

CSE 101 - Computer Engineering Concepts & Algorithms (2020 Fall)

LAB#2

data types, loops (while & for), if-else, nested if

- 1- Write a Python script that prints each character of the entered name on a new line. For example, your program output should look like below:

```
Enter your name: Abdullah
A
b
d
u
l
l
a
h
```

- 2- Write a Python script that prints each character of the entered name on a new line in the reverse order. For example, your program output should look like below:

```
Enter your name: Abdullah
h
a
l
l
u
d
b
A
sgoren@ubuntu:~/CSE101-Python$
```

- 3- Create a list of days of the week. Print each item of the list on a new line.

```
sgoren@ubuntu:~/CSE101-Python$ ./list.py
Monday
Tuesday
Wednesday
Thursday
Friday
Saturday
Sunday
```

- 4- Create an empty list. Then ask for names and fill in the list. Then print the list.

```
sgoren@ubuntu:~/CSE101-Python$ ./list2.py
How many students? 4
Enter a name: ali
Enter a name: sezer
Enter a name: ahmet
Enter a name: necati
['ali', 'sezer', 'ahmet', 'necati']
```

- 5- Update 2nd item in the list in the above script with your name. Then print the list. Is the list updated? Do step 4 and 5 using tuple. Tell me the difference.

```
sgoren@ubuntu:~/CSE101-Python$ ./list2.py
How many students? 4
Enter a name: Ali
Enter a name: Ayşe
Enter a name: Hatice
Enter a name: İsmail
['Ali', 'Ayşe', 'Hatice', 'İsmail']
['Ali', 'Angelina', 'Hatice', 'İsmail']
sgoren@ubuntu:~/CSE101-Python$
```

- 6- Create a dictionary by asking the number of students first and insert student name (key) and id (value) by asking name and id. Then print the dictionary, keys and values. Also print the id of the any student by its key.

```
sgoren@ubuntu:~/CSE101-Python$ ./dict.py
How many students? 4
Enter the name: Ali
Enter the student id: 12345
Enter the name: Buse
Enter the student id: 34234
Enter the name: Berk
Enter the student id: 67566
Enter the name: Fatih
Enter the student id: 87790
{'Berk': '67566', 'Buse': '34234', 'Ali': '12345', 'Fatih': '87790'}
dict_keys(['Berk', 'Buse', 'Ali', 'Fatih'])
dict_values(['67566', '34234', '12345', '87790'])
Enter the key: Berk
67566
```

- 7- Create a list with names. Your script should accept Quit, Add, and Print commands. Use while and nested if statements to generate the below user interface.

```
sgoren@ubuntu:~/CSE101-Python$ ./while-else.py

Please Type
    Quit to exit
    Add to enter a name to the list
    Print to print the list
: Add
Enter a name: Sezer

Please Type
    Quit to exit
    Add to enter a name to the list
    Print to print the list
: Add
Enter a name: Orhan

Please Type
    Quit to exit
    Add to enter a name to the list
    Print to print the list
: Print
['Sezer', 'Orhan']

Please Type
    Quit to exit
    Add to enter a name to the list
    Print to print the list
: Delete
Delete is not a valid command. Goodbye
```

8- Write a Python script which prints the following on the screen:

5, 15, 25, 35, 45,

7, 21, 35, 49, 63, 77, 91,

9, 27, 45, 63, 81, 99, 117, 135, 153,

...

19, 57, 95, 133, 171, 209, 247..., 665, 703,

9- Write a Python script which prints prime numbers from 1 to 1000.