

### Lab Exercise 3

[Based on Python data types, conditional statements & Loops]

Q1: Write a python program to add all the odd numbers from 0 to 20.

Q 2: Write a python program to find the sum of all integers greater than 100 and less than 200.

Q3: Write a program to display the sum of square of the first ten even natural numbers

//  $(2*2 + 4*4 + 6*6 + 8*8 + 10*10 + 12*12 + 14*14 + 16*16 + 18*18 + 20*20)$

Q4: Write a python program to display ascii characters from 65 to 90

65	=	A
66	=	B
67	=	C
68	=	D
69	=	E
70	=	F
71	=	G
72	=	H
73	=	I
74	=	J
75	=	K
76	=	L
77	=	M
78	=	N
79	=	O
80	=	P
81	=	Q
82	=	R
83	=	S
84	=	T
85	=	U
86	=	V
87	=	W
88	=	X
89	=	Y
90	=	Z

Q5: Display ascii characters from 48 to 57.

```
48 = 0
49 = 1
50 = 2
51 = 3
52 = 4
53 = 5
54 = 6
55 = 7
56 = 8
57 = 9
```

Q6: Display the following output with the help of Ascii character.

```
97 = a
98 = b
99 = c
100 = d
101 = e
102 = f
103 = g
104 = h
105 = i
106 = j
107 = k
108 = l
109 = m
110 = n
111 = o
112 = p
113 = q
114 = r
115 = s
116 = t
117 = u
118 = v
119 = w
120 = x
121 = y
122 = z
```

Q7: Write a python program for given a Python list you should be able to display Python list in the following order

```
L1 = [100, 200, 300, 400, 500]
```

Expected output:

[500, 400, 300, 200, 100]

Q8: Write a Python program to concatenate following dictionaries to create a new one.

Sample Dictionary :

dic1={1:10, 2:20}

dic2={3:30, 4:40}

dic3={5:50,6:60}

Expected Result : {1: 10, 2: 20, 3: 30, 4: 40, 5: 50, 6: 60}

Q9: Write a Python program to add key to a dictionary.

Sample Dictionary : {0: 10, 1: 20}

Expected Result : {0: 10, 1: 20, 2: 30}

Q10: Write a Python program to print out a set containing all the colors from a list which are not present in another list

*Test Data :*

```
color_list_1 = set(["White", "Black", "Red"])
```

```
color_list_2 = set(["Red", "Green"])
```

Q11: Given a Python list. Write a python program to turn every item of a list into its square List1 = [1, 2, 3, 4, 5, 6, 7]

Expected output:

[1, 4, 9, 16, 25, 36, 49]

Q12: Program to count the number of each vowel in a string.

Q13: write a Program to sort alphabetically the words form a string provided by the user.

[You can use split() method to split string into a list of words. ]

Q14:Write a python program to Access the value of key 'history' from the following dictionary-

```
sampleDict = {
    "class":{
        "student":{
            "name":"Mike",
            "marks":{
                "physics":70,
                "history":80
            }
        }
    }
}
```

Q 15: write a Program to Remove Punctuations from a String provided by the user. [Hint: use punctuation attribute of **string module** to get all punctuations (i.e. `!"#$%&'\()*+,-./:;<=>?@[\\]^_`{|}~`)]

### [Nested Loops]

Q16: Write a python program to print the Following:

```
1
2 1
3 2 1
```

Q17: WAP to print the following asterisk pattern:

```
*
* *
* * *
* * * *
* * * * *
* * * * *
```

Q18: WAP to create a function `traiangle` to print the following asterisk triangle pattern:

```
***
***
***
***
***
***
***
```

Q19: Write a python program to print following multiplication table on the screen

		1	2	3	4	5	6	7	8	9	10
	+	-----									
1		1	2	3	4	5	6	7	8	9	10
2		2	4	6	8	10	12	14	16	18	20
3		3	6	9	12	15	18	21	24	27	30
4		4	8	12	16	20	24	28	32	36	40
5		5	10	15	20	25	30	35	40	45	50
6		6	12	18	24	30	36	42	48	54	60
7		7	14	21	28	35	42	49	56	63	70
8		8	16	24	32	40	48	56	64	72	80
9		9	18	27	36	45	54	63	72	81	90
10		10	20	30	40	50	60	70	80	90	100