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
```

2. 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:
```

```python
        print("enter only
        integers:",str(e))
    num=input("enter the age")
        voter_age(num)
```

outp
ut:

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

3. Write a program that raise an Exception as string(), student mark range validation <u>Program:</u>

```python
        def
students_mark(mark
    s):    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: '#$'

4. Use the structure of exception handling all general purpose exceptions.

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```python
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

```python
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):

```python
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