Assignment 2

1. Create a program that takes a total number of seconds as input and converts it to hours, minutes, and seconds. For example, given 3665 seconds, the program should output 1 hour, 1 minute, and 5 seconds.
2. Develop a program that calculates the Body Mass Index (BMI) of an individual. Prompt the user for their weight (in kilograms) and height (in meters) and calculate and print the BMI using the formula: $BMI = \frac{WEIGHT}{HEIGHT^2}$
3. Write a program that converts an amount in one currency to another, given the exchange rate. Prompt the user to enter the amount in United Arab Emirates Dirham, the exchange rate, and calculate and print the equivalent amount Rupees.
4. Extend the previous triangle area calculator program to also calculate and print the perimeter of the triangle. Prompt the user for the lengths of all three sides.
5. Create a program that takes a three-digit number as input and reverses its digits. For example, given the input 456, the program should output 654.
6. Write a program that calculates the percentage of a given number. Prompt the user for the percentage to be calculated and the total value. Print the result.
7. Create a program that takes a time in Dubai time zone and converts it to Indian time zone.
8. Create a program that calculates the sum of the first 'n' terms of an arithmetic sequence. Prompt the user for the first term, common difference, and the number of terms ('n'). Print the sum.
9. Write a program that calculates and prints the distance between two points (x1, y1) and (x2, y2) in a 2D plane. Prompt the user for the coordinates of the two points.
10. Create a Python program that calculates and prints the compound interest for a principal amount, given the interest rate and the number of years.
    Use the formula: $A = P\left(1 + \frac{r}{100}\right)^n$.Prompt the user for principal amount, interest rate and the number of years.

Deadline for submission: 18th Feb 2024

NOTE: Create Separate .py files. Click to File > New File > Run > Save As (give name as per your choice)