Assignment - 03

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Roll. No : 07
Panel I DATE:

* 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 3 sides of a triangle as inputs. The program should indicate whether or not the triangle is a right - angled using function with exception handling.

* Objectives :
To learn and implement function and exception handling.

* Platform :
Windows / Ubuntu - Python editor (jupyter notebook)

* ~~Algorithm / Pseudo code~~ :
~~Stu~~

* Input :
Accept the lengths of 3 sides of a triangle as inputs from user.

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

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* Conclusion :-
Studied python function using exception handling.

* FAQs :-

Q.1. What is a function in Python Programming?
→ In python programming, a function is a block of reusable code that performs a specific task.
Functions allow you to organise code into manageable pieces, making it easier to understand, debug and reuse.
A function typically takes input parameters, performs operations based on those parameters, and then returns a result.
Heres a simple example of a function :-

```
"""  def 'function_name' (parameters):
         block of instructions / steps
         .
         .
         .
                                    """

     function_name ()
```

Q.2. Is it Mandatory for a python function to return a value?
→ No, it is not mandatory for a python function to return a value. When a function does not contain a 'return' statement, it implicitly returns 'none'.

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Q.3. Consider three statements in a 'try' block: Statement 1, statement 2, and statement 3. It is followed by a 'catch' block to catch the exceptions that occured during the execution of 'try' block. Assume that the exception is thrown at statement 2. Do you think the statement 3 will be executed?

→ In this scenario, where exception occurs at 'statement 2', 'statement 3' will not be executed. The flow of execution will immediately exit the 'try' block upon encountering the exception, and the program control will be transfered to the appropriate 'except' block to handle the exception. If no suitable 'except' block is found, the program might terminate with an unhandled exception error.

Q4. Name some standard Python errors you know.

→ (i) Syntax Error : This error occurs when the code is not written according to the syntax rules of python.

(ii) Identation Error : When there is issue with Identation of your code.

(iii) Name error : When you try to access a variable or function name that is not defined within scope.

(iv) Key Error : When you try to access a key that does not exist in a dictionary.

(v) Zero division error : occurs when u divide a number by 0.

(vi) Attribute error : Occurs when you try to access or modify an attribute that does not exists.

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