```
class person:
    def __init__(self,name,age):
        self.name=name
        self.age=age

class employee:
    def __init__(self, employee_id, salary):
        self.employee_id = employee_id
        self.salary = salary


class manager(person, employee):
    def __init__(self, name, age, employee_id, salary, department):
        person.__init__(self, name, age)
        employee.__init__(self, employee_id, salary)
        self.department = department

    def fun1(self):
        print("the department is:", self.department)
        print("name is:", self.name)
        print("employee id:", self.employee_id)
        print("employee salary:", self.salary)
        print("employee age is:", self.age)



x = manager("rakesh", 23, 22, 2000000000, "MCA")
x.fun1()
'''print("the department is:",x.department)
print("name is:" ,x.name)
print("employee id:",x.employee_id)
print("employee salary:",x.salary)
print("employee age is:",x.age)'''

print("----------------------------------------------------------------------------------------------------------")


class shape:
    def __init__(self,side):
        self.side=side
```

```
class triangle(shape):
   def __init__(self,side,height):
      super().__init__(side)
      self.height=height

   def area(self):
      area1=(0.5 * self.height* self.side )

      return area1

class rectangle(shape):
   def __init__(self,side,sideb):
      super().__init__(side)
      self.sideb=sideb

   def area(self):
      area1=(self.side * self.sideb)

      return area1

tri=triangle(10,20)
print("the area of a traingle is :",tri.area())

rec=rectangle(10,20)
print("the area of a rectangle is:",rec.area())

print("-----------------------------------------------------------------------------------------------------")

class A:
   def fun1(self):
      print("this is A")

class B(A):

   def fun2(self):
      print("this is B")

class C(A):

   def fun3(self):
      print("this is C")
```

```
class D(B,C):

    def fun4(self):
        print("this is D")

D.fun1(A)
D.fun2(B)
D.fun3(C)
D.fun4(D)

print("-----------------------------------------------------------------------------------------------------------")

#-----------------------------------------------------------------------------------------------------------------

class vechile:
    def __init__(self,make,model,year):
        self.make=make
        self.model=model
        self.year=year

class car(vechile):
    def __init__(self,make,model,year,numdoors):
        super().__init__(make, model, year)
        self.numdoors=numdoors

class bike(vechile):
    def __init__(self,make,model,year,numwheels):
        super().__init__(make, model, year)
        self.numwheels=numwheels

x=car("india","m9",2025,10)
print(x.numdoors)
print(x.year)
print(x.make)
print(x.model)

x=bike("china","m11",2030,20)
print(x.numwheels)
print(x.year)
print(x.make)
```

```
print(x.model)

#-----------------------------------------------------------------------------------------------------------
```