Started on	Thursday, 15 May 2025, 9:24 AM
State	Finished
Completed on	Thursday, 15 May 2025, 11:24 AM
Time taken	2 hours
Grade	**80.00** out of 100.00

Question **1**

Correct

Mark 20.00 out of 20.00

Write a Python program to Implement Minimum cost path in a Directed Graph

For example:

Test	Result
`getMinPathSum(graph, visited, necessary, source, dest, 0);`	12

Answer: (penalty regime: 0 %)

Reset answer

```
minSum = 1000000000
def getMinPathSum(graph, visited, necessary,
                  src, dest, currSum):
    global minSum
    if (src == dest):
        flag = True;
        for i in necessary:
            if (not visited[i]):
                flag = False;
                break;
        if (flag):
            minSum = min(minSum, currSum);
        return;

    else:
        visited[src] = True;
        for node in graph[src]:
            if not visited[node[0]]:
                visited[node[0]] = True;
                getMinPathSum(graph, visited,
                              necessary, node[0],
                              dest, currSum + node[1]);
```

	Test	Expected	Got	
✔	`getMinPathSum(graph, visited, necessary, source, dest, 0);`	12	12	✔

Passed all tests! ✔

Correct

Marks for this submission: 20.00/20.00.

Question **2**

Correct

Mark 20.00 out of 20.00

Create a Python Function to find the total number of distinct ways to get a change of 'target' from an unlimited supply of coins in set 'S'.

For example:

Test	Input	Result
count(S, len(S) - 1, target)	3 4 1 2 3	The total number of ways to get the desired change is 4

Answer: (penalty regime: 0 %)

Reset answer

```
def count(S, n, target):
    if target == 0:
        return 1
    if target < 0 or n < 0:
        return 0
    incl = count(S, n, target - S[n])
    excl = count(S, n - 1, target)
    return incl + excl
if __name__ == '__main__':
    S = []#[1, 2, 3]
    n=int(input())
    target = int(input())
    for i in range(n):
        S.append(int(input()))
    print('The total number of ways to get the desired change is',
        count(S, len(S) - 1, target))
```

	Test	Input	Expected	Got	
✔	count(S, len(S) - 1, target)	3 4 1 2 3	The total number of ways to get the desired change is 4	The total number of ways to get the desired change is 4	✔
✔	count(S, len(S) - 1, target)	3 11 1 2 5	The total number of ways to get the desired change is 11	The total number of ways to get the desired change is 11	✔

Passed all tests! ✔

Correct

Marks for this submission: 20.00/20.00.

Question **3**

Not answered

Mark 0.00 out of 20.00

Create a python program to find the length of longest common subsequence using naive recursive method

For example:

Input	Result
AGGTAB GXTXAYB	Length of LCS is 4

Answer: (penalty regime: 0 %)

```
1
```

Question **4**

Correct

Mark 20.00 out of 20.00

Given an integer array `nums`, find the contiguous subarray (containing at least one number) which has the largest sum and return *its sum*.

A **subarray** is a **contiguous** part of an array.

Example 1:

```
Input: nums = [-2,1,-3,4,-1,2,1,-5,4]
Output: 6
Explanation: [4,-1,2,1] has the largest sum = 6.
```

For example:

Test	Input	Result
s.maxSubArray(A)	9 -2 1 -3 4 -1 2 1 -5 4	The sum of contiguous sublist with the largest sum is 6

Answer: (penalty regime: 0 %)

Reset answer

```
class Solution:
    def maxSubArray(self,A):
        ############ Add your Code here
        #Start here
        res=0
        mm= -10000
        for v in A:
            res+=v
            mm=max(mm,res)
            if res<0:
                res=0
        return mm
        #End here
A =[]
n=int(input())
for i in range(n):
    A.append(int(input()))
s=Solution()
print("The sum of contiguous sublist with the largest sum is",s.maxSubArray(A))
```

	Test	Input	Expected	Got	
✔	s.maxSubArray(A)	9 -2 1 -3 4 -1 2 1 -5 4	The sum of contiguous sublist with the largest sum is 6	The sum of contiguous sublist with the largest sum is 6	✔

	Test	Input	Expected	Got	
✔	s.maxSubArray(A)	5 5 4 -1 7 8	The sum of contiguous sublist with the largest sum is 23	The sum of contiguous sublist with the largest sum is 23	✔

Passed all tests! ✔

Correct

Marks for this submission: 20.00/20.00.

Question **5**

Correct

Mark 20.00 out of 20.00

Create a python program to find Minimum number of jumps to reach end of the array using naive method(recursion) using float values

For example:

Test	Input	Result
minJumps(arr, 0, n-1)	6 2.3 7.4 6.3 1.5 8.2 0.1	Minimum number of jumps to reach end is 2

Answer: (penalty regime: 0 %)

Reset answer

```
def minJumps(arr, l, h):
    if (h == l):
        return 0
    if (arr[l] == 0):
        return float('inf')
    min = float('inf')
    for i in range(l + 1, h + 1):
        if (i < l + arr[l] + 1):
            jumps = minJumps(arr, i, h)
            if (jumps != float('inf') and
                        jumps + 1 < min):
                min = jumps + 1

    return min
arr = []
n = int(input())
for i in range(n):
    arr.append(float(input()))
print('Minimum number of jumps to reach','end is', minJumps(arr, 0, n-1))
```

	Test	Input	Expected	Got	
✔	minJumps(arr, 0, n-1)	6 2.3 7.4 6.3 1.5 8.2 0.1	Minimum number of jumps to reach end is 2	Minimum number of jumps to reach end is 2	✔
✔	minJumps(arr, 0, n-1)	10 3.2 3.2 5 6.2 4.9 1.2 5.0 7.3 4.6 6.2	Minimum number of jumps to reach end is 2	Minimum number of jumps to reach end is 2	✔

Passed all tests! ✔

Correct

Marks for this submission: 20.00/20.00.