

✓ Python Assignment Test 2

Name: Vishal Rajesh Mahajan

Roll No: 63

Class: SE IT A3

Date:16-04-2024

Q1. Write a python code to illustrate the function 1. $y=e^x$ 2. $y=\sin x$

```
#importing Required Libraries
import math
import matplotlib.pyplot as plt

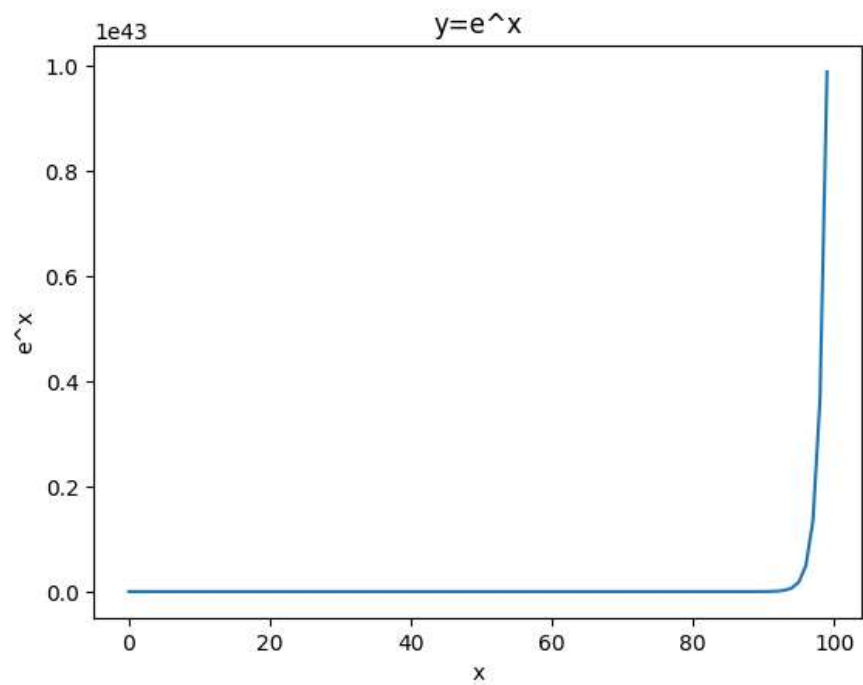
#Declaring X as a list
X=[]
for i in range(100):
    X.append(i)

#Declaring e_list for  $y=e^x$  and sin list for  $y=\sin x$ 
e_list=[]
sin=[]

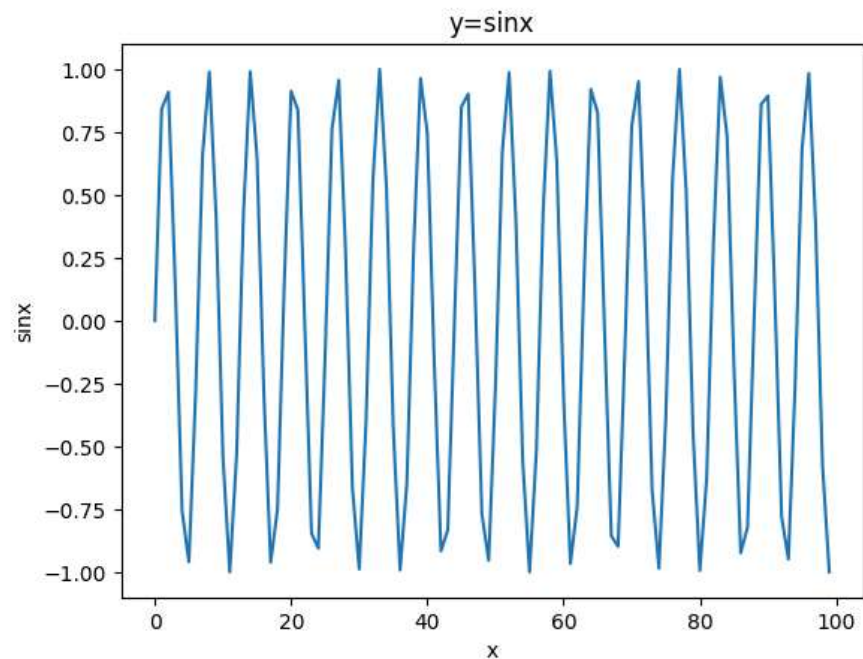
for i in X:
    e_list.append((math.e**i))

for i in X:
    sin.append((math.sin(i)))

plt.plot(X,e_list)
plt.title("y=e^x")
plt.xlabel("x")
plt.ylabel("e^x")
plt.show()
```



```
plt.plot(X,sin)
plt.title("y=sinx")
plt.xlabel("x")
plt.ylabel("sinx")
plt.show()
```



Q2. Write a python code to implement single inheritance and Polymorphism. Choose methods of your choice to represent single inheritance and Polymorphism.

```
class Student():
    def __init__(self,Name,Rollno):
        self.Name= Name
        self.Rollno = Rollno
        print("Name of Student is",Name)
        print("Roll number of Student is",Rollno)

class StudentDetails(Student):
    pass

name=input("Enter the Name of the Student: ")
rollno=input("Enter the Roll number of the Student: ")

Student_details=StudentDetails(name,rollno)

    Enter the Name of the Student: Vishal Rajesh Mahajan
    Enter the Roll number of the Student: 63
    Name of Student is Vishal Rajesh Mahajan
    Roll number of Student is 63
```