Examples of Exception

1. Index error
2. Key error
3. Value error and type error
4. Zero division error

When these errors occur

L=[10, 20, 30, 40, 50]

index=int(input('enter a index') # user has to enter value here

print(L[index])

Program:

L=[10, 20, 30, 40, 50] # LIST OF ELEMENT

index= int(input('Enter index')) # ASKING USER TO ENTER INDEX

print(L[index])

- If we print valid index it will print else
- If not valid index it will print error
- So ,user itself is responsible for giving wrong index

What our program can do ?

- It can give a message"please enter a index which is from 0 to 4 only"
- Now there in output the error will be given as traceback, means it is showing in which line the error is appearing.

Index error: List index out of range

Name of the error.   This is the description of the error

Value Error and Type error:
val= int('abc') # here we are doing type conversion

res='2'+3 # this type is called as value error

We are saying here '2'+3
2 to be concatenate with 3
But it is a string how can a type int be concatenated with string

```
a=10
s='number'                  ———————————→  THIS IS TYPE ERROR
print(s+a)
```

Key error:

```
D=[1:'a', 2:'b', 3:'c']# dictionary list
key=int(input('Enter a key'))
print(L[key])
D={1:'a', 2:'b', 3:'c'}
key= int(input('Enter a key'))
print(D[key]) # it will show key error
```

Two possibilities of getting an error

1. Not entering a proper key and
2. entering string instead of integers

Zero Division Error:

```
a= int(input('Enter first number')
b=int(input('Enter second number')
res=a//b
print(res)# it will show zero division error
```