

29/9/25 Task 9: Implement Exceptions and exception handling in python.

Aim: To implement Exceptions and exceptional handling in python.

Algorithm:-

- 1) Start the program
- 2) Initialize a list of grades [85, 90, 78, 92, 88]
- 3) Prompt the user to enter the index
- 4) If the index is out of range an error message

Algorithm:-

```
# initialize the list of grades
grades = [85, 90, 78, 92, 88]
print("Grades List:", grades)
# Attempt to display the grade
print(f"The grade at index {index} is : {grades[index]}")
except ValueError:
    # Handle the case where the input is not
    # an integer
    print('Invalid input. Please enter a
numerical index.')

```

Result: Thus, the program has been verified and executed successfully

Output:-

Grades list : [85, 90, 78, 92, 88]

Enter the index of the grade you want to view : 10

Invalid index. Please enter a valid index

Output:-

Enter the numerator: 10

Enter the denominator: 0

ERROR!

Error: Division by zero is not allowed

## Q.2 Develop a Python calculator.

Aim:- You develop a Python calculator program that performs basic arithmetic operations.

### Algorithm:-

- 1) Starts the program
- 2) Prompts the user to enter two numbers
- 3) Attempts to divide the numerator
- 4) If the denominator is zero, catches the zero division error.

### Program:-

```
# def divide_numbers():  
    try:  
        numerator = float(input("Enter numerator"))  
        denominator = float(input("Enter denominator"))  
        result = numerator / denominator
```

except ValueError:

```
    print("Error: Please enter valid number")
```

```
# Call the function to execute the division  
operation  
divide_numbers()
```

Result ✓ Thus, the program has been

verified and executed successfully

VEL TECH	
PERFORMANCE (5)	5
RESULT AND ANALYSIS (5)	5
VIVA VOCE (5)	5
RECORD (5)	
TOTAL (20)	15
SIGN WITH DATE	