ASSIGNMENT FOR PIAIC BATCH 2 IOT
Timing: (3.30-6.30)

1. Store a string **“PAKISTAN ZINDABAD”** in a variable, also calculate the length of string and store it in a variable**.** Print both variables.

   Output:

   PAKISTAN ZINDABAD
   LENGTH OF PAKISTAN ZINDABAD IS 17

2. Store **85** in a variable if it is an unsigned 64-bit number. Also store **-550** in a variable if it is 16-bit integer. Print both variables.

   Output:

   85
   -550

3. Store a float 56.6 in a variable if it is a 32-bit float also print the variable.

   Output:

   56.6

4. Suppose there are two integer numbers **76** and **23.** Store both of them in variables with any name and apply following operations on it.

    - Addition
    - Subtraction
    - Multiplication
    - Division
    - Modulo

    Print the answer of all operations.

    Output:

    x+y = 99
    x-y = 53
    x*y = 1748
    x/y = 3
    x%y = 7

5. Store following values in an array. Print the array and also print the values **150** and **250**.

100, 150, 200, 250,300

Output:

[100, 150, 200, 250, 300]
150
250

6. Store following values in a tuple**.** Print the tuple and also print **cloud**, **8645** and **65.4**.

“IoT”,”AI”,”Cloud”,500.65, 8645, 65.4

Output:

("IoT", "AI", "Cloud", 500.65, 8645, 65.4)
Cloud
8645
65.4

7**.** Write a function that can take 3 **integer** numbers as argument/parameter and **prints** the sum of them.

Hint: when we call the function **add(10,20,30)** like this, it **prints** the sum.

Output:

60

8**.** Write a function that can take 3 **float** numbers as argument/parameter and **returns** the multiplication result of them.

Hint: when we call the function **multiply(5.6,2.4,10.2)** like this, it **returns** the result. Save that result in a variable and print it.

Output:

137.088

9. Store marks in a variable and print the Grade of student.

Marks Range:

Greater than 80 - Grade A+
Between 70 and 80 - Grade A
Between 60 and 70 - Grade B
Between 50 and 60 - Grade C
Between 40 and 50 - Grade D
Below 40 - Grade F

Change value in marks variable to **95**, **32** and **62** and show the output.

10. Store year in variable like this **(let year = 2019;)** and check if the year is leap or not.

Hint: Leap Year is exactly divisible by 4.

11. Print even numbers using for loop.

Output: 2,4,6,8,10,12,....

12. Print odd numbers using while loop.

Output: 1,3,5,7,9,11,.....

13. Store an integer (any value) in a variable and **print the table** of that number using any loop.

Output:

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

Rust book link: https://doc.rust-lang.org/nightly/book/