

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 between 0 and 100!")

print("Valid marks:", marks)

except ValueError as e:

print("Error:", e).

Input:-

Enter student marks: 120.

Output:-

Error: Marks, must be between 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 1:-

Error: Division by zero is not allowed.

(b). 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 Division 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 Exy:

```
num 1 = float(input("Enter numerator:"))
```

```
num 2 = float(input("Enter denominator:"))
```

```
result = num 1 / num 2
```

```
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.")
```

INPUT 2:-

Enter numerator: 10

Enter denominator: 2

OUTPUT 2:-

Error: Invalid input: Please enter numeric value only.

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EX NO.	
PERFORMANCE (5)	
RESULT AND ANALYSIS (5)	
VIVA VOCE (5)	
RECORD (5)	
TOTAL (20)	
DATE	

Result:-

The program correctly performs division
And handles both invalid and division by zero.
Errors-

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