Date:- 24/9/25

Task 9:- Implement exceptions and exceptional handling in python

a) Student marks validation

Aim:- To write a Python program that validates student marks and handles exceptions if the marks are invalid.

Algorithm:-

1. Start the program
2. Accept marks input from the user
3. Convert the input into an integer.
4. Check if marks are less than 0 or greater than 100.
5. If so, raise an exception with an appropriate message.
6. Use try, except to catch and display the error message.
7. If valid, display the marks entered.
8. End the program.

Program:-

```
# student marks validation
try:
    marks = int(input("Enter student marks:"))
    if marks < 0 or marks > 100:
        raise ValueError("marks must be b/w 0 and 100").
    print("valid marks:", marks)
except ValueError as e:
    print("Error:", e)
```

Input:-

Enter student marks 120

Output:-

Error ! marks must be btw 0 and 100.

Result: The program successfully validates student marks and displays an error message for invalid input.

Input 1:-

Enter Numerator :- 10

Enter denominator = 0

output:-

error : Division by zero is not allowed

Input

Enter numerator :- ten

Enter denominator :- 2

output:-

Error :- Invalid Input :- Please enter Numeric values only.

6) Division calculator with exception Handling

Aim:- To write a python program that performs division of two numbers and handles exceptions like division by zero and invalid input.

Algorithm:-

1. Start the program
2. use a try block to take two numbers as input,
3. convert the inputs into float or int.
4. Perform divisions and display the result
5. Use except to handle.
   - zero Division error if denominator is zero
   - value Error if the input is not a valid number.

Program:-

```
# Division calculator with exception handling
try :
    Num1 = float (input ("Enter number for:"))
    Num2 = float (input ("Enter denomenator:"))
    result = number1 / num2
    print ("Result:", result)
except zero Division error
    print ("Error : Division by zero is not allowed.")
except Value Error:-
    print ("Error : Invalid input ! Please enter numeric
          values only.").
```

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PERFORMANCE (5)	5
RESULT AND ANALYSIS (5)	5
VIVA VOCE (5)	5
RECORD (5)	—
TOTAL (20)	15
SIGN WITH DATE	16/10/25

Result:- The program correctly performs division and handles both invalid and division by zero error.