

Week 6 (To submit)

Exercise 1

Write a Python program to count the total of even and odd numbers from 1 – 100.

Expected Output :

Total for even numbers : 2450

Total for odd numbers : 2500

Exercise 2

Write a Python program to construct the following pattern, using a nested for loop.

```
X X X X X
```

```
X X X X
```

```
X X X
```

```
X X
```

```
X
```

```
Welcome to Python Programming!
```

```
X
```

```
X X
```

```
X X X
```

```
X X X X
```

Exercise 3

Write a Python program which accepts decrease numbers from input then calculate and display the total and average.

Sample out:

Initial Number: 5

Ending Number: 50

Decrease Number: 2

Note: In this situation, the program should be able to swap the value for initial number and ending number and convert decrease number from positive to negative.

Exercise 4

Write a Python program by using a nested FOR loop to print tic tac toe pattern.

Expected Output:

```

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

Exercise 5

Write a python program by using for loop to accept input (numbers) into a list; then later using for loop to calculate the total and average.

Output: The list of numbers key-in, total and average of numbers key-in.

```
Enter numbers *Separate by using commas:8,9,7,8,5
**Output**
List: ['8', '9', '7', '8', '5']
Numbers entered: 5
Total: 37
Average: 7.4
>>>
```

Exercise 6

Write a python program by using for loop to accept input (numbers) into a list.

The program will:

1. Calculate the total based on the following condition:
Values more than or equal 10, total each value by multiplying 1.5, otherwise total each value by multiplying 2.
2. Display the values for "Values>=10" and "Values<10".
3. Find out the numbers for Even values and Odd values.
4. Display the values for "Even Values" and "Odd Values".

Sample output:

```
Enter numbers *Separate by commas:12,17,14,8,9,5
~~Output~~
Values >=10: ~12~17~14
Values < 10: ~8~9~5
Total for values >= 10: 64.5
Total for values < 10: 44
Numbers of Even values: 3
Numbers of Odd values: 3
Even values: ~17~9~5
Odd values : ~12~14~8
Total: 108.5
>>> |
```

Exercise 7

Write a python program for the following expected output:

- Accept a phrase
- Enter a letter find and replace with new letter
- Display the new phrase after the process
- Display the times of the find letter appeared in the phrase.
- Display the position of the find letter appeared in the phrase.
-

Expected Output:

```
~Find and Replace~
Enter a phrase:Python Programming
Enter a letter to find:P
Enter a letter to replace:x
New phrase: xython xrogramming
P appeared 2 times in the phrase
P appeared at position: ~1~8
>>> |
```

Exercise 8

Scrabble is a game where players get points by spelling words. Words are scored by adding together the point values of each individual letter.

Write a python program for the following output.

Expected output:

```
Scrabble Game
Enter a word:Coding

*****
* Letter      * Score      *
*****
* c           * 3          *
*****
* o           * 1          *
*****
* d           * 1          *
*****
* i           * 4          *
*****
* n           * 1          *
*****
* g           * 4          *
*****
Total:   14
>>>
```

Information:

Score for each letter:

a	1	b	3	c	3	d	1	e	2
f	2	g	4	h	1	i	4	j	5
k	8	l	3	m	1	n	1	o	1
p	10	q	3	r	1	s	1	t	1
u	1	v	4	w	4	x	4	y	8
z	10								