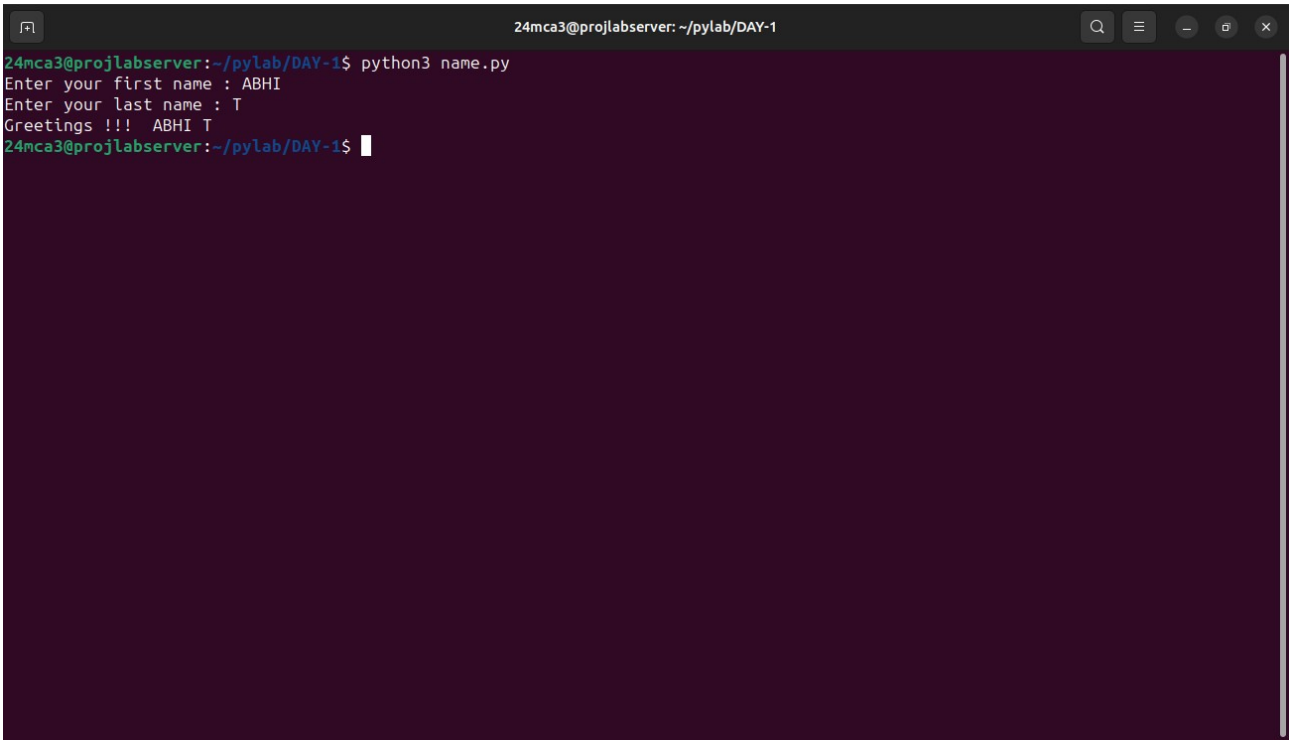
ABHIJITH T

ROLL NO : 3

PYTHON LAB – CYCLE – 1

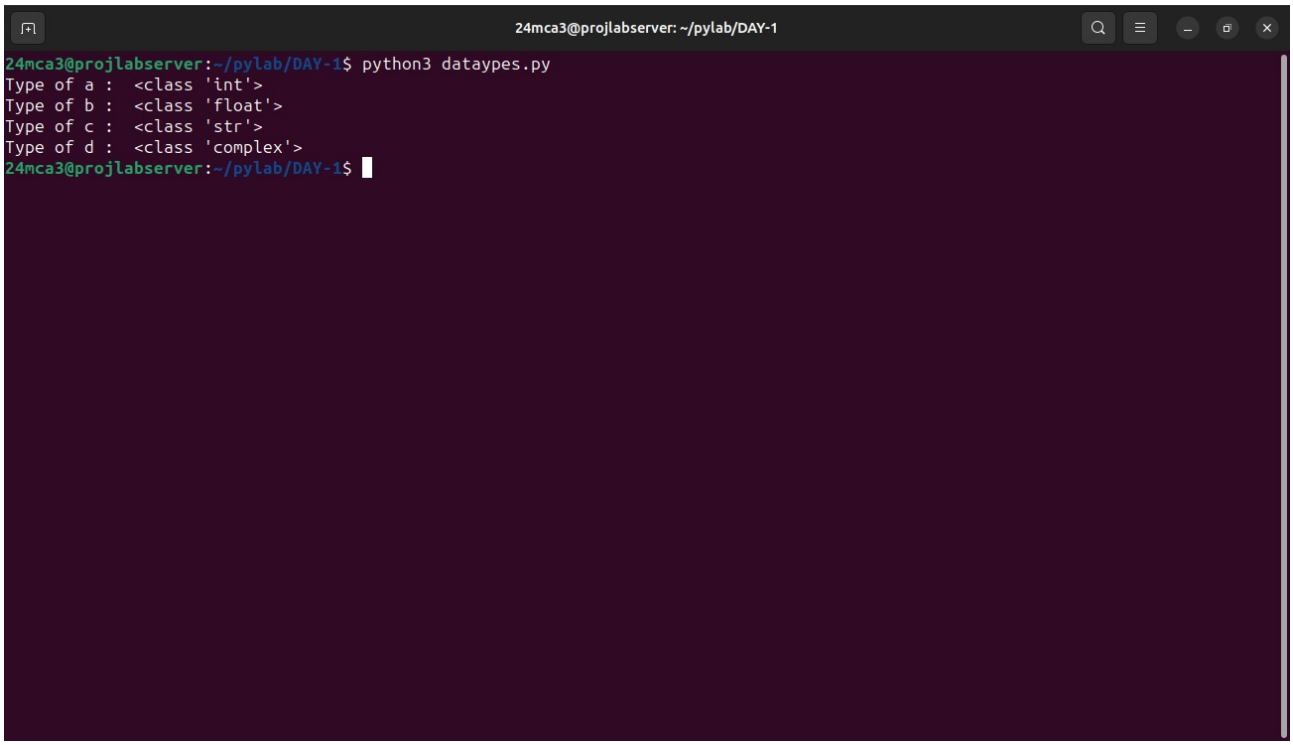
1. Write a program that prompts the user to enter his first name and last name and then displays a message “Greetings!!! First name Last name”.

```
fname = input("Enter your first name : ")
lname = input("Enter your last name : ")
print("Greetings !!! ",fname,lname)
```



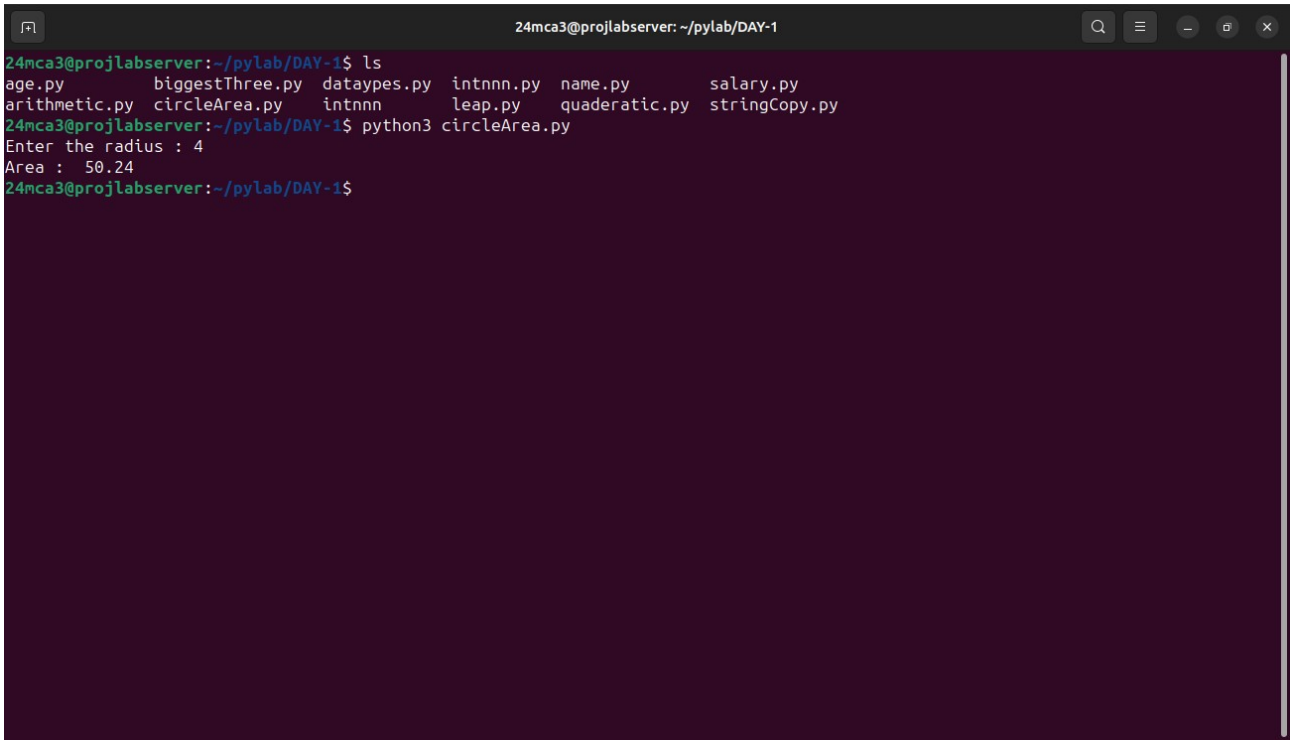
2. Write a program to demonstrate different number data types in python?

```
a = 23
b = 23.54
c = "Python"
d = 5 + 6j
print("Type of a : ",type(a))
print("Type of b : ",type(b))
print("Type of c : ",type(c))
print("Type of d : ",type(d))
```



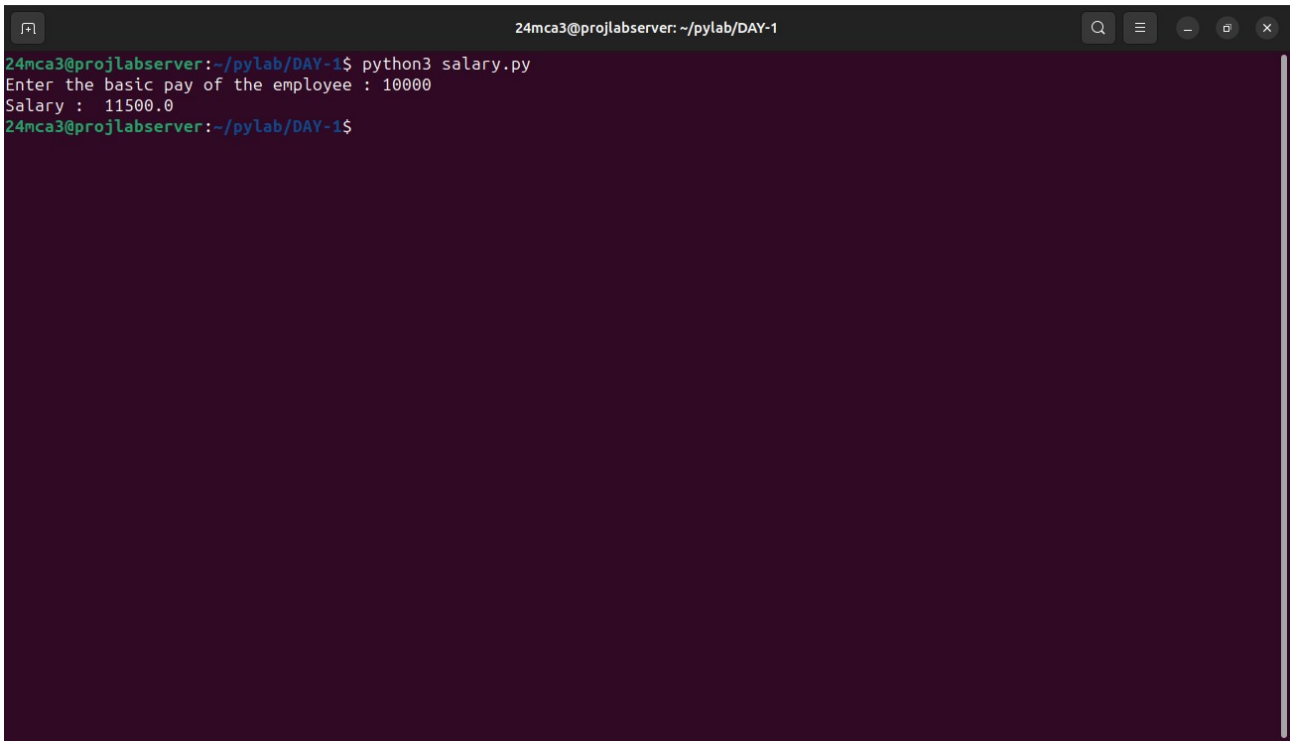
3. Write a program to calculate the area of a circle by reading inputs from the user.

```
r = float(input("Enter the radius : "))
area = 3.14 * r * r
print("Area : ",area)
```



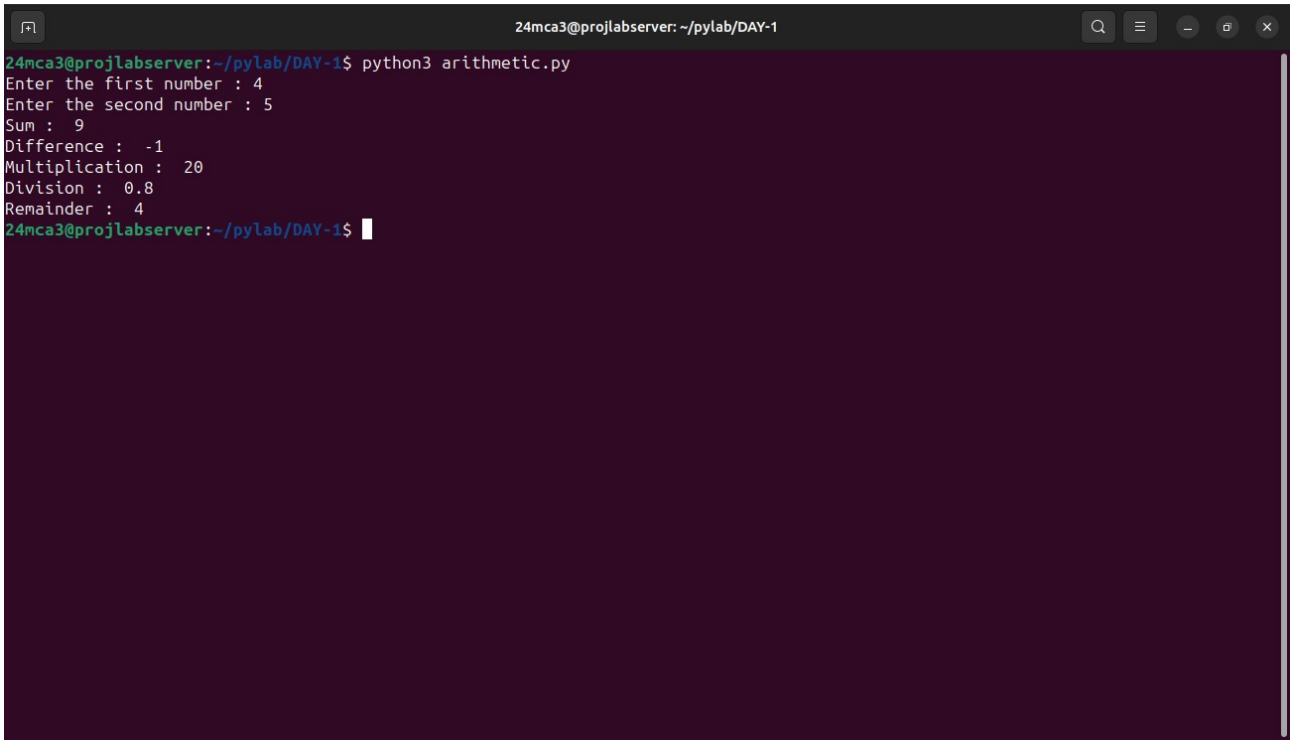
4. Write a program to calculate the salary of an employee given his basic pay (to be entered by the user) . HRA = 10 percent of the basic pay, TA = 5 percent of the basic pay.

```
bPay = int(input("Enter the basic pay of the employee : "))
HRA = 0.10 * bPay
TA = 0.05 * bPay
salary = bPay + HRA + TA
print("Salary : ",salary)
```



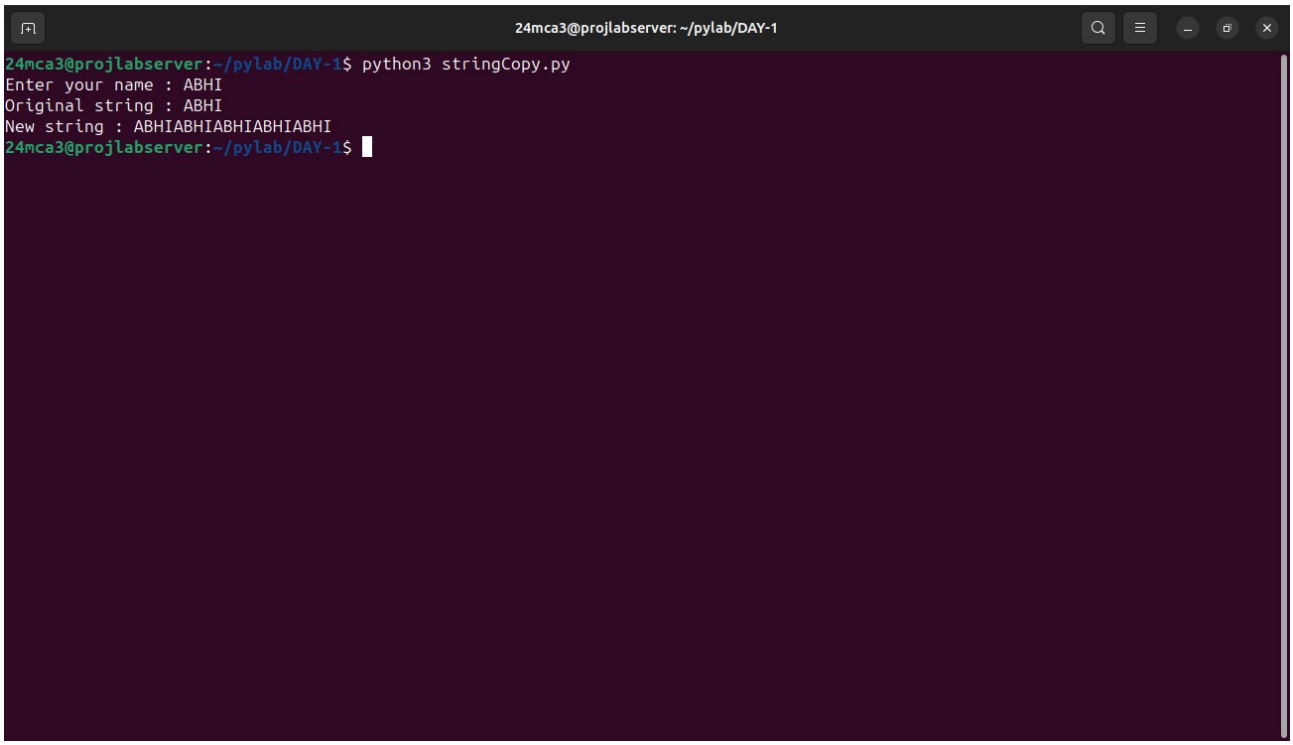
5. Write a Python program to perform arithmetic operations on two integer numbers.

```
a = int(input("Enter the first number : "))
b = int(input("Enter the second number : "))
print("Sum : ", a + b)
print("Difference : ", a - b)
print("Multiplication : ", a * b)
if(b == 0):
    print("Division - Cant divide by zero ")
else:
    print("Division : ", a / b)
if(b == 0):
    print("Modulus - Cant divide by zero ")
else:
    print("Remainder : ", a % b)
```



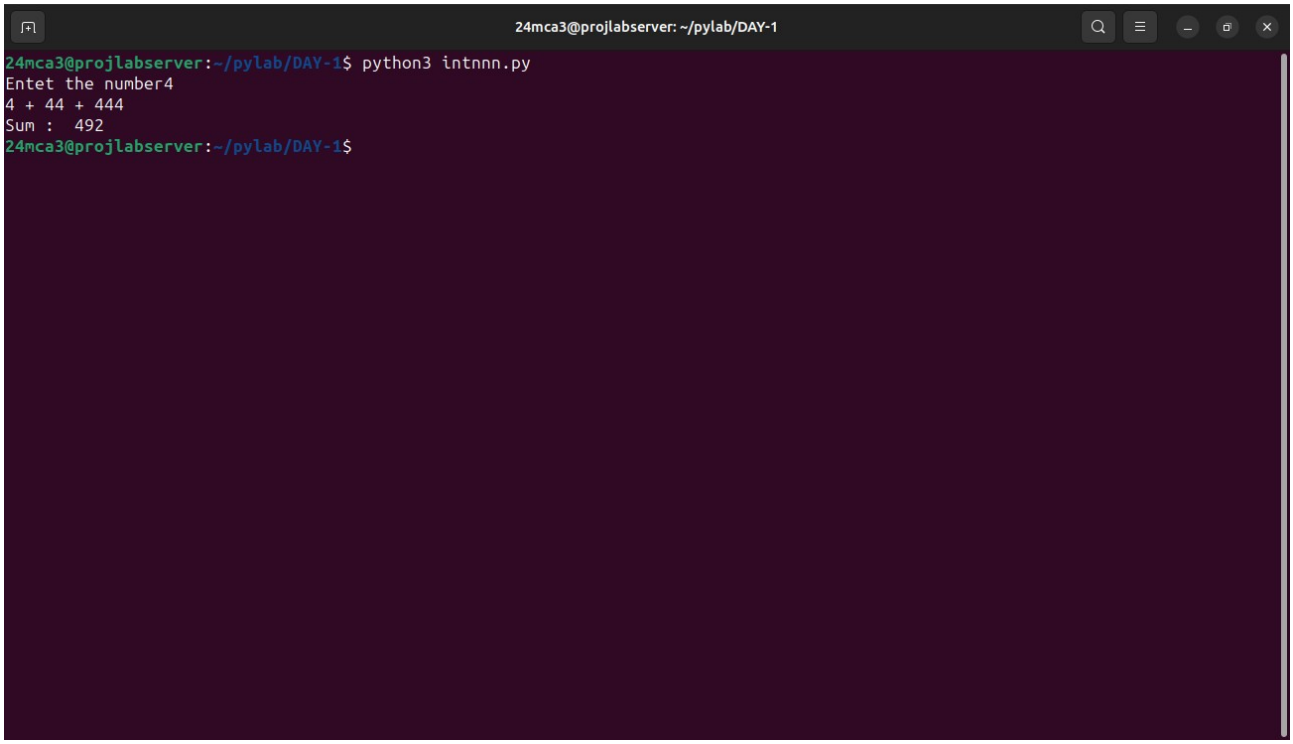
6. Write a Python program to get a string which is n (non-negative integer) copies of a given string.

```
name = input("Enter your name : ")
print(f"Original string : {name}")
print(f"New string : {name*5}")
```



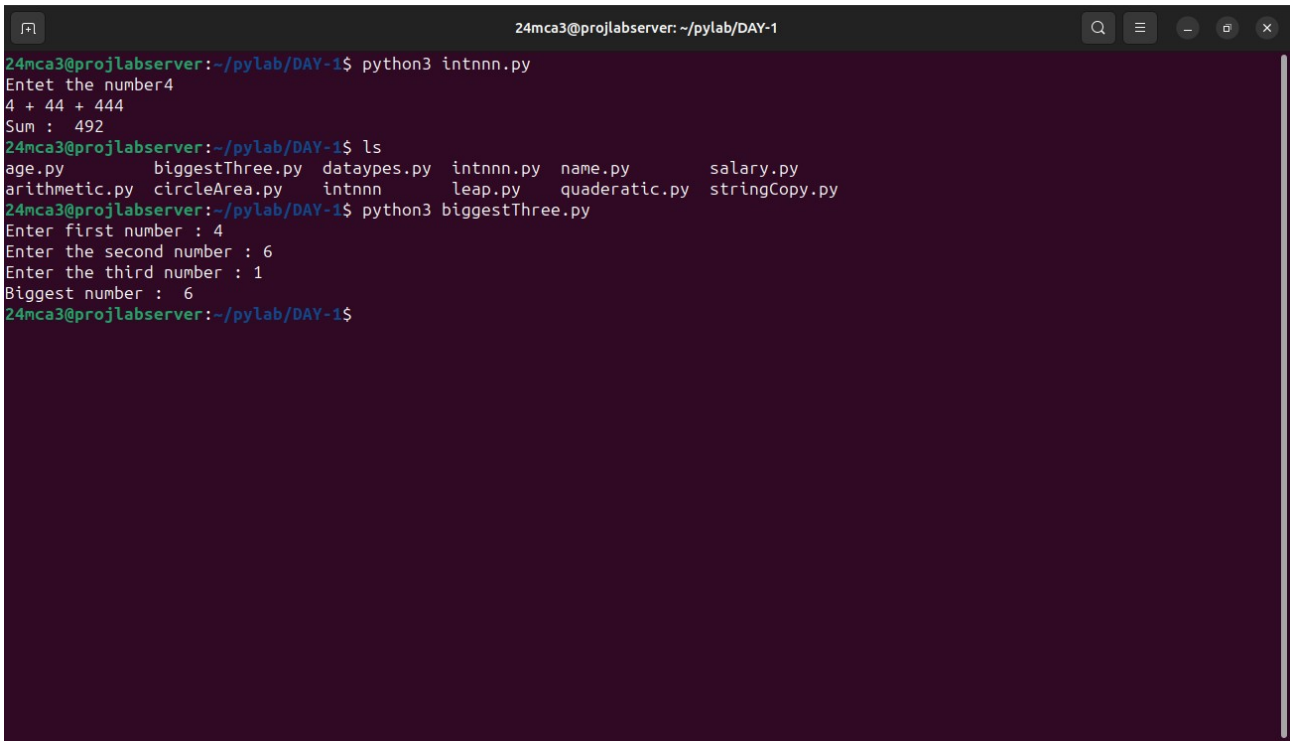
7. Program to accept an integer n and compute n+nn+nnn. [Hint : n = 5, then compute 5 + 55 + 555]

```
n = int(input("Enter the number"))
print(f"{n} + {n}{n} + {n}{n}{n}")
sum = n + (n*10 + n) + (n*100+n*10+n)
print(f"Sum : ", sum)
```



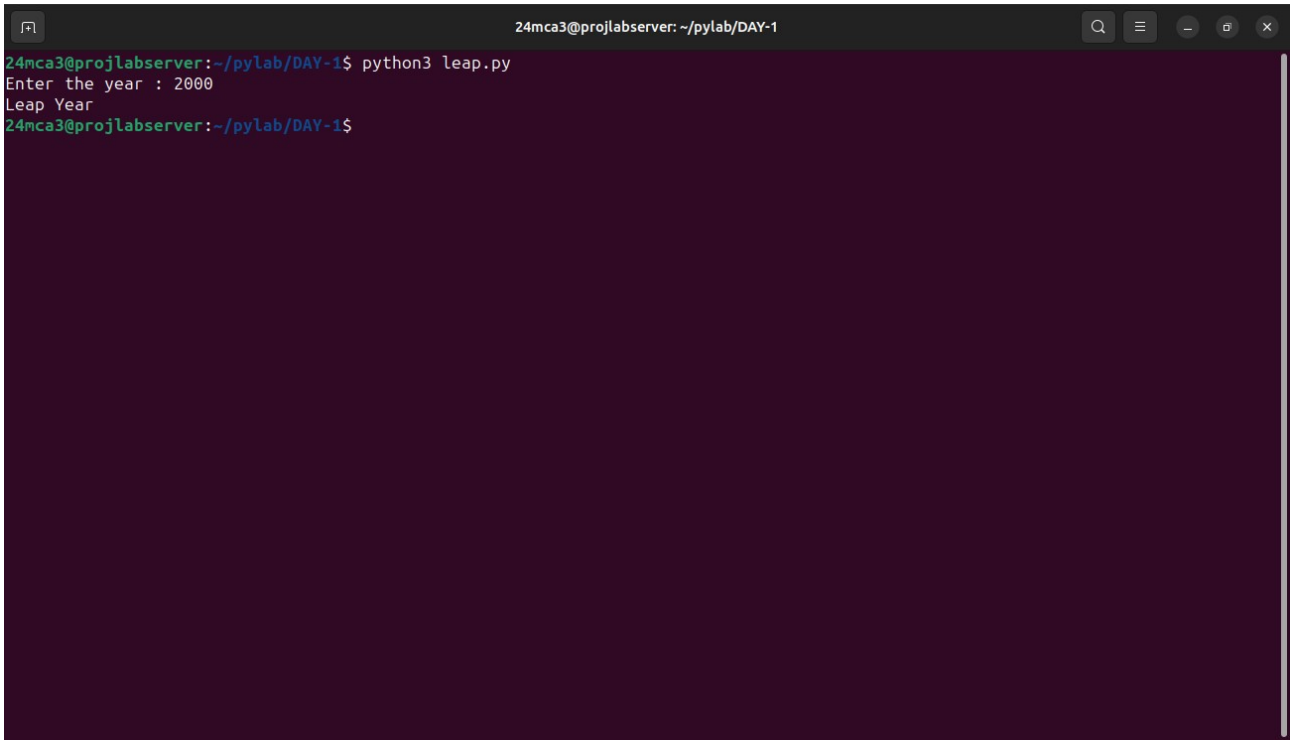
8. Find biggest of 3 numbers entered.

```
a = int(input("Enter first number : "))
b = int(input("Enter the second number : "))
c = int(input("Enter the third number : "))
if(a > b and a > c):
        print("Biggest number : ", a)
elif(b > a and b > c):
        print("Biggest number : ", b)
else:
        print("Biggest number : ", c)
```



9. Program to determine whether a year is a leap year or not.

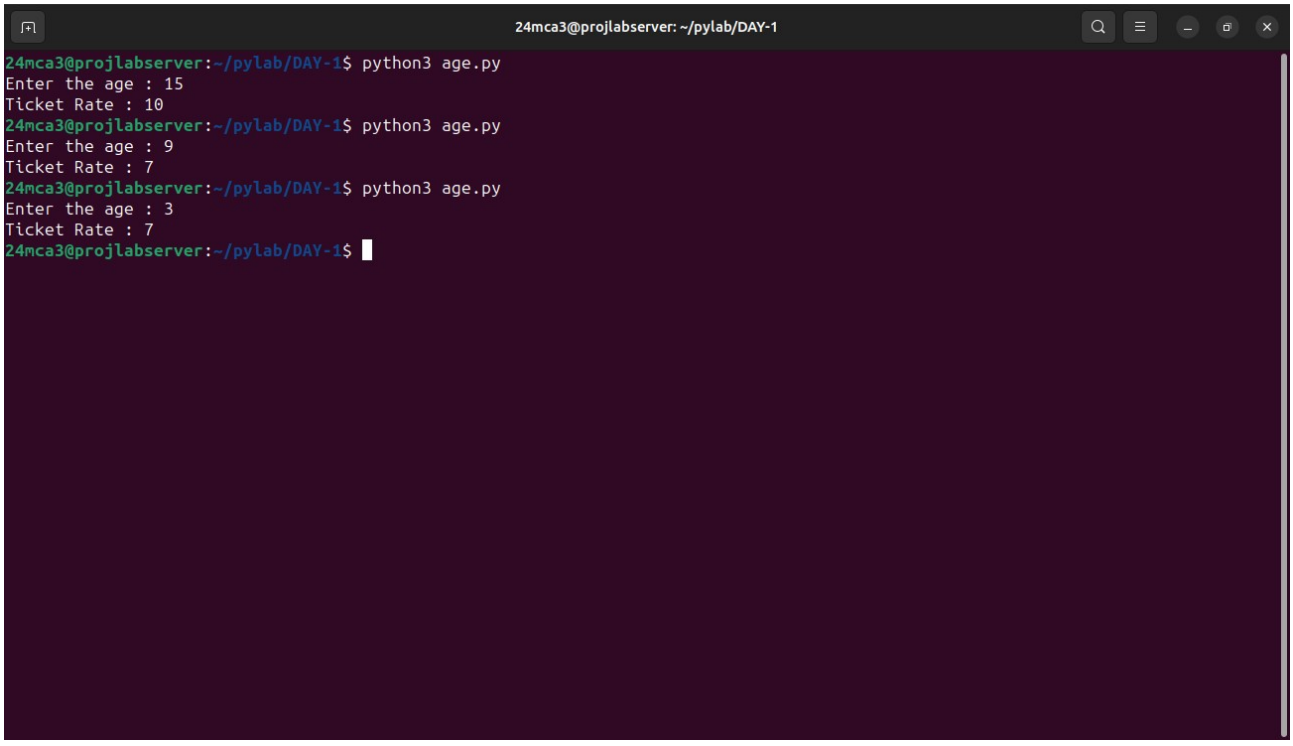
```
year = int(input("Enter the year : "))
if(year % 400 == 0):
        print("Leap Year")
elif(year % 100 == 0):
        print("Not a leap year")
elif(year % 4 == 0):
        print("Leap year")
else:
        print("Not a leap year")
```



10. Write a Python program to determine the rate of entry-ticket in a trade fair based on age as follows:

AGE	RATE
<10	7
>=10 AND <60	10
>=60	5

```
age = int(input("Enter the age : "))
if(age >= 60):
    print("Ticket Rate : 5 ")
elif(age < 60 and age >= 10 ):
    print("Ticket Rate : 10 ")
else:
    print("Ticket Rate : 7 ")
```



11. Write a Python program to solve a quadratic equation.

```
import math
print("Quaderatic equation ax^2 + bx + c")
a = float(input())
b = float(input())
c = float(input())
descr = (b*b) - (4*a*c)
if(descr == 0):
        print("Only one root value")
        ans = -b / (2 * a)
        print("x : ", ans)
elif descr > 0:
        sqrtValue = math.sqrt(descr)
        ansOne = (-b + sqrtValue) / (2 * a)
        ansTwo = (-b - sqrtValue) / (2 * a)
        print("X1 = ", ansOne)
        print("X2 = ", ansTwo)
else:
        print("Complex root")
        sqrtValue = math.sqrt(abs(descr)) / (2 *
a)
        print(-b/(2*a), "+i", sqrtValue)
        print(-b/(2*a), "-i", sqrtValue)
```

```
Quaderatic equation ax^2 + bx + c
1
2
1
Only one root value
x :  -1.0

=== Code Execution Successful ===
```

```
Quaderatic equation ax^2 + bx + c
1
1
1
Complex root
-0.5 +i 0.8660254037844386
-0.5 -i 0.8660254037844386

=== Code Execution Successful ===
```