

**School of Computer Engineering and Technology**

**ASSIGNMENT NO: 3**

**Problem Statement:**

To check whether or not the triangle is a right-angled triangle using function with exception handling.

**Aim:**

Write a python program that accepts the length of three sides of a triangle as inputs. The program should indicate whether or not the triangle is a right-angled triangle using function with exception handling.

**Objectives:**

To learn and implement Function and Exception Handling

**Theory:**

1. Write about Python Function.
2. Write about Exception Handling using Python

# Platform: Windows/Ubuntu-Python Editor(jupyter notebook)

**Algorithm/Pseudo code:** Students should write algorithm/Pseudo code for the given problem statement.

**Input:** Accepts the length of three sides of a triangle as inputs from the user

**Output:** Displaywhether or not the triangle is a right-angled triangle**.**

**Conclusion:**

Studied python function using Exception handling.

**FAQs:**

1. What is a Function in Python Programming?
2. Is it Mandatory for a Python Function to Return a Value?
3. Consider three statements in a ‘try’ block: statement1, statement2, and statement3. It is followed by a ‘catch’ block to catch the exceptions that occurred during the execution of the ‘try’ block. Assume that the exception is thrown at statement2. Do you think the statement3 will be executed?
4. [Name some standard Python errors you know?](about:blank)

***Exercises on Function and Exception handling***

1. Accept the number from the user and display prime factors of that no.

e.g. Input number=100

prime factors=2,5

1. Write a function which will print all even numbers in a range 1 to 100
2. Write a python program which accepts three coefficients of the quadratic equation and generates real roots (with same or different values). If (b 2 - 4ac) < 0, use of math.sqrt function generates an exception as Value error“math domain error”. Show exception handling for ValueError, NameError and TypeError.