

TT DS PYTHON MODULE-22

Started on	Saturday, 28 Septem
State	Finished
Completed on	Saturday, 28 Septem
Time taken	6 mins 20 secs
Grade	80.00 out of 100.00

Question **1**

Correct

Mark 20.00 out of 20.00

Flag question

LONGEST COMMON SUBSTRING PROBLEM

Given two strings 'X' and 'Y', find the length of the longest common substring.

Answer: (penalty regime: 0 %)

```

1 def LCS(X, Y):
2     maxLen = 0
3     endir = 0
4     looku = 0
5     for i in range(len(X)):
6         for j in range(len(Y)):
7             if X[i] == Y[j]:
8                 looku += 1
9                 endir = i
10                maxLen = max(maxLen, looku)
11            else:
12                looku = 0
13    return maxLen
14
15 X = input()
16 Y = input()
17 m = len(X)
18 n = len(Y)
19 sub=LCS(X, Y)
20 print("Length of the longest common substring is:", sub)
21

```

	Input	Expected Output
	ABC BABA	Length of the longest common substring is: 3
	abcdxyz bcxyz	Length of the longest common substring is: 5

xyzabcd

Passed all tests!

Correct

Marks for this submission:
20.00/20.00.

Question **2**

Correct

Mark 20.00 out of 20.00

Flag question

LONGEST PALINDROMIC SUBSEQUENCE

Given a sequence, find the length of the longest palindromic subsequence in it.

For example:

Input	Result
ABBDCACB	The length o

Answer: (penalty regime: 0 %)

```

1 dp = [[-1]
2 def lps(s
3     if (r
4         r
5         if (c
6         r
7         if (s
8         c
9         r
10        else:
11            c
12            r
13 seq = inp
14 n = len(s
15 s2 = seq
16 s2 = s2[:
17 print(f"1

```

Input	Expe
ABBDACAB	The 1
BBABCBCAB	The 1
cbbd	The 1
abbab	The 1

Passed all tests!

Correct

Marks for this submission: 20.00/20.00.

Question **3**

Correct

Mark 20.00 out of 20.00

Flag question

Write a Python Program to find longest common subsequence using Dynamic Programming

Answer: (penalty regime: 0 %)

```

1 def lcs(s
2     m = 1
3     n = 1
4     matri
5     for i
6         f
7
8
9
10
11
12
13     retur
14 str1 = ir
15 str2 = ir
16 lcs_lengt
17 print("Le

```

	Input	Expected
	abcbdad bdcaba	Length 7
	treehouse elephant	Length 8
	AGGTAB GXTXAYB	Length 9

Passed all tests!

Correct

Marks for this submission:
20.00/20.00.

Question 4

Not answered

Mark 0.00 out of 20.00

Flag question

Write a python program to sort the first half of the list using merge sort

For example:

Input	Result
6	Given array is
12	12 11 13 5 6 7
11	
13	Sorted array is
5	5 6 7 12 11 13
6	
7	

Answer: (penalty regime: 0 %)

Question **5**

Correct

Mark 20.00 out of 20.00

Flag question

Create a python program to compute the edit distance between two given strings using iterative method.

For example:

Input	Result
kitten sitting	3

Answer: (penalty regime: 0 %)

```
1 def LD(s1, s2):
2     if s1 == s2:
3         return len(s1)
4     if len(s1) == 0:
5         return len(s2)
6     if len(s2) == 0:
7         return len(s1)
8     else:
9         c = len(s1) + len(s2)
10        res = [0] * c
11        for i in range(c):
12            if i % len(s1) == 0:
13                res[i] = len(s2)
14            elif i % len(s2) == 0:
15                res[i] = len(s1)
16        str1=input("Enter string 1: ")
17        str2=input("Enter string 2: ")
18        print(LD(str1, str2))
```

	Input	Expect
	kitten sitting	3
	medium median	2

Passed all tests!

Correct

Marks for this
submission:
20.00/20.00.

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