

## WEEK 1

1. Write a Python program that asks the user for his name and then welcomes him.
2. Write a Python program that accepts principle, rate, and time from the user and prints the simple interest.
3. Write a Python program that prompts the user to input principle, rate, and time and calculate compound interest.
4. Write a program in Python to calculate the area and perimeter of various polygons such as triangles, rectangles, and circles.
5. Write a program in Python to input 3 numbers separated by comma, and find the largest and smallest among them.
6. Write a program in Python to find the roots of a quadratic equation using Python.
7. Write a program in Python to print all prime numbers inside a range of numbers provided by the user.
8. Write a program in Python to print the mean and standard deviation of 5 scores input by the user.
9. Write a program in Python to create a calculator that can perform basic arithmetic operations.
10. Write a program in Python to convert temperatures between Celsius and Fahrenheit.
11. Write a program in Python to check whether an input is even or odd.
12. Write a program in Python to check whether an input is leap year or not.
13. Write a python program that prompts the user to enter a number and determines whether it is positive, negative, or zero.
14. Write a program that prompts the user to enter their age and prints the corresponding age group. The program should use the following age groups:

0-12:	Child
13-19:	Teenager
20-59:	Adult
60 and above:	Senior Citizen

15. Write a program that prompts the user to enter their weight (in kilograms) and height (in meters). The program should calculate the Body Mass Index (BMI) using the formula:  $BMI = \text{weight} / (\text{height} * \text{height})$ . The program should then classify the BMI into one of the following categories:

less than 18.5 - Underweight  
BMI between 18.5 and 24.9 - Normal weight  
BMI between 25 and 29.9 - Overweight  
BMI 30 or greater - Obesity