

### #Lab Exercise 5

#Q1. Write a program to handle the exception of ZeroDivisionError.

```
try:
    numerator=int(input("Enter the Numerator :"))
    denominator=int(input("Enter the Denominator :"))
    result=numerator/denominator
    print("Result : ",result)
except ZeroDivisionError:
    print("Divison by zero not allowed ")
except ValueError:
    print("Enter a valid Number")
except Exception as e:
    print("An error occurred",e)
```

Divison by zero not allowed

#Q2. Write a program to handle the exception of IndexError.

```
def index_access_program(my_list, index):
    try:
        value = my_list[index]
        return value
    except IndexError:
        print("Error: Index out of range.")
        return None
    finally:
        print("Index access attempted.")

my_list = [1, 2, 3]
index_to_access = 5
result = index_access_program(my_list, index_to_access)
if result is not None:
    print("Value at index", index_to_access, ":", result)
```

Error: Index out of range.  
Index access attempted.

### #Lab Exercise 6

#Q1. Write a program using the Regular Exception and create a function that accepts a string and searches it for a valid phone number.

```
import re
txt=input("enter the string")
print(txt)
x = re.search(r"(\d{3})-\d{3}-\d{4}|\d{3}-\d{3}-\d{4})", txt)
if x is not None:
    print("Phone Number found:",x.group())
else:
    print("Phone Number not found")
```

(123)-456-7894

Phone Number found: (123)-456-7894

*#Q2. Write a function that employs regular expressions to ensure the password given to the function is strong.*

```
import re
def password(string):
    if len(string)<8:
        return False
    if not re.search(r'[A-Z]',string):
        return False
    if not re.search(r'[a-z]',string):
        return False
    if not re.search(r'\d',string):
        return False
    if not re.search(r'[@#$$%^&*()_+{}[\]\:;<>,.?~]',string):
        return False

    return True

string=input(print("Enter a password : "))

print(string)
if (password(string))==True:
    print("The entered password is strong")
else:
    print("The entered password is weak")
```

Enter a password :

Password#1232

The entered password is strong