Assignment Number 2

1. **Write a Python program to check if a triangle is equilateral, isosceles or scalene.**
   Note :
   An equilateral triangle is a triangle in which all three sides are equal.
   A scalene triangle is a triangle that has three unequal sides.
   An isosceles triangle is a triangle with (at least) two equal sides.
   - **Input lengths of the triangle sides:**
   - **x: 6**
   - **y: 8**
   - **z: 12**
   - ***Expected Output:*** **Scalene triangle**

2. **Write a function called pizza_cost that takes the number of pizzas as a required argument, an optional cost per pizza (default $12), and an optional delivery charge (default $5). The function should return the total cost of the order.**
   - Input: number of pizzas = 3
   - Output: Total cost is $41

3. **Write a Python program to check the validity of passwords input by users.**
   Validation :
   - At least 1 letter between [a-z] and 1 letter between [A-Z].
   - At least 1 number between [0-9].
   - At least 1 character from [$#@].
   - Minimum length 6 characters.
   - Maximum length 16 characters.

4. **Write a function called final_grade that takes a student's test score as a required argument, an optional extra credit (default 0), and a maximum possible score (default 100). The function should return the final grade percentage.**
   - Input: score = 85, extra credit = 5
   - Output: Final grade is 90%

5. **Write a program using a loop that prints the Fibonacci series up to n terms. Implement a separate function to generate the series.**
   - Input: n = 5
   - Output: 0, 1, 1, 2, 3

6. **Write a function that accepts two numbers and an operator (+, -, *, /) as input and returns the result of the corresponding operation using if-else conditions.**
   - Input: 8, 4, "+"
   - Output: 12

7. **Write a function called is_divisable_by_11 that takes an integer as an parameter and returns whether it is divisible by 11 or not.**

8. **Write a function called fuel_cost that takes a distance as a required argument, mpg (default 50 mpg) and fuel cost (default $1 a litre) as optional arguments. The function should return the cost in dollars.**

9. **Write a Python program to get the next day of a given date.**

   Expected Output:
   - Input a year: 2016
   - Input a month [1-12]: 08
   - Input a day [1-31]: 23
   - The next date is [yyyy-mm-dd] 2016-8-24

10. **Write a Python program to find the median of three values.**

    Expected Output:
    - Input first number: 15
    - Input second number: 26
    - Input third number: 29
    - The median is 26.0