# class A:  
# def f(self):  
# print("Hello")  
# a=A()  
# #a.f()  
# #a.g()  
#  
# class B(A):  
# def f(self):  
# super().f()  
# print("Python") #Method overriding  
#  
# def g(self):  
# print("Hi")  
# b=B()  
# b.f()  
# b.g()  
  
#SINGLE INHERITANCE  
# class Person:  
# def \_\_init\_\_(self):  
# self.name=input("Enter the name:")  
# self.age=int(input("Enter the age:"))  
#  
# def showdetails(self):  
# print(self.name,self.age)  
# class Employee(Person):  
# def \_\_init\_\_(self):  
# super().\_\_init\_\_() #super() used to call the parent method \_\_init\_\_  
# self.empid=int(input("Enter the empid:"))  
# self.salary=int(input("Enter the salary:"))  
# def showdetails1(self):  
# #super().showdetails() #Super() is used to call the method show details()  
# print(self.empid,self.salary)  
# e=Employee()  
# e.showdetails()  
# e.showdetails1()  
  
#create a base class category with properties categoryname ,cateogry description and method showdetails() and subclass Product  
#with properties productname,productprice,productdescripion,productquantity and method showdetails()  
#and create 2 product objects and display their details  
# class Category: #Base Class  
# def \_init\_(self):  
# self.categoryname=input("Enter the category")  
# def showdetails(self):  
# print("Categoryname",self.categoryname)  
#  
# class Product(Category): #Child Class  
# def \_init\_(self):  
# super().\_init\_()  
# self.productname=input("Enter the product name")  
# self.productprice=int(input("Enter the price"))  
# self.description=input("Enter the description")  
# self.quantity=int(input("Enter the quantity"))  
# def showdetails1(self):  
# super().showdetails()  
# print("Categoryname", self.categoryname)  
# print("Productname",self.productname)  
# print("Productprice", self.productprice)  
# print("Productdescription",self.description)  
# print("Productquantity",self.quantity)  
#  
# p1=Product()  
# p2=Product()  
# p1.showdetails1()  
# p2.showdetails1()  
  
class Hospital:  
 def \_\_init\_\_(self):  
 self.hosname=input("Enter the hospital name:")  
 self.phone=int(input("Enter the phonenumber:"))  
 self.location=input("Enter the location:")  
 def showdetails(self):  
 print(self.hosname,self.phone,self.location,end=" ")  
class Department:  
 def \_\_init\_\_(self):  
 self.deptmane=input("Enter the department name:")  
 self.dphone=int(input("Enter the department phoneno:"))  
 self.doctorname=input("Enter the doctorname:")  
 def showdetails1(self):  
 print(self.deptname,self.dphone,self.doctorname,end=" ")  
class Patient(Hospital,Department):  
 def \_\_init\_\_(self):  
 Hospital.\_\_init\_\_(self)  
 Department.\_\_init\_\_(self)  
 self.pname=input("Enter the patient name:")  
 self.age=int(input("Enter the age:"))  
 self.gender=input("Enter the gender:")  
 self.mobile=int(input("Enter the mobile:"))  
 self.address=input("Enter the address:")  
 def showdetails2(self):  
 Hospital.showdetails(self)  
 Department.showdetails(self)  
 print(self.pname,self.age,self.gender,self.mobile,self.address,end=" ")  
p=Patient()  
p.showdetails2()

class Hospital:

def \_init\_(self):

self.hosname=input("Enter the hospitalname")

self.hosphone=int(input("Enter the phone"))

self.location=input("Enter the location")

def showdetails(self):

print(self.hosname,self.hosphone,self.location,end=" ")

class Department:

def \_init\_(self):

self.dname=input("Enter the departmentname")

self.dphone=int(input("Enter the phone"))

self.doctorname=input("Enter the doctorname")

def showdetails1(self):

print(self.dname,self.dphone,self.doctorname,end=" ")

class Patient(Hospital,Department):

def \_init\_(self):

Hospital.\_init\_(self)

Department.\_init\_(self)

self.pname = input("Enter the patientname")

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

self.gender = input("Enter the gender")

self.mobile=int(input("Enter the mobile"))

self.address=input("Enter the address")

def showdetails2(self):

Hospital.showdetails(self)

Department.showdetails1(self)

print(self.pname,self.age,self.gender,self.mobile,self.address,)

p=Patient()

p.showdetails2()