**Week-6: Exceptions in Python**

1. **Write a program that detects an Exception**

**Program:**

try:

num1=int(input("enter an number"))

num2=int(input("enter other number"))

result=num1/num2

print("result:",result)

except ZeroDivisionError:

print("Division by zero is not accepted")

except ValueError:

print("enter only integers")

except Exception as e:

print("an error occured",str(e))

output:

enter an number1

enter other number$

enter only integers

**output:**

enter an number1

enter other number0

Division by zero is not accepted

1. **Write a program that raise an Exception ( divide by zero error,voter’s age validity**

**Program:**  
def voter\_age(age):

try:

num=int(age)

if(num>18):

print("valid age")

elif(num<18):

print("not a valid age")

except Exception as e:

print("enter only integers:",str(e))

num=input("enter the age")

voter\_age(num)

**output:**

enter the age&

enter only integers: invalid literal for int() with base 10: '&'

1. **Write a program that raise an Exception as string(), student mark range validation**

**Program:**

def students\_mark(marks):

try:

num=int(marks)

if(num>0):

print("valid number")

elif(num<0 or num==0):

print("not valid")

except Exception as e:

print("enter only integers :",str(e))

num=input("enter students marks")

students\_mark(num)

**output:**

enter students marks#$

enter only integers : invalid literal for int() with base 10: '#$'

1. **Use the structure of exception handling all general purpose exceptions.**

**Program:**try:

num1=int(input("enter a number"))

num2=int(input("enter other number"))

result=num1/num2

print("result : ",result)

except Exception as e:

print("error occured :",str(e))

else:

print("division successful")

finally:

print("program completed successfully")

**output:**

enter a number2

enter other number#

error occured : invalid literal for int() with base 10: '#'

program completed successfully

**5. Write a python code to read a phone number and email-id from the user and**

**validate it for correctness**

**program:**  
import re

def Validate\_phone(phone):

pattern=r'^\d{10}$'

if re.match(pattern,phone):

return True

else:

return False

try:

phone=input("enter phone number")

if Validate\_phone(phone):

print("phone number is valid")

else:

print("phone number is not valid")

except Exception as e:

print("exception : ",str(e))

**output:**

enter phone number!@#$%^&\*()

phone number is not valid

**program:**

import re

def email\_id(id):

pattern=r'^[a-zA-Z0-9.\_+\*-]+@[a-zA-Z0-9.-]+\.[a-zA-Z]{2,}$'

if re.match(pattern,id):

return True

else:

return False

try:

id=input("enter your email-id")

if(email\_id(id)):

print("id is correct")

else:

print("id is incorrect")

except Exception as e:

print("Exception : ",str(e))

**output:**

enter your email-iddivya@gmail.com

id is correct