

PYTHON ASSIGNMENT-2

Ques-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.**

```
input_string= "Python is a case sensitive language"  
print(len(input_string))
```

```
35
```

- b. Reverse the order of the string in one line code.**

```
input_string= "Python is a case sensitive language"  
print(input_string[-1::-1])
```

```
egaugnal evitisnes esac a si nohtyP
```

- c. Using Slice function store “a case sensitive” in new string.**

```
input_string= "Python is a case sensitive language"  
new_string= input_string[10:26]  
print(new_string)
```

```
a case sensitive
```

- d. Replace “a case sensitive” with “object oriented”.**

```
input_string = "Python is a case sensitive language"  
input_string = input_string.replace('a case sensitive','object oriented')  
print(word)
```

```
Python is object oriented language
```

- e. Find index of substring “a” in the given input string.**

```
input_string= "Python is a case sensitive language"  
print(input_string.find('a'))
```

```
10
```

- f. Remove the white spaces from the given input string.**

```
input_string = "Python is a case sensitive language"
```

```
input_string = input_string.replace(' ', '')  
print(input_string)
```

```
Pythonisacasesensitivelanguage
```

Ques- 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

Ans-2

```
Name= str("Lakshay")
```

```
SID= int(21107050)
```

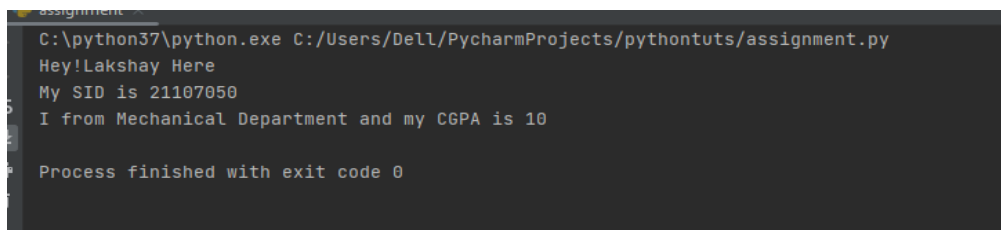
```
Department = str("Mechanical")
```

```
CGPA= int(10)
```

```
print("Hey!" + Name + " Here")
```

```
print("My SID is " + str(SID))
```

```
print("I from " + Department + " Department" + " and my CGPA is " + str(CGPA))
```



```
assignment  
C:\python37\python.exe C:/Users/Dell/PycharmProjects/pythontuts/assignment.py  
Hey!Lakshay Here  
My SID is 21107050  
I from Mechanical Department and my CGPA is 10  
  
Process finished with exit code 0
```

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

a. a&b

a=56

b=10

""" Here first we will convert both a and b in binary.

Now, and means if it is 0 and 0 or 0 and 1 it will give output 0 and if it is 1 and 1 it will give output 1 . & symbol represents or """

print(a&b)

8

b. a|b

a=56

b=10

""" Here first we will convert both a and b in binary.

Now,or means if it is 1 and 1 or 0 and 1 it will give output 1 and if it is 0 and 0 it will give output 0. | symbol represents or """

print(a|b)

58

c. a^b

a=56

b=10

""" Here first we will convert both a and b in binary.

Now,XOR means if it is 0 and 0 or 1 and 1 it will give output 0 and if it is 0 and 1 or vice-versa it will give output 1. ^ symbol represents XOR """

print(a^b)

50

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

a=56

print(a<<2)

224

b=10

print(b<<2)

40

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

a=56

print(a>>4)

3

b=10

print(b>>4)

0

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

```
input_string= input("Enter the string: ")
```

```
check_name= input_string.find("name")
```

```
if(check_name == -1):
```

```
    print("no")
```

else:

```
print("yes")
```

```
Enter the string: raghav  
no
```

Ques-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”).[Don’t use if else here].

```
side_1= int(input("Enter side 1: "))
```

```
side_2= int(input("Enter side 2: "))
```

```
side_3= int(input("Enter side 3: "))
```

```
a= side_1+side_2
```

```
b= side_3+side_2
```

```
c= side_1+side_3
```

```
x= (side_1<b)
```

```
y= (side_2<c)
```

```
z= (side_3<a)
```

```
answer= str(x&y&z)
```

```
answer= answer.replace("True", "yes")
```

```
answer= answer.replace("False", "no")
```

```
print(answer)
```

```
Enter side 1: 3
Enter side 2: 4
Enter side 3: 5
yes
```

```
Enter side 1: 4
Enter side 2: 5
Enter side 3: 10
no
```

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

```
a= int(input("enter the number a: "))
```

```
b= int(input("enter the number b: "))
```

```
c=(a^b)
```

```
d= bin(c)
```

```
count=0
```

```
for i in d[2:1]:
```

```
if i== "1":
```

```
count+=1
```

```
print(count)
```

```
enter the number a: 3
enter the number b: 4
0
```