LAB # 1

EXERCISES:

TASK # 1:

OBJECT:

Write a script that take user input for a number then adds 3 to that number. Then multiplies the result by 2, subtract 4, then again adds 3, then print the result.

CODE & OUTPUT:

```
In [2]: userInput = int(input("Please enter any number: "))
        userInput += 3
        userInput *= 2
        userInput -= 4
        userInput += 3

        print (userInput)
```

```
Please enter any number: 5
15
```

TASK # 2:

OBJECT:

Write a script that takes input as radius then calculate area of circle. (Hint: $A = \pi r^2$).

CODE & OUTPUT:

```
In [22]: radius = int (input("Please enter the radius: "))
         circle = (radius ** 2) * 3.14

         print (circle)
```

```
Please enter the radius: 5
78.5
```

TASK # 3:

OBJECT:

Write a Python script that asks users for their favourite color. Create the following output (assuming blue is the chosen color) (hint: use '+' and '*')

```
blueblueblueblueblueblueblueblueblueblue
blue                                blue
blueblueblueblueblueblueblueblueblueblue
```

CODE & OUTPUT:

```
In [23]: inputColor = input("Please enter the color name: ")
         print(inputColor * 10)
         print(inputColor + " "*len(inputColor) * 8 + inputColor)
         print(inputColor * 10)

         Please enter the color name: blue
         blueblueblueblueblueblueblueblueblueblue
         blue                                blue
         blueblueblueblueblueblueblueblueblueblue
```

TASK # 4:

OBJECT:

Store a person's name, and include some '*' characters at the beginning and end of the name. Print the name once, so the '*' around the name is displayed. Then print the name using each of the three stripping functions, lstrip(), rstrip(), and strip()

CODE & OUTPUT:

```
In [28]: name = input("Enter your name: ")
         FormatName = "****" + name + "****"
         print(FormatName)
         print(FormatName.lstrip("*"))
         print(FormatName.rstrip("*"))
         print(FormatName.strip("*"))
```

```
Enter your name: Areeb
****Areeb****
Areeb****
****Areeb
Areeb
```

TASK # 5:

OBJECT:

Write a function called absolute_num() that accepts one parameter, num. The function should return only positive value, and apply condition on it. This function returns the absolute value of the entered number.

CODE & OUTPUT:

```
In [1]: def absolute_num(num):
            if num < 0:
                return num * (-1)
            else:
                return num

        userNum = int(input("Enter any number: "))
        print("The Absolute number is ", absolute_num(userNum))
```

```
Enter any number: -5
The Absolute number is  5
```

TASK # 6:

OBJECT:

Write a function called describe_city( ) that accepts the name of a city and its country. The function should print a simple sentence, such as Karachi is in Pakistan. Give the parameter for the country a default value. Call your function for three different cities, at least one of which is in the default country.

CODE & OUTPUT:

```
In [2]: def describe_city(city, country = "pakistan"):
            print(city.title() + " is in " + country.title())

        describe_city("karachi")
        describe_city("lahore")
        describe_city("Mumbai", "india")
```

```
Karachi is in Pakistan
Lahore is in Pakistan
Mumbai is in India
```

TASK # 7:

OBJECT:

Write a python script that take a user input and to create the multiplication table (from 1 to 10) of that number.

CODE & OUTPUT:

```
In [4]: num = int(input("Enter a num for its multiplication: "))
        for i in range(1,11):
            print(num , "*", i, "=", num * i)
```

```
Enter a num for its multiplication: 5
5 * 1 = 5
5 * 2 = 10
5 * 3 = 15
5 * 4 = 20
5 * 5 = 25
5 * 6 = 30
5 * 7 = 35
5 * 8 = 40
5 * 9 = 45
5 * 10 = 50
```

TASK # 8:

OBJECT:

Write a Python program that prints all the numbers from 0 to 6 except 3 and 6. Note: Use 'continue' statement.

CODE & OUTPUT:

```
In [12]: for i in range(0, 7):
             if i == 3 or i == 6:
                 continue
             print(i)
```

```
0
1
2
4
5
```

TASK # 9:

OBJECT:

Stages of Life: Write an if-elif-else chain that determines a person's stage of life. Set a value for the variable age, and then:

- If the person is less than 2 years old, print a message that the person is a baby.
- If the person is at least 4 years old but less than 13, print a message that the person is a kid.
- If the person is at least 13 years old but less than 20, print a message that the person is a teenager.
- If the person is at least 20 years old but less than 65, print a message that the person is an adult.
- If the person is age 65 or older, print a message that the person is an elder.

CODE & OUTPUT:

In [15]:
```
age = int(input("Enter your age: "))
if age < 2:
    print("Person is a baby.")
elif age >= 2 and age < 13:
    print("Person is a kid.")
elif age >= 13 and age < 20:
    print("Person is a teenager.")
elif age >= 20 and age < 65:
    print("Person is an adult.")
elif age >= 65:
    print("Person is an elder.")
else:
    print("Age is invalid")
```

```
Enter your age: 18
Person is a teenager.
```