TASK-9.1

Implement Exceptions and exceptional handling in Python.

Aim:- To implement exception and exceptional handling in Python.

Algorithms

1. Start the Program.
2. Initialize a list of grades.
3. Prompts the user to enter the index of the grade.
4. Attempts to display the grade at the index.
5. If the index is out of range catches the index error.

Program:-

```
# initialize the list of grades
    grades = [85, 90, 78, 92, 88]
# display the grades list.
  Print ("Grades list: ", grades)
# Promt the user to enter the index of the grade
they want to view.
  Index = int (Input ("Enter the index to view: "))
# Attempt to display the grade
    Print (" The grade at index)
Except indexerror:
  # Handle the case where the index.
    Print (" Invalid error)
  # Handle the case where the input.
    Print (" Invalid error)
```

output:-

Gradeslist: [85_90_78_92_88]

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

Invalid error: Please enter a valid index.

output:

Enter the numerator: 10

Enter the denominator: 0

Error!

Error: Division by zero is not allowed.

Task-9.2

Aim:- To develop a Python calculator Program that Perfo
m basic arithmetic operations.

Algorithm:-

1. start the Program.
2. Prompts the used to enter two numbers.
3. attempts to divide the numerator by denominator
4. If the denominator is zero.

Program:-

```
# Function to Perform division.
def divide-numbers():
try:
# Prompt the user to enter.
  numerator = float.
# Prompt the user to enter.
  denominator = float.
# Attempt to Perfor division.
  result = numerator/denominator.
  Print ["result: {result}"].
Except zero division error:
#Handle division by zero error
  Print ("Error").
Except value error.
  # Handle invalid input.
  Print ("Error").
# call the function to execute:
  divide-numbers().
```

output:-

Enter a number: 15.

Exception occured = Invalid Age

Task-9.3

Aim:-

To building a Python application to determine if a person is eligible to vote based on their age.

Algorithm:-

1. Define the custom exception.
2. Prompt the user for input
3. check if the age is below 18.
4. Raise an exception.
5. Handle the exception with a custom.

Program:-

```
# define Python user-defined exceptions.
class invalid Age exceptions.
 Raised when the input value.
# You need to guess this number
    number = 18.
try:
  input-num = int(input))
  If input-num < number.
   raise invalid age exception.
  else:
    print ("eligible to vote")
except Invalid exception
    print (" Exception occurred").
```

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EX.NO. exception	4
PERFORMANCE (5)	5
RESULT AND ANALYSIS (5)	5
VIVA VOCE (5)	5
RECORD (5)	
TOTAL (20)	
: WITH DATE	15

Result:- Thus the Program for implement exceptions and handling is executed and verified successfully.