Q1

class CovidError(Exception):

    def \_\_init\_\_(self,x,y):

        self.o=x

        self.sc=y

    def \_\_str\_\_(self):

        return "\n----\nPatient is Positive!\nOxygen level:"+str(self.o)+"\nHRCT Score:"+str(self.sc)

class patient:

    def \_\_init\_\_(self):

        self.name=input('Enter name: ')

        self.age=int(input("Enter age: "))

        self.oxy=float(input("Enter oxygen level: "))

        self.score=int(input("Enter HRCT score: "))

        try:

            if(self.oxy < 95.0 or self.score<8):

                raise CovidError(self.oxy,self.score)

            else:

                self.display()

        except CovidError as ce:

            print(ce)

    def display(self):

        print("Name: ",self.name)

        print("Age: ",self.age)

        print("Oxygen level: ",self.oxy)

        print("HRCT score: ",self.score)

        print("Patient is Negative!")

obj=patient()

Output:

Enter name: hrishikesh

Enter age: 21

Enter oxygen level: 98

Enter HRCT score: 17

Name: hrishikesh

Age: 21

Oxygen level: 98.0

HRCT score: 17

Patient is Negative!

E:\TYBCS\Python\College\Practice assignment 9>python 1.py

Enter name: kalidas

Enter age: 51

Enter oxygen level: 91

Enter HRCT score: 8

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Patient is Positive!

Oxygen level:91.0

HRCT Score:8

Q2

class UsernameError(Exception):

    def \_\_init\_\_(self,x):

        self.u=x

    def \_\_str\_\_(self):

        return self.u+"is an invalid username!"

class PasswordError(Exception):

    def \_\_init\_\_(self,x):

        self.p=x

    def \_\_str\_\_(self):

        return self.p+"is an invalid password!"

class user:

    def \_\_init\_\_(self):

        self.uname=input("Enter username: ")

        try:

            if len(self.uname)<=3:

                raise UsernameError(self.uname)

        except UsernameError as ue:

                print(ue)

                self.uname='user1' #default username

        self.pwd=input("Enter password:")

        try:

            if(len(self.pwd)<8 or self.pwd.isalnum()==False):

                raise PasswordError(self.pwd)

        except PasswordError as pe:

                print(pe)

                self.pwd="occeanic12" #default password

        self.display()

    def display(self):

        print("Username : ",self.uname,"\nPassword : ",self.pwd)

ob=user()

Output:

Enter username: kman6969

Enter password:KaliCharan12109630

Username : kman6969

Password : KaliCharan12109630

Enter username: lnz

lnzis an invalid username!

Enter password:(\*#(\*&#@$(&

(\*#(\*&#@$(&is an invalid password!

Username : user1

Password : occeanic12

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Q3

import math

try:

    x = float(input("Enter a number: "))

    ans=math.sqrt(x)

    print("square root : ",ans)

except ValueError as ve:

    print(ve)

Output:

Enter a number: 8

square root : 2.8284271247461903

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