# Assignment No 12 :( Exception Handling)

**Aim:** Write a generic program to handle exception generated in following scenarios:

- Division by Zero
- Accessing a file which does not exist.
- Addition of two incompatible types
- Trying to access a nonexistent index of a sequence

**Theory:** The `try` block lets you test a block of code for errors.
The `except` block lets you handle the error. The `else` block lets you execute code when there is no error. The `finally` block lets you execute code, regardless of the result of the try- and except blocks.

Exception Handling

When an error occurs, or exception as we call it, Python will normally stop and generate an error message. These exceptions can be handled using the `try` statement:

Example

The block will generate an exception, because x is not defined:

```
Try:
        print (x)
except:
        print ("An exception occurred")
```

## Many Exceptions

You can define as many exception blocks as you want, e.g. if you want to execute a special block of code for a special kind of error:

Example

Print one message if the try block raises a and another for other errors: NameError

try :

print (x)

except NameError:

print("Variab1e x is not defined")

except :

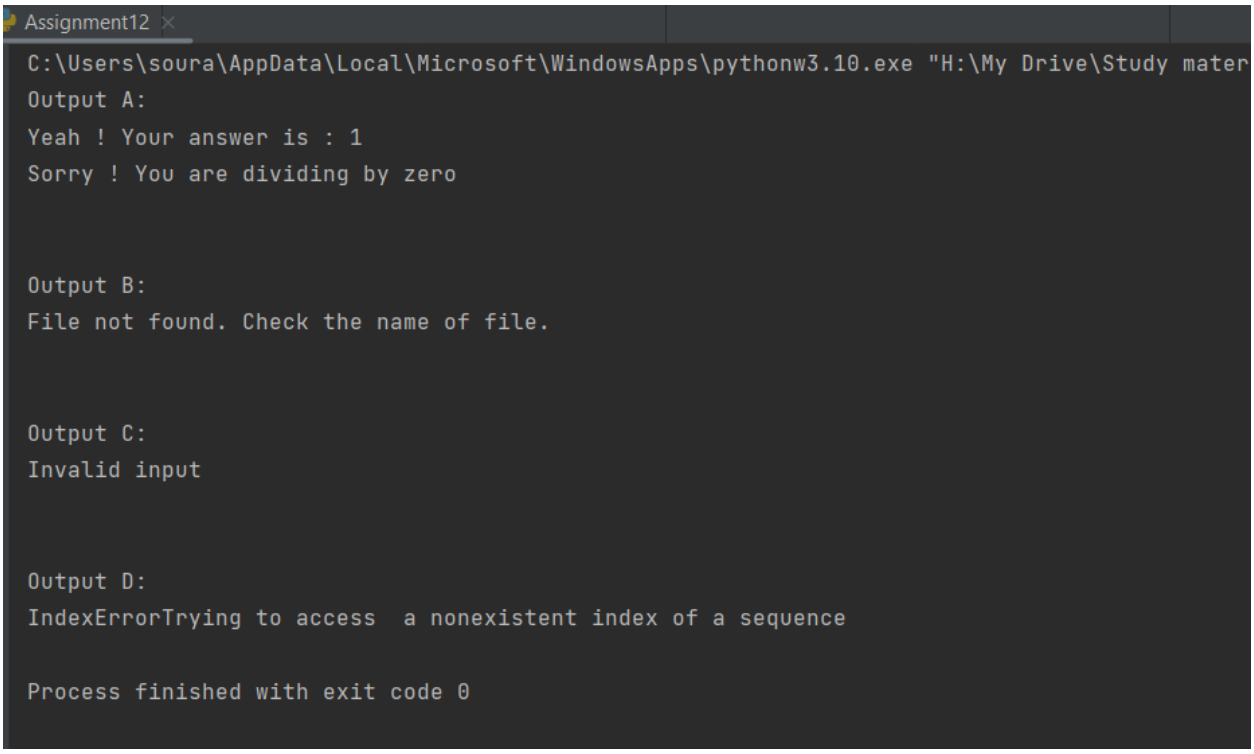
print("Something else went wrong")

## CODE:

```
def divide(x, y):
    try:
        result = x // y
        print("Yeah ! Your answer is :", result)
    except ZeroDivisionError:
        print("Sorry ! You are dividing by zero ")


print("Output A:")
divide(3, 2)
divide(3, 0)

print("\n")
print("Output B:")

try:
    file = open('student.csv')
except Exception as e:
    print('File not found. Check the name of file.')

print("\n")
print("Output C:")
try:
    print('10' + 10)
    print(1 / 0)
except (TypeError, ZeroDivisionError):
    print("Invalid input")

print("\n")
print("Output D:")


class SuperDuperList(list):
    def getindexdefault(self, elem, default):
        try:
```

```
            thing_index = self.index(elem)
            return thing_index
        except ValueError:
            print("IndexError"+""+"Trying to access    a nonexistent index
of a sequence")


mylist = SuperDuperList([0, 1, 2])
index = mylist.getindexdefault('asdf', -1)
```

**OUTPUT:**




**Conclusion:** Hence, we have learned the implementation of exception handling in python.