

Student Name: _____

Roll No: _____

Section: _____

Programming Exercise

1. Write a program for converting Degree Centigrade to Fahrenheit.

```
1 celsius = int(input("Enter Temperature in Celsius: "))
2 fahrenheit = ( celsius * 9 / 5 ) + 32
3 print(f"Temperature in Fahrenheit is: {fahrenheit}")
```

Run degreeConverter(C to F) x

Enter Temperature in Celsius: 50
Temperature in Fahrenheit is: 122.0
Process finished with exit code 0

2. Write a program for converting Degree Fahrenheit to Centigrade.

```
1 fahrenheit = int(input("Enter Temperature in Fahrenheit: "))
2 celsius = 5 / 9 * ( fahrenheit - 32 )
3 print(f"Temperature in degree Celsius is {celsius}")
```

Run degreeConverter(F to C) x

Enter Temperature in Fahrenheit: 50
Temperature in degree Celsius is 10.0
Process finished with exit code 0

3. Write a program to calculate the area of rectangle.

```
1 height = int(input("Enter the Height of Rectangle in centimeters: "))
2 width = int(input("Enter the width of the rectangle in centimeters: "))
3 area = height * width
4
5 print(f"\nThe area of the given rectangle is {area} square centimeters.")
```

Run areaOfRectangle x

/home/okaymisba/Downloads/NED/venv/bin/python /home/okaymisba/Downloads/NED/Lab 1 (27-August-2024)/areaOfRectangle.py

Enter the Height of Rectangle in centimeters: 25

Enter the width of the rectangle in centimeters: 25

The area of the given rectangle is 625 square centimeters.

Process finished with exit code 0

4. Write a program to calculate the volume of a sphere.

```
1 from math import *
2
3
4 radius = int(input("Enter The Radius of Sphere in Centimeters: "))
5 volume = 4 / 3 * pi * radius ** 3
6 print(f"\nThe Volume of the Sphere of Radius {radius} is {volume}")
```

Run volumeOfSphere x

/home/okaymisba/Downloads/NED/venv/bin/python /home/okaymisba/Downloads/NED/Lab 1 (27-August-2024)/volumeOfSphere.py

Enter The Radius of Sphere in Centimeters: 25

The Volume of the Sphere of Radius 25 is 65449.84694978735

Process finished with exit code 0

5. Write a program that can write your name in upper case, lower case, and title case.

```
1 name = input("Enter Your name: ")
2 print(f"{name.upper()}")
3 print(f"{name.lower()}")
4 print(f"{name.title()}")
5
```

Run upperLowerTitleCases

/home/okaymisba/Downloads/NED/venv/bin/python /home/okaymisba/Downloads/NED/Lab 1 (27-August-2024)/upperLowerTi

Enter Your name: misbah

MISBAH

misbah

Misbah

Process finished with exit code 0

6. The formula to calculate compound interest annually is given by:

$$A = P (1 + R/100)^t$$

$$\text{Compound Interest} = A - P$$

Where,

A = Amount

P = Principal Amount

R = Rate

T = Time span

Calculate the compound interest by taking input from the user by using above formula.

```
1 principle_amount = int(input("Enter the Investment Amount: "))
2 rate_of_interest = float(input("What will be the Annual Interest Rate: "))
3 time = int(input("Enter Time Period in years: "))
4 amount = principle_amount * ( 1 + rate_of_interest / 100 ) ** time
5 compound_interest = amount - principle_amount
6
7 print(f"\nCompound Interest is {compound_interest}")
```

Run compoundInterestCalculator

/home/okaymisba/Downloads/NED/venv/bin/python /home/okaymisba/Downloads/NED/Lab 1 (27-August-2024)/compoundInter

Enter the Investment Amount: 10000

What will be the Annual Interest Rate: 5

Enter Time Period in years: 2

Compound Interest is 1025.0

Process finished with exit code 0