ASSIGNMENT-1

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1. For a given input string "Python is a case sensitive language". Write python code for the following:
   a. Find the length of the input string.
   b. Reverse the order of the string in one line code.
   c. Using Slice function store "a case sensitive" in new string.
   d. Replace "a case sensitive" with "object oriented".
   e. Find index of substring "a" in the given input string.
   f. Remove the white spaces from the given input string.

<u>OUTPUT:</u>

IDLE Shell 3.10.4

File Edit Shell Debug Options Window Help

```
Python 3.10.4 (tags/v3.10.4:9d38120, Mar 23 2022, 23:13:41) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
=================== RESTART: C:/Users/HP/Desktop/question1.py ===================
35
egaugnal evitisnes esac a si nohtyP
a case sensitive
Python is object oriented language
10
Pythonisacasesensitivelanguage
>>>
```

2. Store your name, SID, department name and CGPA into different variables. With the help of String formatting print the following output:

Hey, ABC Here!

My SID is 2110XXXX

I am from XYZ department and my CGPA is 9.9

OUTPUT:

```
IDLE Shell 3.10.4

File  Edit  Shell  Debug  Options  Window  Help
    Python 3.10.4 (tags/v3.10.4:9d38120, Mar 23 2022, 23:13:41) [MSC v.1929 64 bit (AMD64)] on
    Type "help", "copyright", "credits" or "license()" for more information.
>>>
    ================== RESTART: C:/Users/HP/Desktop/questipn2.py ==================
    Hey, Simran Here!
    My SID is 21102062
    I am from CIVIL department and my CGPA is 9.9
>>>
```

3. For a=56 and b=10 with the help of bitwise operators calculate the following:

a. a&b

b. a|b

c. a^b

d. Left shift both a and b with 2 bits.

e. Right shift a with 2 bits and b with 4 bits.

OUTPUT:

IDLE Shell 3.10.4

File Edit Shell Debug Options Window Help

```
Python 3.10.4 (tags/v3.10.4:9d38120, Mar 23 2022, 23:13:41) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
====================== RESTART: C:/Users/HP/question3.py ======================
50
58
50
224 40
14 0
>>>
```

4. Write a python program to check if the word "name" is present in the string entered by the user (Print : "Yes" or "No").

OUTPUT:

IDLE Shell 3.10.4

File Edit Shell Debug Options Window Help

```
Python 3.10.4 (tags/v3.10.4:9d38120, Mar 23 2022, 23:13:41) [MSC v.1929 64 bit (AMD64)]
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===================== RESTART: C:/Users/HP/question4.py ======================
Enter any string: My name is Simran Sehgal
Yes
>>>
================================================================================= RESTART: C:/
Enter any string: python is a high-level language.
No
>>>
```

5. For any three lengths, there is a simple test to see if it is possible to form a triangle. If any of the three lengths is greater than the sum of the other two, then you cannot form a triangle. Otherwise, Enter three sides of a triangle, converts them to integers, and to check whether the given input lengths can form a triangle or not (Print : "Yes" or "No").

OUTPUT:

6. Given two numbers 'a' and b'. Write a program to count number of bits needed to be flipped to convert 'a' to 'b'.

OUTPUT:

IDLE Shell 3.10.4

File Edit Shell Debug Options Window Help

```
Python 3.10.4 (tags/v3.10.4:9d38120, Mar 23 2022, 23:13:41) [MSC v.1929 64 bit
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===================== RESTART: C:/Users/HP/question6.py =====================
Enter any number: 21
Enter other number : 8
4
>>>
```