



Introduction to Python I (Exercises 05)

Dictionaries

- 1) Write a program that defines the following dictionary:

```
student_marks = {'Joe':15, 'Mary':20, 'Ralph':18, 'Annita':19}
```

- 1.1 Just print the dictionary (use a print)

```
{'Joe':15, 'Mary':20, 'Ralph':18, 'Annita':19}
```

- 1.2 Add the key pair value {'Rob':16} to the dictionary

- 1.3 Assign the mark 17 to Joe

- 1.4 Write an If statement that checks for the existence of student 'Mary' in the dictionary.
Print a message that lets you know if 'Mary' is or is not in the dictionary.

Do the same logic, but this time prompt the user for a student name. Then apply the same logic as above.

- 1.5 Print the elements of the dictionary, first the key and then the value:

As in:

```
Joe      15
Mary     20
Ralph    18
Annita   19
```

- 2) Write a program that creates a dictionary with student names and marks. Input the names and marks from the user (2 separate lines). Stop entering names and marks, whenever the user enters a 'Q' or 'q' in the name field.

Once the dictionary is complete, print all the values of the dictionary (name and marks)

- 3) Write a program that reads a string and prints a table of the letters that appear in the string in alphabetical order. Besides the letter, print the number of times the letter is found in the string. Case should be ignored.

A sample output of the program when the user enters the string 'This is a String with Upper and lower case Letters', would look this this:

```
a: 3, c: 1, d: 1, e: 5, g: 1, h: 2, i: 4, l: 2, n: 2, o: 1, p: 2, r: 4, s: 5, t: 5, u: 1, w: 2
```