n))

```

	Test	Input	Expected	Got	
✓	count(arr, m, n)	3 4 1 2 3	4	4	✓
✓	count(arr, m, n)	3 16 1 2 5	20	20	✓

Passed all tests! ✓

Correct

Marks for this submission: 20.00/20.00.

## Question 5

Correct

Mark 20.00 out of 20.00

Write a Python program using A Naive recursive implementation of Minimum Cost Path Problem.

For example:

Input	Result
3 3	8

Answer: (penalty regime: 0 %)

Reset answer

```

1 R = int(input())
2 C = int(input())
3 import sys
4 def minCost(cost, m, n):
5     if (n < 0 or m < 0):
6         return sys.maxsize
7     elif (m == 0 and n == 0):
8         return cost[m][n]
9     else:
10        return cost[m][n] + min( minCost(cost, m-1, n-1),minCost(cost, m-1, n),minCost(cost, m, n-1)
11 def min(x, y, z):
12     if (x < y):
13         return x if (x < z) else z
14     else:
15         return y if (y < z) else z
16 cost= [ [1, 2, 3],
17         [4, 8, 2],
18         [1, 5, 3] ]
19 print(minCost(cost, R-1, C-1))

```

	Input	Expected	Got	
✓	3 3	8	8	✓

Passed all tests! ✓

Correct

Marks for this submission: 20.00/20.00.