Name-Rakesh Rajput

In [ ]:
```python
"""
Que 1-Explain why we have to use the Exception class while creating a
Custom Exception.

Ans 1-Custom exceptions provide us the flexibility to add attributes and
methods that are not part of a standard python exception. These can store
additional information, like an application-specific error code, or provide
utility methods that can be used to handle or present the exception to a user
"""
```

In [1]:
```python
"""
Que 2-Write a python program to print Python Exception Hierarchy.

"""

try:
    f=open("test.txt","r")
    f.write("write into my file")
except Exception as e:
    print("this is my Except block",e)
else:
    f.close()
    print("this will be excuted once your try will excuted without error")
```

this is my Except block [Errno 2] No such file or directory: 'test.txt'

In [11]:
```python
"""
Que 3. What errors are defined in the ArithmeticError class?Explain any two
with an example.
Ans 3-
ArithmeticError is thrown when an error occurs while performing mathematical
operations. These errors include attempting to perform a bitshift by a
negative amount, and any call to intdiv() that would result in a value outside
the possible bounds of an int.

"""
import logging
logging.basicConfig(filename='error.log',level=logging.ERROR)
try:
    10*-0
except ArithmaticError as e:
    logging.error('i am handling zerodivisionerror {}'.format(e))
```

In [7]:
```python
import logging
logging.basicConfig(filename='error.log',level=logging.ERROR)
try:
    10+-67
except ArithmaticError as e:
    logging("here i am handlind arthmatic operation error {}",e)
```

In [ ]:
```python
"""
Que 4-Why LookupError class is used? Explain with an example KeyError
and IndexError.

Ans 4-
Lookup Error acts as a base class for the exceptions that occur when a key or
index used on a mapping or sequence of a list/dictionary is invalid or does not
exists


Whereas the IndexError is raised when trying to access an invalid index within
a list ,the KeyError is raised when accessing an invalid key within a dict
"""
```

In [ ]:
```
"""
Que 5-Explain ImportError. What is ModuleNotFoundError?
Ans 5-In Python, ImportError occurs when the Python program tries to import
module which does not exist in the private table.


this error occurs when we are trying to access or use a module that cannot
be found.

"""
```

In [ ]:
```
"""
Que 6- List down some best practices for exception handling in python.
Ans 6

1)always use specific Exception not use generic Exception
2)always use proper message in the error
3)always try log your error
4)always avoid multiple exception handling
5)Document all the error
6)clean all resource

"""
```