

# GE19211 / GE23233 / GE23231 - PSPP/PUP

Dashboard / My courses / PSPP/PUP / Experiments based on Tuples, Sets and its operations / Week7\_Coding

## Quiz navigation

1	2	3	4	5
✓	✓	✓	✓	✓

Show one page at a time

Finish review

Started on	Thursday, 23 May 2024, 11:28 AM
State	Finished
Completed on	Thursday, 23 May 2024, 11:52 AM
Time taken	23 mins 16 secs
Marks	5.00/5.00
Grade	100.00 out of 100.00

Question **1**

Correct

Mark 1.00 out of 1.00

Flag question

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".

~ `	1	@	#	\$	%	^	&	*	(	)	-	+	← Backspace
Tab	Q	W	E	R	T	Y	U	I	O	P	{	}	\
Caps Lock	A	S	D	F	G	H	J	K	L	:	"	'	Enter
Shift		Z	X	C	V	B	N	M	<	>	? /	Shift	
Ctrl	Win Key	Alt								Alt	Win Key	Menu	Ctrl

**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	Alaska
Hello	Dad
Alaska	
Dad	
Peace	
2	adsdf
adsfd	afd
afd	

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

```
1 A = int(input())
2 words = [input() for _ in range(A)]
3 rows = [set("qwertyuiop"), set("asdfghjkl"), set("zxcvbnm")]
4 result = [word for word in words if any(set(word.lower()).issubset(row) for row in rows)]
5 if result:
6     print("\n".join(result))
7 else:
8     print("No words")
```

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

Passed all tests! ✓

**Correct**

Marks for this submission: 1.00/1.00.

Question **2**

Correct

Mark 1.00 out of 1.00

Flag question

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 5 10
1 2 8 6 5	3
2 6 8 10	

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

```
1 size1, size2 = map(int, input().split())
2 array1 = list(map(int, input().split()))
3 array2 = list(map(int, input().split()))
4 set1 = set(array1)
5 set2 = set(array2)
6 A = (set1.symmetric_difference(set2))
7 if A:
8     print(*A)
9     print(len(A))
10 else:
11     print("NO SUCH ELEMENTS")
```

	Input	Expected	Got	
✓	5 4	1 5 10	1 5 10	✓
	1 2 8 6 5	3	3	
	2 6 8 10			
✓	3 3	11 12	11 12	✓
	10 10 10	2	2	
	10 11 12			

Passed all tests! ✓

**Correct**

Marks for this submission: 1.00/1.00.

Question **3**

Correct

Mark 1.00 out of 1.00

Flag question

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

- For example, "ACGAATTCGG" 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 = "AAAAACCCCCAAAAACCCCCCAAAAGGGTTT"

Output: ["AAAAACCCCC", "CCCCCAAAAA"]

**Example 2:**

Input: s = "AAAAAAAAAAAA"

Output: ["AAAAAAAAAA"]

**For example:**

Input	Result
AAAAACCCCCAAAAACCCCCCAAAAGGGTTT	AAAAACCCCC CCCCCAAAAA

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

```
1 s = input()
2 A = set()
3 B = set()
4 for i in range(len(s) - 9):
5     C = s[i:i + 10]
6     if C in A:
7         B.add(C)
8     else:
9         A.add(C)
10 for seq in B:
11     print(seq)
```

	Input	Expected	Got	
✓	AAAAACCCCCAAAAACCCCCCAAAAGGGTTT	AAAAACCCCC CCCCCAAAAA	AAAAACCCCC CCCCCAAAAA	✓
✓	AAAAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA	✓

Passed all tests! ✓

**Correct**

Marks for this submission: 1.00/1.00.

Question **4**

Correct

Mark 1.00 out of 1.00

Flag question

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 b=input()
2 if b.isdigit():
3     print("Yes")
4 else:
5     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 **5**

Correct

Mark 1.00 out of 1.00

Flag question

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 2 2	4

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

```
1 nums = list(map(int, input().split()))
2 A = {}
3 for num in nums:
4     if num in A:
5         print(num)
6         break
7     A.append(num)
```

	Input	Expected	Got	
✓	1 3 4 2 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.

Finish review

← Week7\_MCQ

Jump to...

Dictionary →