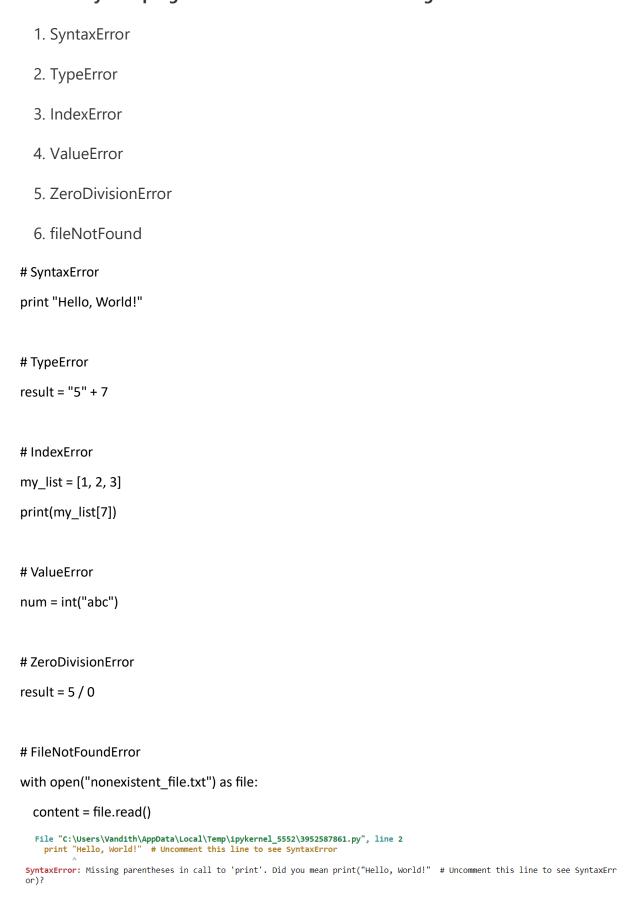
## 1. Write Python program to demonstrate the following:



#### 2. Write Python program to raise user defined exception

```
class AgeException(Exception):
  pass
age=int(input("Enter your age"))
def validate_age(voter_age):
  if voter_age<18:
    print("You can't vote")
  if voter_age>=18:
    print("You can vote")
  if voter_age < 0:
    raise AgeException("Age cannot be negative.")
try:
  validate_age(age)
except AgeException as ae:
  print("Custom Exception occurred:", ae)
Enter your age-10
You can't vote
Custom Exception occurred: Age cannot be negative.
3. Write Python program to demonstrate the use of try, except and finally block
try:
  num = int(input("Enter a number: "))
  result = 10 / num
  print("Result:", result)
except ZeroDivisionError:
  print("Cannot divide by zero.")
finally:
```

```
print("This block always executes.")

Enter a number: 0

Cannot divide by zero.

This block always executes.
```

#### 4. Write Python program to demonstrate default except block

```
try:
    num = int(input("Enter a number: "))
    result = 10 / num
    print("Result:", result)
except (ValueError, ZeroDivisionError):
    print("Invalid input or division by zero.")

Enter a number: Vk
    Invalid input or division by zero.
```

### 5. Write Python program to handle multiple exceptions in single except block

try:

```
num = int(input("Enter a number: "))
result = 10 / num
print("Result:", result)
except (ValueError, ZeroDivisionError):
print("Invalid input or division by zero.")

Enter a number: Vk
Invalid input or division by zero.
```

# 6. Write a program to read the contents of file and perform following operations

- a) display number of words
- b) display number of characters
- c) display number of vowels

```
d) display number of lines
   e) reverse each word and display it
def count_words(file_content):
  return len(file_content.split())
def count_characters(file_content):
  return len(file_content)
def count_vowels(file_content):
  vowels = "aeiouAEIOU"
  return sum(1 for char in file_content if char in vowels)
def count_lines(file_content):
  return file_content.count('\n') + 1
def reverse_words(file_content):
  words = file_content.split()
  reversed_words = [word[::-1] for word in words]
  return ' '.join(reversed_words)
try:
  with open("sample.txt", "r") as file:
    content = file.read()
    print("Number of words:", count_words(content))
    print("Number of characters:", count_characters(content))
    print("Number of vowels:", count_vowels(content))
    print("Number of lines:", count_lines(content))
    print("Reversed words:")
    print(reverse_words(content))
except FileNotFoundError:
```

# print("File not found.")

Number of words: 9

Number of characters: 41

Number of vowels: 12 Number of lines: 3

Reversed words:

iiH yM eman si htidnaV I ma gnihctaw LPI