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Started on	Monday, 10 June 2024, 10:13 PM
State	Finished
Completed on	Monday, 10 June 2024, 11:02 PM
Time taken	49 mins 32 secs
Marks	5.00/5.00
Grade	100.00 out of 100.00

Question 1

Correct

Mark 1.00 out of 1.00

Coders here is a simple task for you, Given string str. Your task is to check whether it is a binary string or not by using python [set](#).

Examples:

Input: str = "01010101010"

Output: Yes

Input: str = "REC101"

Output: No

For example:

Input	Result
01010101010	Yes
010101 10101	No

Answer: (penalty regime: 0 %)

```

1 a=input()
2 s=set(a)
3 if s=="0","1":
4     print("Yes")
5 else:
6     print("No")

```

	Input	Expected	Got	
✓	01010101010	Yes	Yes	✓
✓	REC123	No	No	✓
✓	010101 10101	No	No	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question **2**

Correct

Mark 1.00 out of 1.00

Given a tuple and a positive integer k, the task is to find the count of distinct pairs in the tuple whose sum is equal to **K**.

Examples:**Input:** t = (5, 6, 5, 7, 7, 8), K = 13**Output:** 2**Explanation:**

Pairs with sum K(= 13) are {(5, 8), (6, 7), (6, 7)}.

Therefore, distinct pairs with sum K(= 13) are { (5, 8), (6, 7) }.

Therefore, the required output is 2.

For example:

Input	Result
1,2,1,2,5 3	1
1,2 0	0

Answer: (penalty regime: 0 %)

```

1 t=tuple(map(int,input().split(','))
2 k=int(input())
3 s=set(t)
4 count=0
5 for x in s:
6     if k-x in s:
7         count+=1
8 result=count//2
9 print(result)

```

	Input	Expected	Got	
✓	5,6,5,7,7,8 13	2	2	✓
✓	1,2,1,2,5 3	1	1	✓
✓	1,2 0	0	0	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question 3

Correct

Mark 1.00 out of 1.00

There is a malfunctioning keyboard where some letter keys do not work. All other keys on the keyboard work properly.

Given a string text of words separated by a single space (no leading or trailing spaces) and a string brokenLetters of all distinct letter keys that are broken, return the number of words in text you can fully type using this keyboard.

Example 1:

Input: text = "hello world", brokenLetters = "ad"

Output:

1

Explanation: We cannot type "world" because the 'd' key is broken.

For example:

Input	Result
hello world ad	1
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Answer: (penalty regime: 0 %)

```

1 def count_words(t,b):
2     broken=set(b.lower())
3     words=t.split()
4     count=0
5     for word in words:
6         if all(letter.lower() not
7             count+=1
8     return count
9 t=input()
10 b=input()
11 result=count_words(t,b)
12 print(result)

```

	Input	Expected	Got	
✓	hello world ad	1	1	✓
✓	Welcome to REC e	1	1	✓
✓	Faculty Upskilling in Python Programming ak	2	2	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question 4

Correct

Mark 1.00 out of 1.00

Given an array of integers `nums` containing $n + 1$ integers where each integer is in the range `[1, n]` inclusive. There is only **one repeated number** in `nums`, return *this repeated number*. Solve the problem using [set](#).

Example 1:Input: `nums = [1,3,4,2,2]`

Output: 2

Example 2:Input: `nums = [3,1,3,4,2]`

Output: 3

For example:

Input	Result
1 3 4 4 2	4

Answer: (penalty regime: 0 %)

```

1 | nums=input().split()
2 | for i in nums:
3 |     if nums.count(i)>1:
4 |         print(i)
5 |         break

```

	Input	Expected	Got	
✓	1 3 4 4 2	4	4	✓
✓	1 2 2 3 4 5 6 7	2	2	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question 5

Correct

Mark 1.00 out of 1.00

The **DNA sequence** is composed of a series of nucleotides abbreviated as 'A', 'C', 'G', and 'T'.

- For example, "ACGAATTCG" is a **DNA sequence**.

When studying **DNA**, it is useful to identify repeated sequences within the DNA.

Given a string `s` that represents a **DNA sequence**, return all the **10-letter-long** sequences (substrings) that occur more than once in a DNA molecule. You may return the answer in **any order**.

Example 1:

Input: `s = "AAAAACCCCCAAAAACCCCCAAAAGGGTTT"`

Output: `["AAAAACCCCC", "CCCCAAAAA"]`

Example 2:

Input: `s = "AAAAAAAAAAAA"`

Output: `["AAAAAAAAA"]`

For example:

Input	Result
AAAAACCCCCAAAAACCCCCAAAAGGGTTT	AAAAACCCCC CCCCAAAAA

Answer: (penalty regime: 0 %)

```

1 s=input()
2 result=[]
3 for i in range(len(s)-9):
4     a=s[i:i+10]
5     if a in s[i+1:]:
6         if a not in result:
7             result.append(a)
8
9 print(*result,sep="\n")

```

	Input	Expected	Got	
✓	AAAAACCCCCAAAAACCCCCAAAAGGGTTT	AAAAACCCCC CCCCAAAAA	AAAAACCCCC CCCCAAAAA	✓

	Input	Expected	Got	
✓	AAAAAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

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