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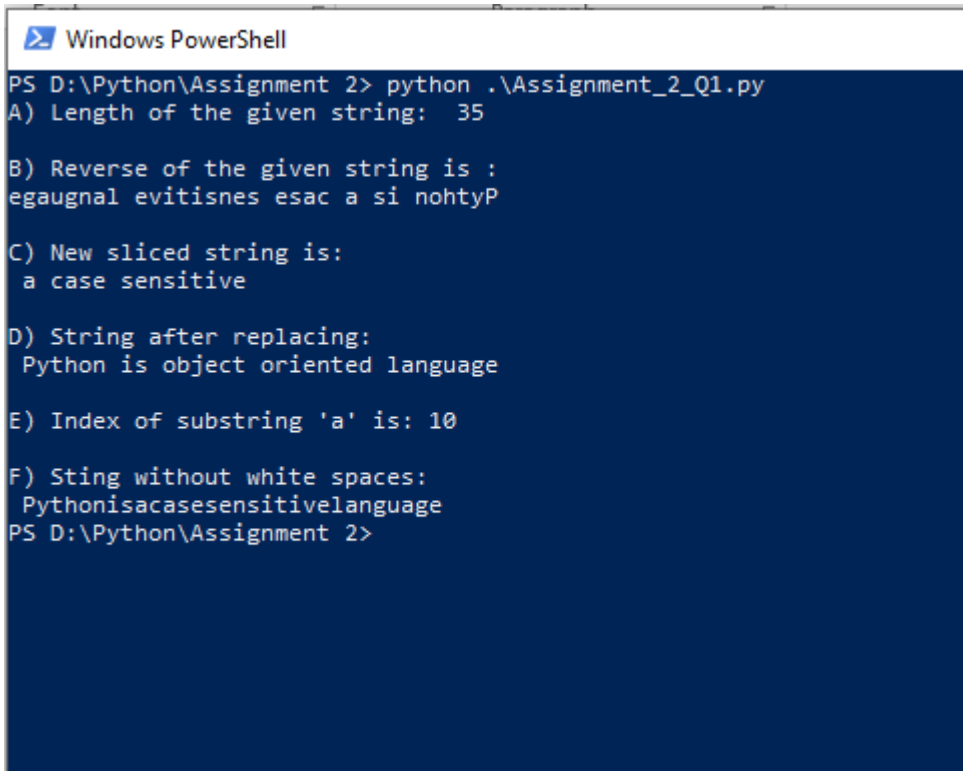
Subject : Python

Assignment_2

Ans_1.

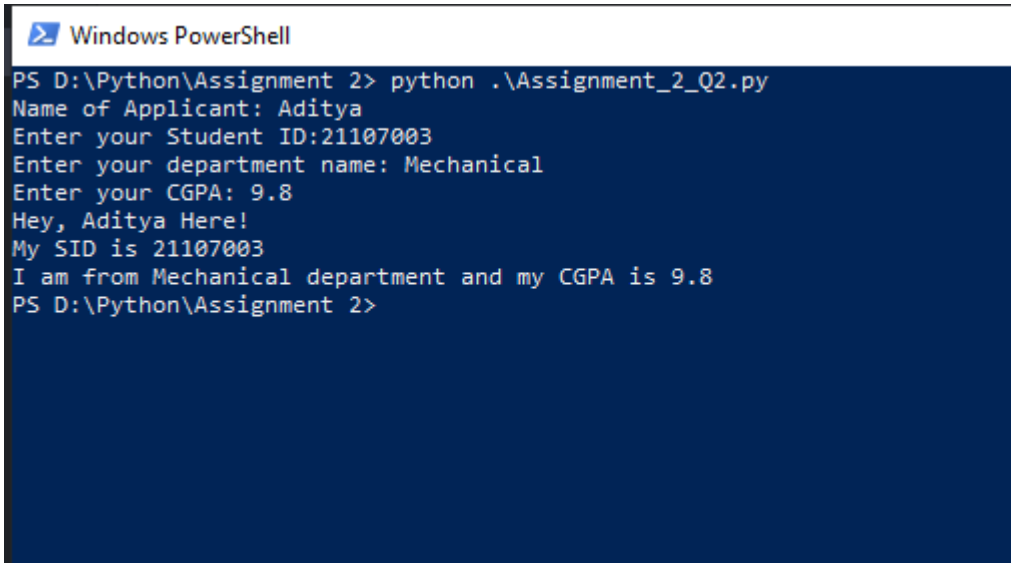
Assignment_2_Q1.py

```
'''For taking length of string
First take input of string'''

string = "Python is a case sensitive language"

#len() is used for taking length of given string.
print("A) Length of the given string: ",len(string),"\n")

# This is for giving output string in reverse order.
print("B) Reverse of the given string is :")
print(string[::-1],"\n")

#slicing the string.
new_string = string[10:26]
print("C) New sliced string is: ","\n", new_string,"\n")

#replace a string using replace fun. in string slicing,
Replaced_string= string.replace('a case sensitive' , 'object oriented')
print("D) String after replacing: ", "\n" ,Replaced_string ,"\n")

#Finding the index of "a" in the input string.
print("E) Index of substring 'a' is:", string.find("a"),"\n")

#Printing the string without white spaces using replace in string.
print("F) Sting without white spaces: ","\n",string.replace(" ", ""))

```


Windows PowerShell
PS D:\Python\Assignment 2> python .\Assignment_2_Q1.py
A) Length of the given string: 35
B) Reverse of the given string is :
egaugnal evitisnes esac a si nohtyP
C) New sliced string is:
 a case sensitive
D) String after replacing:
 Python is object oriented language
E) Index of substring 'a' is: 10
F) Sting without white spaces:
 Pythonisacasesensitivelanguage
PS D:\Python\Assignment 2>

Ans_2.


Assignment_2_Q2.py
#Taking input from User.
name = str(input("Name of Applicant: "))
'''I have used different data types here
like int, str andfloat'''
SID = int(input("Enter your Student ID:"))
dep_name = str(input("Enter your department name: "))
cgpa = float(input("Enter your CGPA: "))
'''Here string is formed using multiline comment command which
gives us the string in the same body formate as we write inside this.'''
string= '''Hey, <name> Here!
My SID is <SID>
I am from <dep_name> department and my CGPA is <cgpa>'''
#As the string is replaced multiple times...we use this slicing in the given way.
print(string.replace("<name>", name).replace("<SID>", str(SID)).replace("<dep_name>", dep_name).replace("<cgpa>", str(cgpa)))



Ans_3.

Assignment_2_Q3.py

```python
#Use of Bitwise Operators.
a = 56
b = 10

#Use of Bitwise AND(&) operator.
print("A. a & b =", a & b)

#Use of Bitwise OR(|) operator.
print("B. a | b =", a | b)

#Use of Bitwise XOR(^) operator.
print("C. a ^ b =", a ^ b)

#Use of shift(left) operator.
print("D. a << 2 = ", a << 2)

#Use of shift(both) operator.
print("E. a >> 2 = ", a >> 2," and ", "b >> 4 = ", b >> 4 )

```

```
Windows PowerShell
PS D:\Python\Assignment 2> python .\Assignment_2_Q3.py
A. a & b = 8
B. a | b = 58
C. a ^ b = 50
D. a << 2 =  224
E. a >> 2 =  14  and  b >> 4 =  0
PS D:\Python\Assignment 2>
```

Ans_4.

Assignment_2_Q4.py

```python
# Taking input
string= str(input("Enter any string: "))

# Using string slicing to find a word in the string
checked = string.find("name")

# Making a loop for printing yes and no for the required outputs.
# Here '==' is comparison operator
if checked == -1:     # '-1' is the value as an output of find function indicating the absence of particular string in it.
    print("No")

else:
    print("Yes")
```

```
Windows PowerShell
PS D:\Python\Assignment 2> python .\Assignment_2_Q4.py
Enter any string: Aditya Kundu here, Hello!
No
PS D:\Python\Assignment 2> python .\Assignment_2_Q4.py
Enter any string: My name is Aditya Kundu
Yes
PS D:\Python\Assignment 2> python .\Assignment_2_Q4.py
Enter any string: Hello World!
No
PS D:\Python\Assignment 2> python .\Assignment_2_Q4.py
Enter any string: name
Yes
PS D:\Python\Assignment 2>
```

Ans_5.

Assignment_2_Q5.py

```python
# Taking inputs of the sides of the triangle.
s1 = int(input("Enter First length : "))
s2 = int(input("Enter Second length : "))
s3 = int(input("Enter Third length : "))

# Checking the condition for triangle to be formed.
C1 = s1 > s2 + s3
C2 = s2 > s1 + s3
C3 = s3 > s1 + s2

# Here we check wheather the all conditions are satisfied or not.
Output = str(C1 or C2 or C3)

print("The triangle can be formed?")

# Using string slicing.
print(Output.replace("True", "No!").replace("False", "Yes!"))

```

Windows PowerShell

```
PS D:\Python\Assignment 2> python .\Assignment_2_Q5.py
Enter First length : 9
Enter Second length : 7
Enter Third length : 6
The triangle can be formed?
Yes!
PS D:\Python\Assignment 2> python .\Assignment_2_Q5.py
Enter First length : 19
Enter Second length : 1
Enter Third length : 1
The triangle can be formed?
No!
PS D:\Python\Assignment 2>
```

Ans_6.

Assignment_2_Q6.py

```python
a = int(input("Enter the value of a:"))
b = int(input("Enter the value of b:"))
c = (a^b)
d = bin(c)
count = 0
for i in d[2:]:
    if i == "1":
        count += 1
        print(count)

```