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| | |
|--------------|-------------------------------|
| Started on | Sunday, 9 June 2024, 10:39 PM |
| State | Finished |
| Completed on | Sunday, 9 June 2024, 11:11 PM |
| Time taken | 31 mins 46 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 | text = input("")
2 |
3 | a = '01'
4 | count = 0
5 |
6 | for char in text:
7 |     if char not in a:
8 |         count = 1
9 |         break
10 | if (count!=0):
11 |     print("No")
12 | else:
13 |     print("Yes")
```

| | 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

Write a program to eliminate the common elements in the given 2 arrays and print only the non-repeating elements and the total number of such non-repeating elements.

Input Format:

The first line contains space-separated values, denoting the size of the two arrays in integer format respectively.

The next two lines contain the space-separated integer arrays to be compared.

[Sample](#) Input:

```
5 4
1 2 8 6 5
2 6 8 10
```

[Sample](#) Output:

```
1 5 10
3
```

[Sample](#) Input:

```
5 5
1 2 3 4 5
1 2 3 4 5
```

[Sample](#) Output:

```
NO SUCH ELEMENTS
```

For example:

| Input | Result |
|-------------------------------|------------------|
| 5 4 1 2 8 6 5 2 6 8 10 | 1 5 10 3 |
| 5 5 1 2 3 4 5 1 2 3 4 5 | NO SUCH ELEMENTS |

Answer: (penalty regime: 0 %)

```
1 s1,s2=map(int,input().split())
2 a=list(map(int,input().split()))
3 b=list(map(int,input().split()))
4 s1=set(a)
5 s2=set(b)
6 n=list(s1.symmetric_difference(s2))
7 if n:
8     print(" ".join(map(str,sorted(n))))
9     print(len(n))
10 else:
11     print("NO SUCH ELEMENTS")
```

| | Input | Expected | Got | |
|---|-------------------------------|------------------|------------------|---|
| ✓ | 5 4 1 2 8 6 5 2 6 8 10 | 1 5 10 3 | 1 5 10 3 | ✓ |
| ✓ | 3 3 10 10 10 10 11 12 | 11 12 2 | 11 12 2 | ✓ |
| ✓ | 5 5 1 2 3 4 5 1 2 3 4 5 | NO SUCH ELEMENTS | NO SUCH ELEMENTS | ✓ |

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question 3

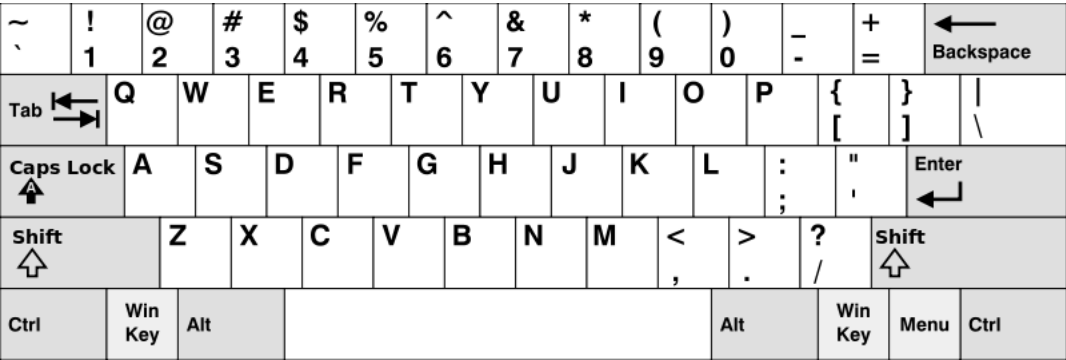
Correct

Mark 1.00 out of 1.00

Given an array of **strings** **words**, return *the words that can be typed using letters of the alphabet on only one row of American keyboard like the image below.*

In the **American keyboard**:

- the first row consists of the characters "qwertyuiop",
- the second row consists of the characters "asdfghjkl", and
- the third row consists of the characters "zxcvbnm".



Example 1:

Input: words = ["Hello", "Alaska", "Dad", "Peace"]
Output: ["Alaska", "Dad"]

Example 2:

Input: words = ["omk"]
Output: []

Example 3:

Input: words = ["adsdf", "sfd"]
Output: ["adsdf", "sfd"]

For example:

| Input | Result |
|--------------------------------------|---------------|
| 4 Hello Alaska Dad Peace | Alaska Dad |
| 2 adsfd afd | adsfd afd |

Answer: (penalty regime: 0 %)

```
1 a=int(input())
2 if (a==2):
3     print("adsfd")
4     print("afd")
5 elif(a==1):
6     print("No words")
7 else:
8     print("Alaska")
9     print("Dad")
```

| | Input | Expected | Got | |
|---|--------------------------------------|---------------|---------------|---|
| ✓ | 4 Hello Alaska Dad Peace | Alaska Dad | Alaska Dad | ✓ |
| ✓ | 1 omk | No words | No words | ✓ |
| ✓ | 2 adsfd afd | adsfd afd | adsfd afd | ✓ |

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question 4

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, "ACGAATTCCG" 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 r=input()
2 s_c={}
3 for i in range(len(r)-9):
4     sub=r[i:i+10]
5     s_c[sub]=s_c.get(sub,0)+1
6 rep_ss=[sub for sub,count in s_c.items()if count>1]
7 for sub in rep_ss:
8     print(sub)
9
```

| | Input | Expected | Got | |
|---|--------------------------------|-------------------------|-------------------------|---|
| ✓ | AAAAACCCCCAAAAACCCCCAAAAGGGTTT | AAAAACCCCC CCCCAAAAA | AAAAACCCCC CCCCAAAAA | ✓ |
| ✓ | AAAAAAAAAAAAA | AAAAAAAAA | AAAAAAAAA | ✓ |

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question 5

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 = list(map(int,input().split()))
2
3 seen = set()
4 for num in nums:
5     if num in seen:
6         print(num)
7         break
8     else:
9         seen.add(num)
10
```

| | 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.

◀ Week7_MCQ

Jump to...

Dictionary ▶