

Purpose: combining for and while loops

Learning outcomes: 1, 2 and 3

Time: submit before 5pm Friday of Week 6.

Resources: MyLO: lecture notes and tutorial materials

Description:

A local pharmacist needs a program that counts how many of the letters 'a','b','c','d','e' and 'f' are in a string entered by the user in order to determine categories of medicines they need to order..

Task:

Write a program that asks the user for a string containing only the letters a,b,c,d,e and f (in any order, and repetition allowed). The program should count how many of each letter there are in the string and summarise the results. The program should then ask the use if they want to run the program again with a 'y' or 'n' answer.

Example output:

```
Enter the medicine codes (a,b,c,d,e and f): abbcccd
```

```
Here are the results:
```

```
There were 1 'a' codes
```

```
There were 2 'b' codes
```

```
There were 3 'c' codes
```

```
There were 1 'd' codes
```

```
There were 1 'e' codes
```

```
There were 0 'f' codes
```

```
Do you want to run this program again (y/n)? y
```

```
Enter the medicine codes (a,b,c,d,e and f): fbbeab
```

```
Here are the results:
```

```
There were 1 'a' codes
```

```
There were 3 'b' codes
```

```
There were 0 'c' codes
```

```
There were 0 'd' codes
```

```
There were 1 'e' codes
```

```
There were 1 'f' codes
```

```
Do you want to run this program again (y/n)? n
```

```
Goodbye
```

Hint

You will need to use a for loop and a while loop. Where the for loop is concerned, a string is actually a *sequence* of characters...

Submission Details

Upload the following to the MyLO submission folder for this task:

1. The source file (i.e. the text file containing your code)
2. A screenshot of the Python shell window that shows the **execution** results of the source code.

Assessment Criteria & Hints

A completed submission **must**:

1. Include comments about the program purpose and the author of the program (your name)
2. Declare variables and assign initial values at the start of the program
3. Use meaningful names for variables, starting with a lower case
4. Display the **count** of each letter found in the input
5. Ask the user to enter codes until they answer 'n' to the "*Do you want to run this program again.*" prompt
6. Submit both the source file and the screenshot