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Assignment No. 01

Name of Student: Rupesh Ramesh Desai **Roll No.:**

Class: B.Sc III **Date:** / /

Signature:

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Q. Python program to add two numbers.

Program:

```
num1=20
num2=100
sum=num1+num2
print("Sum of {0} and {1} is {2}".format(num1,num2,sum))
```

**********OUTPUT**********

```
PS E:\TRY.PY> & "C:/Users/Rupesh
Desai/AppData/Local/Programs/Python/Python310/python.exe" e:/TRY.PY/py/A1.py
Sum of 20 and 100 is 120
```

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Assignment No. 02

Name of Student: Rupesh Ramesh Desai **Roll No.:**

Class: B.Sc III **Date:** / /

Signature:

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Q. Python program for factorial of a number.

Program:

```
num=int(input("Enter a number: "))
factorial=1
if num<0:
   print("factorial does not exist for negative numbers")
elif num==0:
   print("the factorial of 0 is 1")
else:
   for i in range(1,num + 1):
      factorial=factorial*i
   print("The Factorial of",num ,"is" ,factorial)
```

**********OUTPUT**********

```
PS E:\TRY.PY> & "C:/Users/Rupesh
Desai/AppData/Local/Programs/Python/Python310/python.exe" e:/TRY.PY/py/A2.py
Enter a number: 30
The Factorial of 30 is 265252859812191058636308480000000
```

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Assignment No. 03

Name of Student: Rupesh Ramesh Desai **Roll No.:**

Class: B.Sc III **Date:** / /

Signature:

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Q. Python program for simple interest.

Program:

```
def simple_interest(p,t,r):
    print("The principal is",p)
    print("The time period is",t)
    print("The rate of interest is",r)

    si=(p*t*r)/100

    print("The simple interest is",si)

    return si

simple_interest(12,24,8)
```

**********OUTPUT**********

```
PS E:\TRY.PY> & "C:/Users/Rupesh
Desai/AppData/Local/Programs/Python/Python310/python.exe" e:/TRY.PY/py/A3.py
The principal is 12
The time period is 24
The rate of interest is 8
The simple interest is 23.04
```

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Assignment No. 04

Name of Student: Rupesh Ramesh Desai **Roll No.:**

Class: B.Sc III **Date:** / /

Signature:

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Q. Python program to check if a string is palindrome or not.

Program:

```
def isPalindrome(s):
    return s==s[::-1]

s="malayalam"
ans=isPalindrome(s)

if ans:
    print("Yes")
else:
    print("No")
```

**********OUTPUT**********

```
PS E:\TRY.PY> & "C:/Users/Rupesh
Desai/AppData/Local/Programs/Python/Python310/python.exe" e:/TRY.PY/py/A4.py
Yes
```

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Assignment No. 05

Name of Student: Rupesh Ramesh Desai **Roll No.:**

Class: B.Sc III **Date:** / /

Signature:

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Q. Python program to reverse words in a given string in python.

Program:

```
def reverse(string):
   string=string[::-1]
   return string
s="GeeksforGeeks"
print("The original string is:",end="")
print(s)
print("The reversed string(using extended slice syntax)is:",end="")
print(reverse(s))
```

**********OUTPUT**********

```
PS E:\TRY.PY> & "C:/Users/Rupesh
Desai/AppData/Local/Programs/Python/Python310/python.exe" e:/TRY.PY/py/A5.py
The original string is:GeeksforGeeks
The reversed string(using extended slice syntax)is:skeeGrofskeeG
```

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Assignment No. 06

Name of Student: Rupesh Ramesh Desai **Roll No.:**

Class: B.Sc III **Date:** / /

Signature:

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Q. Python program to find out ways to remove i'th character from string in python.

Program:

```
test_str="GeeksforGeeks"
new_str=test_str[:2]+test_str[3:]
print("The string after removal of i th character:"+new_str)
```

**********OUTPUT**********

```
PS E:\TRY.PY> & "C:/Users/Rupesh
Desai/AppData/Local/Programs/Python/Python310/python.exe" e:/TRY.PY/py/a6.PY
The string after removal of i th character:GeksforGeeks
```

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Assignment No. 07

Name of Student: Rupesh Ramesh Desai **Roll No.:**

Class: B.Sc III **Date:** / /

Signature:

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Q. Python program to check if a substring is present in a given string.

Program:

```
MyString1="Mom says..RupS You need to work on Yourself"

if "need" in MyString1:
   print("Yes! it is present in the string")

else:
   print("No! it is not present")
```

**********OUTPUT**********

```
PS E:\TRY.PY\RupS> & "C:/Users/Rupesh
Desai/AppData/Local/Programs/Python/Python310/python.exe" e:/TRY.PY/RupS/A7.py
Yes! it is present in the string
```

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Assignment No. 08

Name of Student: Rupesh Ramesh Desai **Roll No.:**

Class: B.Sc III **Date:** / /

Signature:

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Q. Python program to interchange first and last elements in a list.

Program:

```
def swaplist(newlist):
   size=len(newlist)

   temp=newlist[0]
   newlist[0]=newlist[size-1]
   newlist[size-1]
   return newlist
newlist=[12,35,9,56,24]

print(swaplist(newlist))
```

**********OUTPUT**********

```
PS E:\TRY.PY> & "C:/Users/Rupesh
Desai/AppData/Local/Programs/Python/Python310/python.exe" e:/TRY.PY/py/A8.py
[24, 35, 9, 56, 24]
```

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Assignment No. 09

Name of Student: Rupesh Ramesh Desai **Roll No.:**

Class: B.Sc III **Date:** / /

Signature:

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Q. Python program to swap two elements in a list.

Program:

```
fruits=["mango","jackfruit","jamun"]

print("list of fruits before swap:")
print(fruits)

fruits[0],fruits[2]=fruits[2],fruits[0]

print("\n list of fruits after swap:")
print(fruits)
```

**********OUTPUT**********

```
PS E:\TRY.PY> & "C:/Users/Rupesh
Desai/AppData/Local/Programs/Python/Python310/python.exe" e:/TRY.PY/py/A9.py
list of fruits before swap:
['mango', 'jackfruit', 'jamun']

 list of fruits after swap:
['jamun', 'jackfruit', 'mango']
```

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Assignment No. 10

Name of Student: Rupesh Ramesh Desai **Roll No.:**

Class: B.Sc III **Date:** / /

Signature:

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Q. Python program to find out different ways to clear a list in python.

Program:

```
list=[1,2,3,4]
print("list before clear:",list)

list.clear()
print("list after clear:",list)
```

**********OUTPUT**********

```
PS E:\TRY.PY> & "C:/Users/Rupesh
Desai/AppData/Local/Programs/Python/Python310/python.exe" e:/TRY.PY/py/A10.py
list before clear: [1, 2, 3, 4]
list after clear: []
PS E:\TRY.PY>
```

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Assignment No.11

Name of Student: Rupesh Ramesh Desai **Roll No.:**

Class: B.Sc III **Date:** / /

Signature:

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Q. Python program to reversing a List.

Program:

```
def list_reverse(arr,size):
if(size==1):
   return arr
elif(size==2):
   arr[0],arr[1]=arr[1],arr[0]
   return ArithmeticError
else:
   i=0
while(i>size//2):
      arr[i],arr[size-i-1]=arr[size-i-1],arr[i]
if((i!=i+1 and size-i-1 != size-i-2)and(i!=size-i-2 and size-i-1!=i+1)):
      arr[i+1],arr[size-i-2]=arr[size-i-2],arr[i+1]
   i+=2
return arr
      arr=[1,2,3,4,5]
   size=5
   print("original list:",arr)
   print("Reversed list:",list_reverse(arr,size))
```

**********OUTPUT**********

```
PS E:\TRY.PY> & "C:/Users/Rupesh
Desai/AppData/Local/Programs/Python/Python310/python.exe" e:/TRY.PY/py/A11.py
original list: [1, 2, 3, 4, 5]
Reversed list: [5, 4, 3, 2, 1]
ubuntu@ubuntu-desktop:~$
```

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Assignment No. 12

Name of Student: Rupesh Ramesh Desai **Roll No.:**

Class: B.Sc III **Date:** / /

Signature:

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Q. Python program for Linear Search.

Program:

```
def linear_search(list1,n,key):
    for i in range(0,n):
        if(list1[i]==key):
            return i
            return-1
list1=[1,3,5,4,7,9]
key=7

n=len(list1)
res=linear_search(list1,n,key)
if(res==-1):
    print("Element not found")
else:
    print("Element found at index:",res)
```

**********OUTPUT**********

```
PS E:\TRY.PY> & "C:/Users/Rupesh
Desai/AppData/Local/Programs/Python/Python310/python.exe" e:/TRY.PY/py/A12.py
Element found at index: 4
```

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Assignment No. 13

Name of Student: Rupesh Ramesh Desai **Roll No.:**

Class: B.Sc III **Date:** / /

Signature:

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Q. Python program for Insertion sort.

Program:

```
def insertion_sort(list1):
    for i in range(1,len(list1)):
        value=list1[i]
        j=i-1
        while j>=0 and value<list1[j]:
            list1[j+1]=list1[j]
            j-=1
        list1[j+1]=value
    return list1
list1=[10,5,13,8,2]
print("the unsorted list is:",list1)
print("the sorted list is:",insertion_sort(list1))
```

**********OUTPUT**********

```
PS E:\TRY.PY> & "C:/Users/Rupesh
Desai/AppData/Local/Programs/Python/Python310/python.exe" e:/TRY.PY/py/A13.py
the unsorted list is: [10, 5, 13, 8, 2]
the sorted list is: [2, 5, 8, 10, 13]
```

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Assignment No. 14

Name of Student: Rupesh Ramesh Desai **Roll No.:**

Class: B.Sc III **Date:** / /

Signature:

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Q. Python program to demonstrated use of dictionaries by key or value.

Program:

```
dict={'Name':'RupS','Age':'21','Class':'T.Y,'}
print("dict['Name']:",dict['Name'])
print("dict['Age']:",dict['Age'])
```

**********OUTPUT**********

```
PS E:\TRY.PY> & "C:/Users/Rupesh
Desai/AppData/Local/Programs/Python/Python310/python.exe" e:/TRY.PY/py/A14.py
dict['Name']: RupS
dict['Age']: 21
```

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Assignment No. 15

Name of Student: Rupesh Ramesh Desai **Roll No.:**

Class: B.Sc III **Date:** / /

Signature:

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Q. Python program to remove a key from dictionary.

Program:

```
dict={1:"a",2:"b"}

print(dict)

value=dict.pop(1)
print(dict)
print(value)
```

**********OUTPUT**********

```
PS E:\TRY.PY> & "C:/Users/Rupesh
Desai/AppData/Local/Programs/Python/Python310/python.exe" e:/TRY.PY/py/A15.py
{1: 'a', 2: 'b'}
{2: 'b'}
A
```

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