بِسُمِ ٱللهِ ٱلرَّحْضَ لَارَّحِيمِ



Baghdad-ul-Jadheed campus

Submitted to:	
	Sir Reehan Faheem
Submitted by:	
	Faria Safdar
Program:	
	BS CS Eve, A
Semester:	
	7 th
Subject:	
	Web Design & Framework
Roll no:	
	SP20M2BB041

Chapter-5 Dictionary & Sets

> **Dictionary:**

Dictionaries are Python's implementation of a data structure that is more generally known as an associative array.

Example

```
1
2 #dictionary
3 a = {"key": "value" , 1:"alia", 2:[1,3,7]}
4 print("dicitionary is:\t" ,a)
5 #index
6 print("index is" ,a[2])
7
8
9

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

PS D:\sofware h> python -u "d:\sofware h\python\dic and set.py"
dicitionary is {'key': 'value', 1: 'alia', 2: [1, 3, 7]}
[1, 3, 7]
PS D:\sofware h>
```

Dictionary properties:

Some properties of dictionary are given below:

- Dictionaries are unordered. A dictionary contains key-value pairs but does not possess an order for the pairs. ...
- Keys are unique. Dictionary keys must be unique. ...
- Keys must be immutable. ...
- Dictionary comprehension

> <u>Dictionary method:</u>

Python has a set of built-in methods that you can use on dictionaries.

4 Example:

```
#dictionary method
     print(type[a])
     a.items()
    print(a)
11
     a.keys()
    print(a)
12
13
     #update
     b = {"key": "value", 1:"alia", 2:[1,3,7]}
     c= {"friend":"faria"}
15
     b.update(c)
     print(b)
17
```

Output:

```
dicitionary is: {'key': 'value', 1: 'alia', 2: [1, 3, 7]}
index is [1, 3, 7]
type[{'key': 'value', 1: 'alia', 2: [1, 3, 7]}]
{'key': 'value', 1: 'alia', 2: [1, 3, 7]}
{'key': 'value', 1: 'alia', 2: [1, 3, 7]}
{'key': 'value', 1: 'alia', 2: [1, 3, 7]}
{'key': 'value', 1: 'alia', 2: [1, 3, 7], 'friend': 'faria'}
```

> Set:

Sets are **used to store multiple items in a single variable**. Set is one of 4 built-in data types in Python used to store collections of data, the other 3 are List, Tuple, and Dictionary, all with different qualities and usage.

4 Example:

Output:

```
PS D:\sofware h> python -u "d:\sofware h\python\set.py"
set is {'asad', 'alia', 'faria'}
INFO IS: {False, 2, 'alia', 4.33}
```