Microsoft

edunet foundation

LAB MANUAL

Python

Implementation of the handle specific exceptions in Python

Objective:

- Learn how to handle logical errors using Python's try and except statements to manage exceptional cases that may occur during program execution.
- Learn how to handle exceptions in Python using the try-except block and how to specify different types of exceptions.

Duration 1 Hrs

Problem Statement:

In this task, you are required to implement exception handling in Python, focusing on handling specific types of exceptions such as ValueError and ZeroDivisionError. The goal is to make the program robust and able to recover gracefully when it encounters an error.

Procedure:

Task 1: To implement the ZeroDivisionError and ValueError

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```
def divide_numbers():
    try:
        num1 = float(input("Enter the first number: "))
        num2 = float(input("Enter the second number: "))
        result = num1 / num2
        print(f"Result of {num1} / {num2} = {result}")
    except ZeroDivisionError:
        print("Error: Cannot divide by zero.")
    except ValueError:
        print("Error: Please enter valid numeric values.")
    finally:
        print("Division operation completed.")
```

Output:

ZeroDivisionError,

```
divide_numbers()
```

```
Enter the first number:  34
Enter the second number:  0
Error: Cannot divide by zero.
Division operation completed.
```

ValueError,

```
divide_numbers()
```

```
Enter the first number:  ten
Error: Please enter valid numeric values.
Division operation completed.
```

Final output,

```
divide_numbers()
```

```
Enter the first number:  450
Enter the second number:  10
Result of 450.0 / 10.0 = 45.0
Division operation completed.
```