Python

ASSIGNMENT 4

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CLASS: TYBBACA
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ASSIGNMENT BASED ON: WORKING WITH FUNCTION, MODULES AND PACKAGES

ASSIGNMENT 4

SET-A

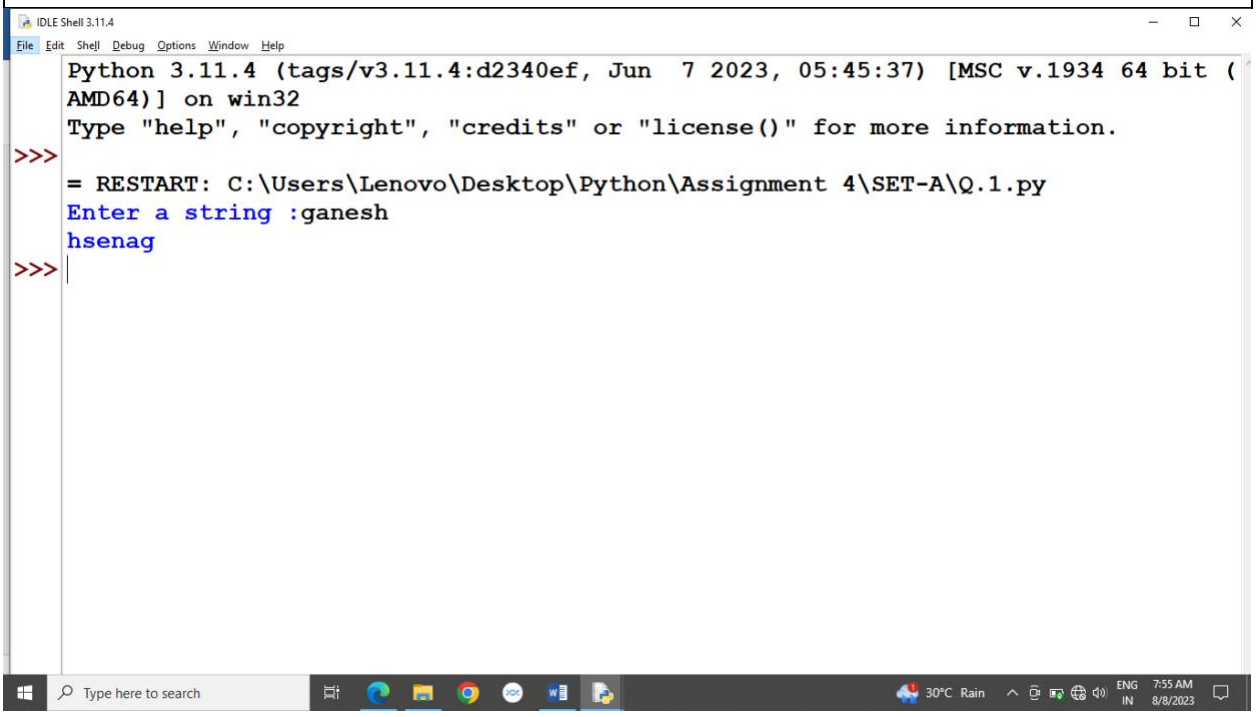
Q.1 Write a recursive function which print string in reverse order.

Ans:

```
def rev(string):
    str=""
    for i in string:
        str=i+str
    print(str)


a=str(input("Enter a string :"))
rev(a)
```

Output:



ASSIGNMENT 4

SET-A

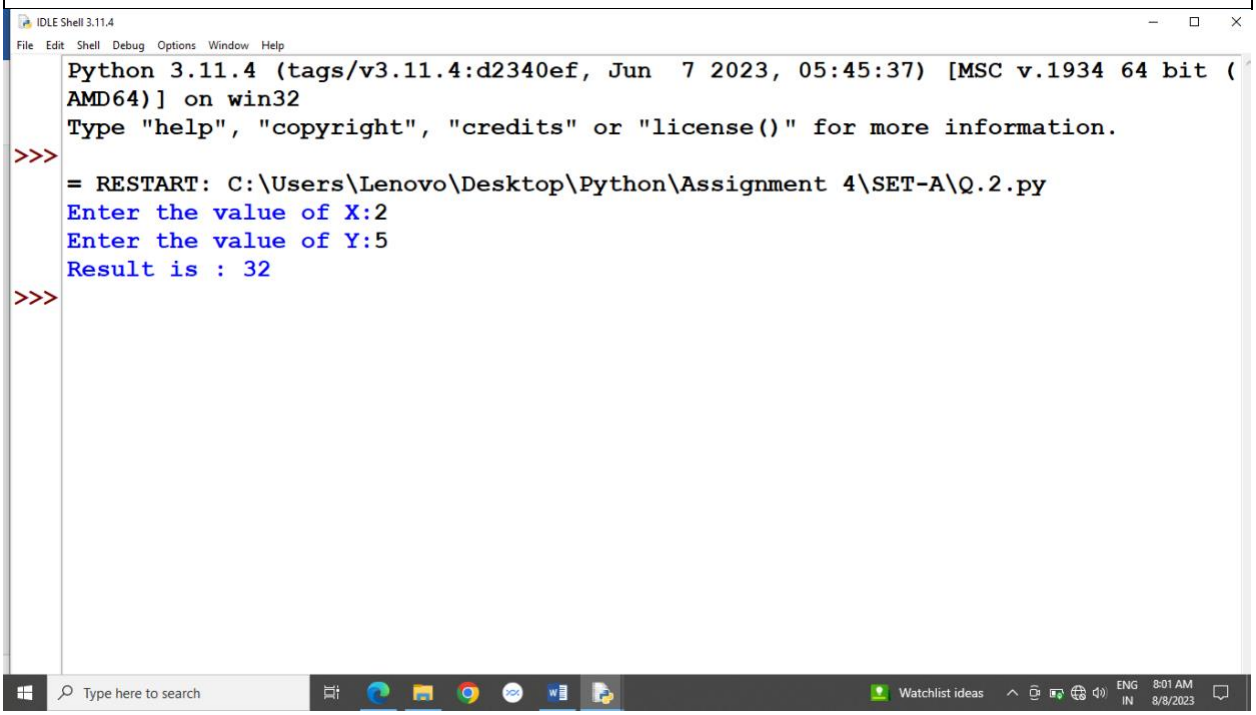
Q.2 Write a python script using function to calculate XY

Ans:

```
def fun(a,b):
   res=pow(a,b)
   print("Result is :",res)

x=int(input("Enter the value of X:"))
y=int(input("Enter the value of Y:"))
fun(x,y)
```

Output:



ASSIGNMENT 4

SET-A

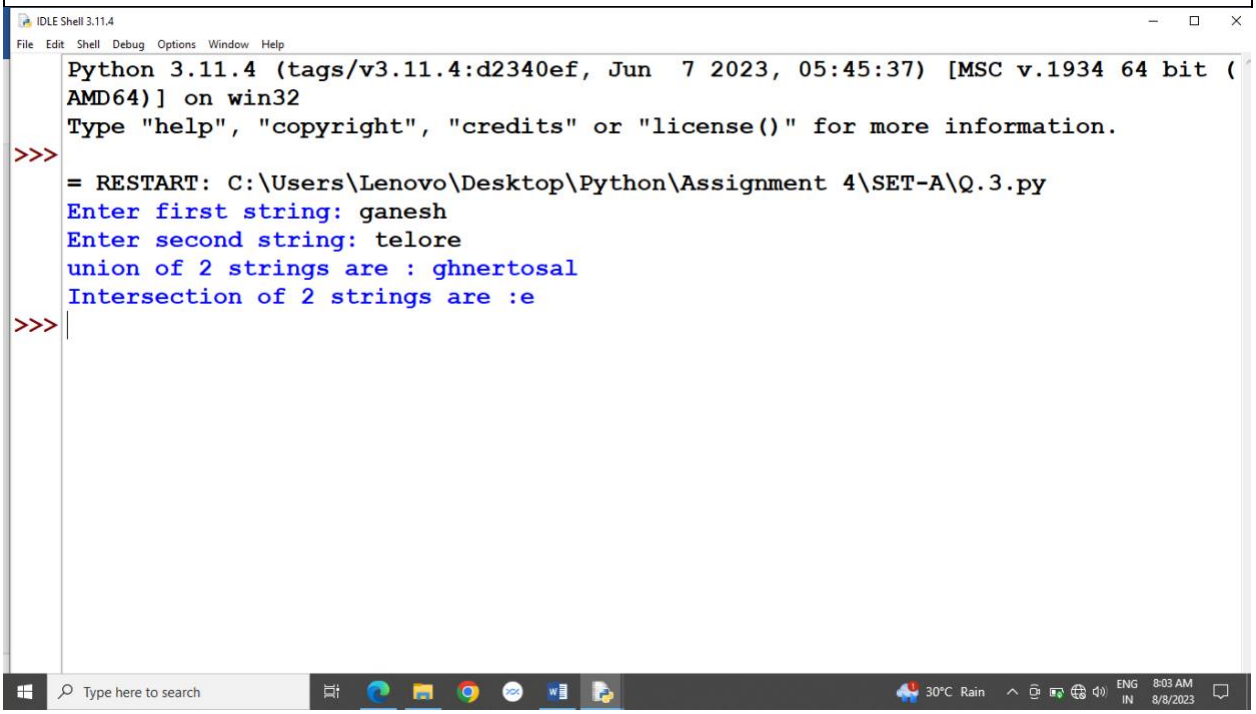
Q.3 Define a function that accept two strings as input and find union and intersection of them.

Ans:

```
def stroperation():
   x=str(input("Enter first string: "))
   y=str(input("Enter second string: "))
   a=set(x)
   b=set(y)
   uniond=a.union(b)
   res=''.join(uniond)
   print("union of 2 strings are :",res)
   interd=set(x) & set(y)
   res2=''.join(sorted(interd))
   print("Intersection of 2 strings are :" +str(res2))


stroperation()
```

Output:



ASSIGNMENT 4

SET-A

Q.4 Write a recursive function to calculate sum of digits of a given input number.

Ans:

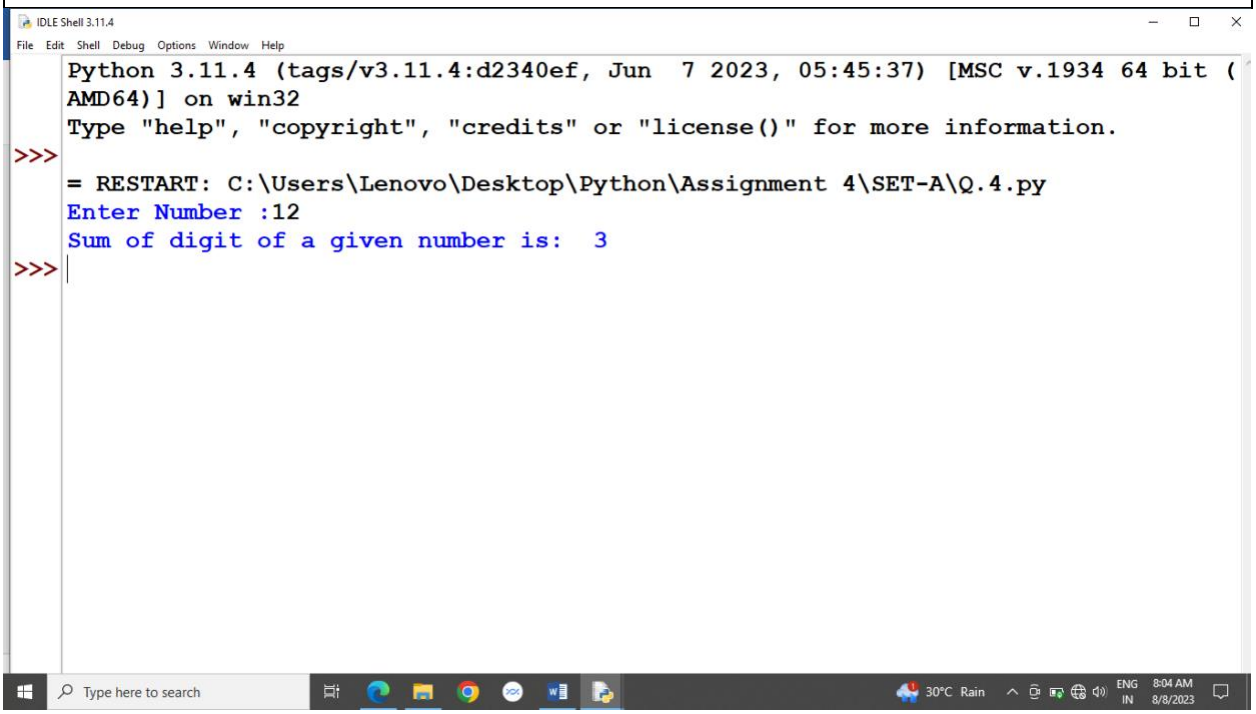
```
def sumofdigit():
   a=int(input("Enter Number :"))
   sum=0
   while(a!=0):
      sum=sum+(a%10)
      a=a//10

   print("Sum of digit of a given number is: ",sum)



sumofdigit()
```

Output:



ASSIGNMENT 4

SET-A

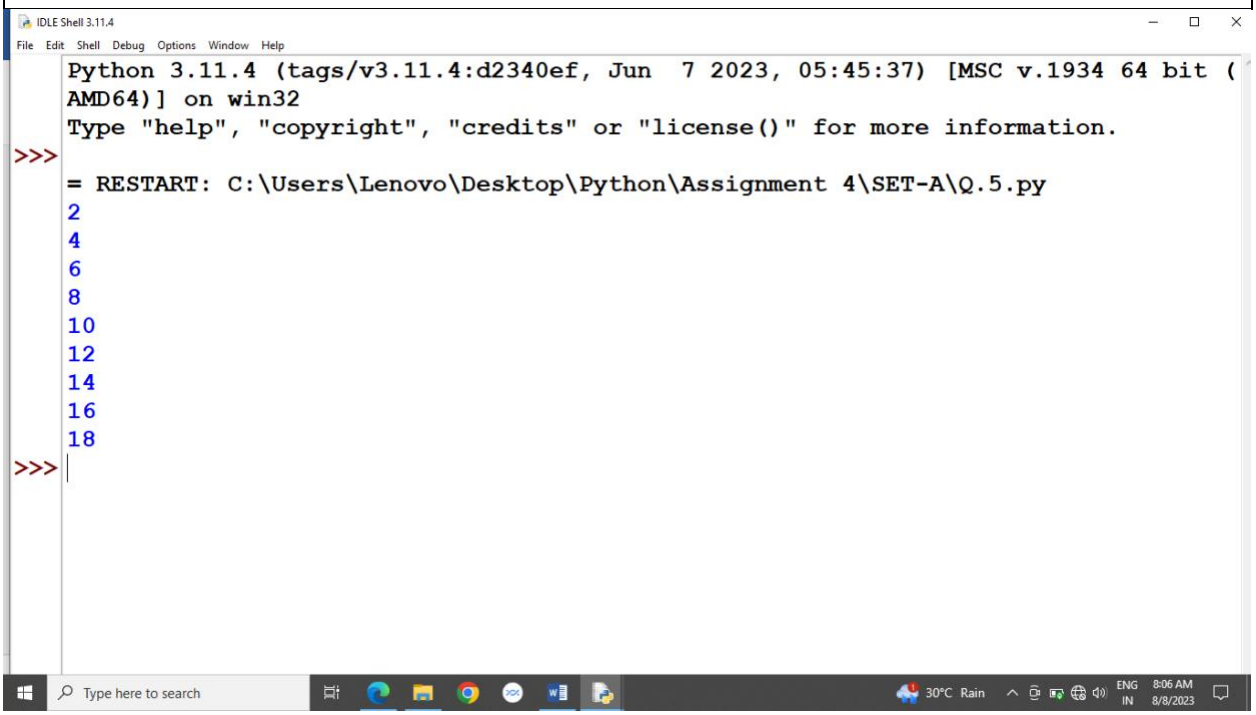
Q.5 Write generator function which generate even numbers up to n

Ans:

```
def evengenerator(n):
   for i in range(2,n):
      if(i%2==0):
         print(i)

n=20
evengenerator(n)
```

Output:



ASSIGNMENT 4

SET-B

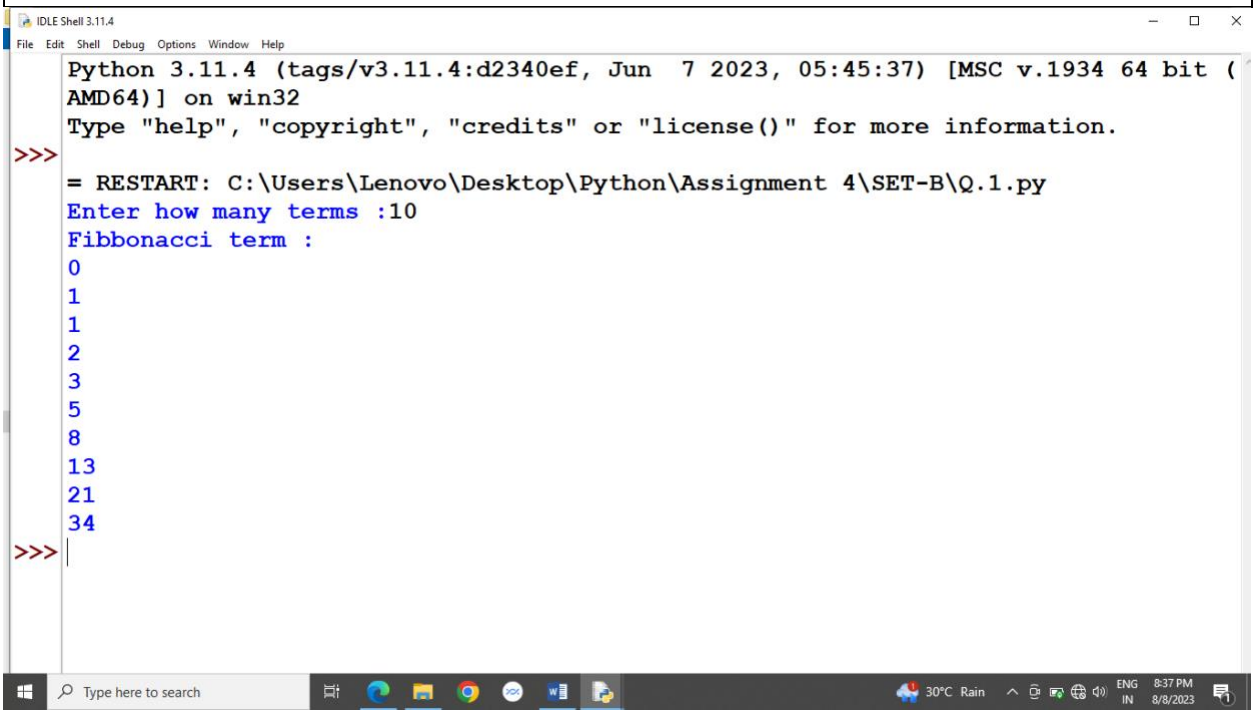
Q.1 Write a python script to generate Fibonacci terms using generator function.

Ans:

```
def generator():
   terms=int(input("Enter how many terms :"))
   n1=0
   n2=1
   count=0
   if terms<=0:
      print("Limit should be Positive")
   elif terms==1:
      print("Fibbonacci term :",n1)
   else:
      print("Fibbonacci term :")
      while(count<terms):
         print(n1)
         n=n1+n2
         n1=n2
         n2=n
         count=count+1

generator()
```

Output:



ASSIGNMENT 4

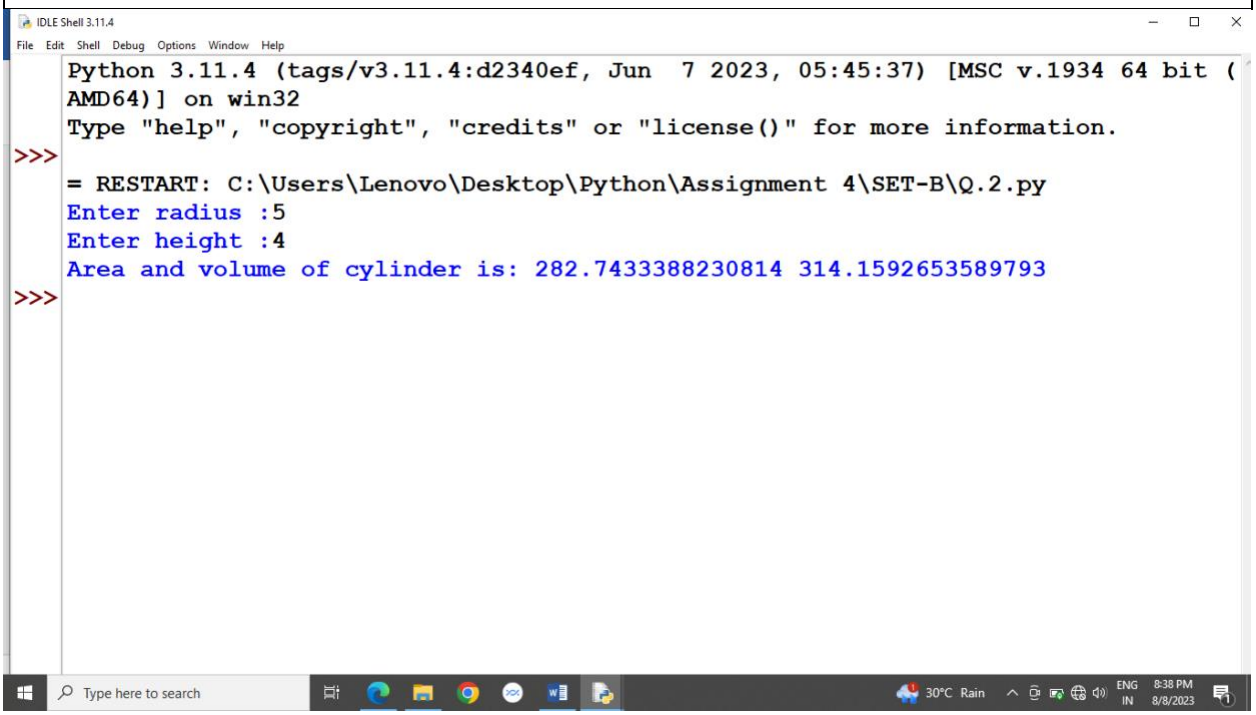
SET-B

Q.2 Write python script using package to calculate area and volume of cylinder and cuboids.

Ans:

```
import math
r=float(input("Enter radius :"))
h=float(input("Enter height :"))
area=((2*math.pi*r)*h)+((math.pi*r**2)*2)
volume=math.pi*r*r*h
print("Area and volume of cylinder is:",area,volume)
```

Output:



ASSIGNMENT 4

SET-B

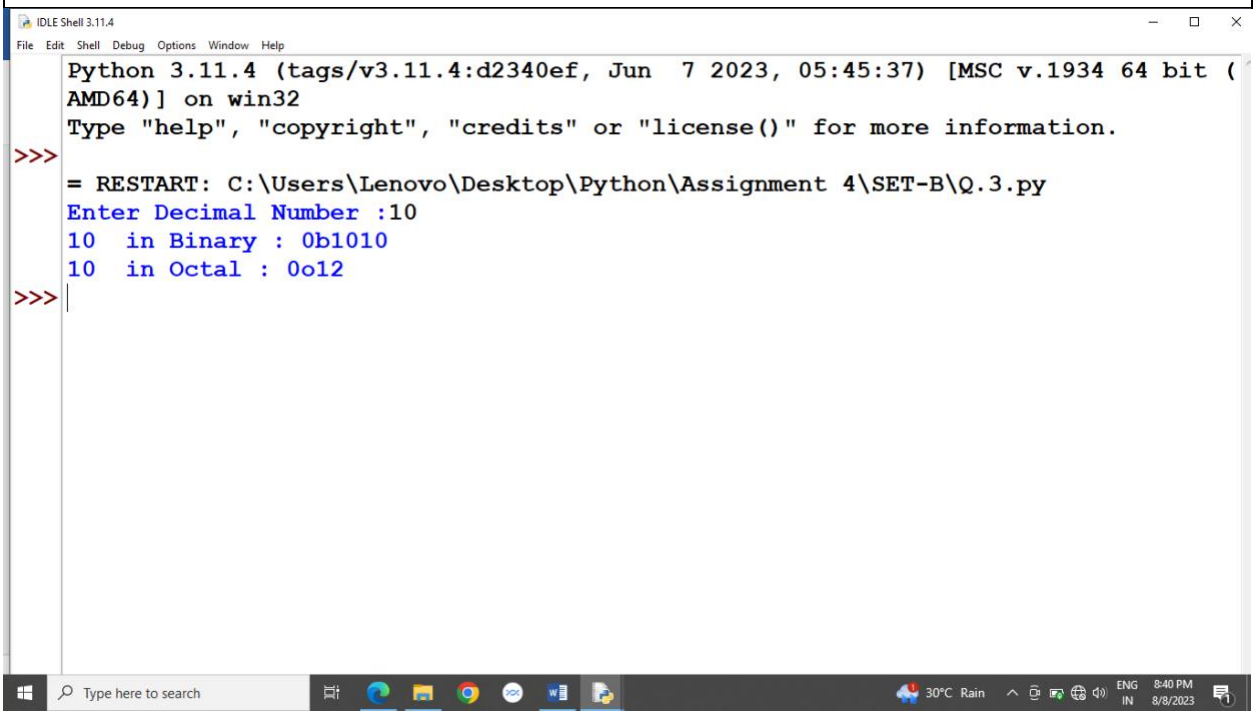
Q.3 Write a python script to accept decimal number and convert it to binary and octal number using function.

Ans:

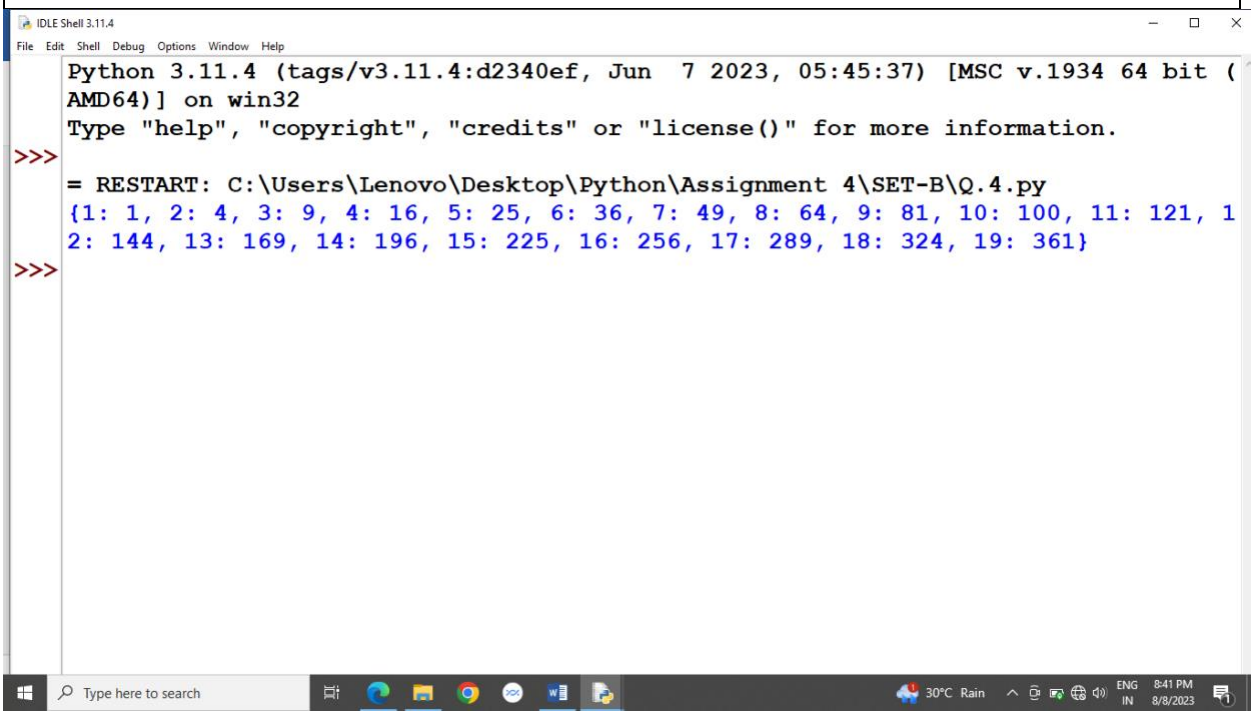
```
def convertdec():
   decimal=int(input("Enter Decimal Number :"))
   print(decimal," in Binary :",bin(decimal))
   print(decimal," in Octal :",oct(decimal))

convertdec()
```

Output:



ASSIGNMENT 4
SET-B
Q.4 Write a function which print a dictionary where the keys are numbers between 1 and 20 (both included) and the values are square of keys.
Ans: dic1=dict() for n in range(1,20):   dic1[n]=n**2 print(dic1)
Output:



ASSIGNMENT 4

SET-B

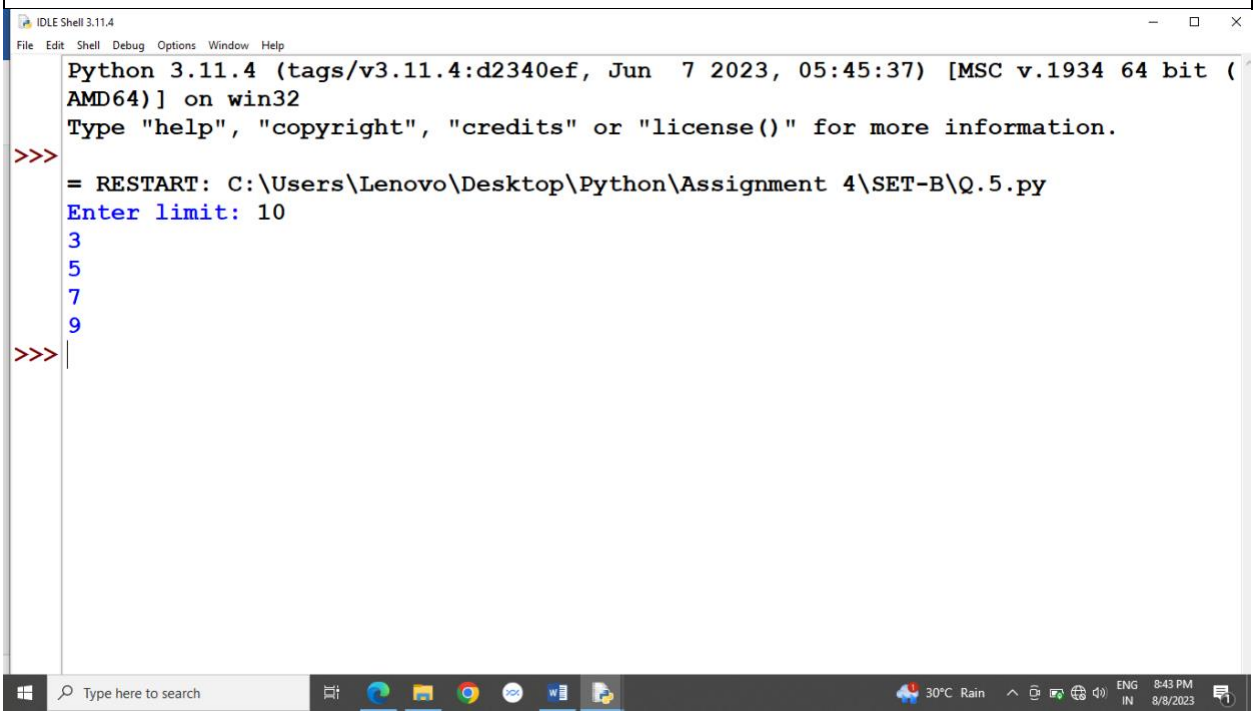
Q.5 Write a generator function which generates prime numbers up to n.

Ans:

```
def primenum():
   n=int(input("Enter limit: "))
   for x in range(2,n):
      if(x%2!=0):
         print(x)

primenum()
```

Output:



ASSIGNMENT 4

SET-C

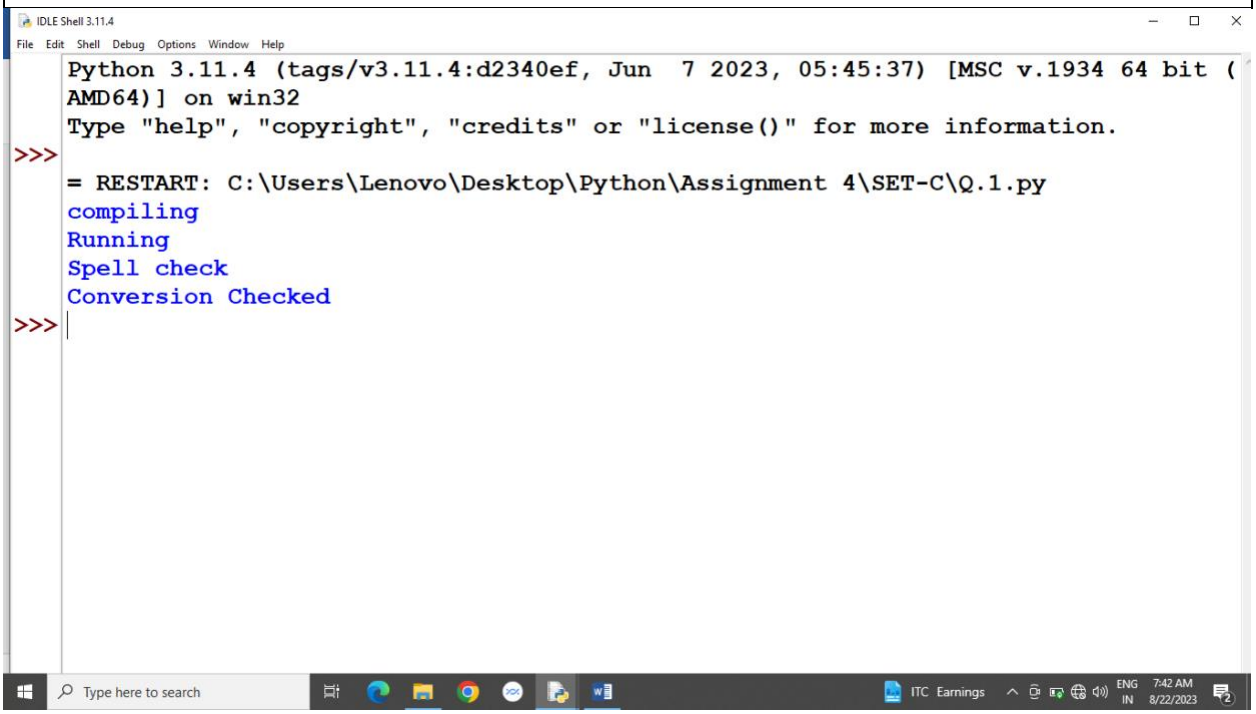
Q.1 Write a program to illustrate function duck typing.

Ans:

```
class python:
   def run(self):
      print("compiling")
      print("Running")
      print("Spell check")
      print("Conversion Checked")
class run2:
   def code(self,ide):
      ide.run()

ide=python()
desk=run2()
desk.code(ide)
```

Output:



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