
Q1. employee class with 3 var and 2 methods, create objects and print them.

Code:

```
internal class employee
{
    private int employeeID;
    private string employeeName;
    private string employeeDesignation;

    public void Employe_data()
    {
        Console.Write("Enter your Id_no :");
        employeeID = Convert.ToInt32(Console.ReadLine());
        Console.Write("Enter your Name :");
        employeeName = Console.ReadLine();
        Console.Write("Enter your Designation :");
        employeeDesignation = Console.ReadLine();
        Console.WriteLine();
    }

    public void Employe_print_data()
    {
        Console.WriteLine($"Hello {employeeName}");
        Console.WriteLine($"your id_no : {employeeID}");
        Console.WriteLine($"your designation : {employeeDesignation}");
        Console.WriteLine();
    }
}

static void Main(string[] args)
{
    /*
    *****
    **                                     **
    *   * *Author   : Nalli_Prudhvi      *
    *                                     *
    *   * *Purpose: Employee class with 3 var and 2 methods, create objects and print *
    *               them.                  *
    *                                     *
    **                                     **
    *****
    **/

    var emp1 = new employee();
    var emp2 = new employee();
    var emp3 = new employee();
    emp1.Employe_data();
    emp2.Employe_data();
    emp3.Employe_data();
    emp1.Employe_print_data();
    emp2.Employe_print_data();
    emp3.Employe_print_data();
    Console.Read();
}
}
```

Output:

```
C:\WINDOWS\system32\cmd.exe
Enter your Id_no :20221
Enter your Name :bhanu
Enter your Designation :team_lead

Enter your Id_no :20222
Enter your Name :teja
Enter your Designation :devp

Enter your Id_no :20223
Enter your Name :prudhvi
Enter your Designation :ds

Hello bhanu
your id_no : 20221
your designation : team_lead

Hello teja
your id_no : 20222
your designation : devp

Hello prudhvi
your id_no : 20223
your designation : ds
```

2 Q. write 3 Def. of class and 4 points about object discussed in class

Answer:

Class:

- A. A class is group of variables and method.
- B. A class is like a design to create objects.
- C. A class consists of state and behavior.

Object

- D. Object is instance of class.
 - E. We can create any number of Objects
 - F. An object occupy memory.
 - G. Objects are reference type.
-

3Q. Write classes for : customer, product, seller, department.

Code:

```
internal class Program
{
    static void Main(string[] args)
    {
        /*
        *****
        **
        * * *Author   : Nalli_Prudhvi
        *
        * * *Purpose:  Write classes for : customer, product, seller, department.
        *               them.
        *
        **
        *****
        **/

        var cust1 = new Customer();
        var product1 = new Product();
        var Dept1 = new Department();
        var Seller1 = new Seller();
        cust1.Customer_data();
        cust1.Customer_print_data();
        product1.Product_data();
        product1.Product_print_data();
        Dept1.Department_data();
        Dept1.Department_print_data();
        Seller1.Seller_data();
        Seller1.Seller_print_data();
        Console.ReadLine();
    }
}

internal class Customer
{
    private int CustomerID;
    private string CustomerName;
    private string CustomerEmail;

    public void Customer_data()
    {
        Console.Write("Enter your CustomerID :");
        CustomerID = Convert.ToInt32(Console.ReadLine());
        Console.Write("Enter your CustomerName :");
        CustomerName = Console.ReadLine();
        Console.Write("Enter your CustomerEmailID :");
        CustomerEmail = Console.ReadLine();
        Console.WriteLine();
    }

    public void Customer_print_data()
    {
        Console.WriteLine($"your name      : {CustomerName}");
        Console.WriteLine($"your id_no   : {CustomerID}");
        Console.WriteLine($"your EmailId : {CustomerEmail}");
        Console.WriteLine();
    }
}

internal class Product
```

```
{
    private int Product_Price;
    private string Product_Brand;
    private string Product_Series;

    public void Product_data()
    {
        Console.Write("Enter your Product_Price :");
        Product_Price = Convert.ToInt32(Console.ReadLine());
        Console.Write("Enter your Product_Brand :");
        Product_Brand = Console.ReadLine();
        Console.Write("Enter your Product_Series :");
        Product_Series = Console.ReadLine();
        Console.WriteLine();
    }

    public void Product_print_data()
    {
        Console.WriteLine($"your Product_Price : {Product_Price}");
        Console.WriteLine($"your Product_Brand : {Product_Brand}");
        Console.WriteLine($"your Product_Series : {Product_Series}");
        Console.WriteLine();
    }
}

internal class Seller
{
    private int Seller_Id;
    private string Seller_Name;
    private string Seller_contact;

    public void Seller_data()
    {
        Console.Write("Enter Seller_Id :");
        Seller_Id = Convert.ToInt32(Console.ReadLine());
        Console.Write("Enter Seller_Name :");
        Seller_Name = Console.ReadLine();
        Console.Write("Enter Seller_contact :");
        Seller_contact = Console.ReadLine();
        Console.WriteLine();
    }

    public void Seller_print_data()
    {
        Console.WriteLine($"Seller_Id : {Seller_Id}");
        Console.WriteLine($"Seller_Name : {Seller_Name}");
        Console.WriteLine($"Seller_contact : {Seller_contact}");
        Console.WriteLine();
    }
}

internal class Department
{
    private int DeptID;
    private string DeptNumber;
    private string DeptType;

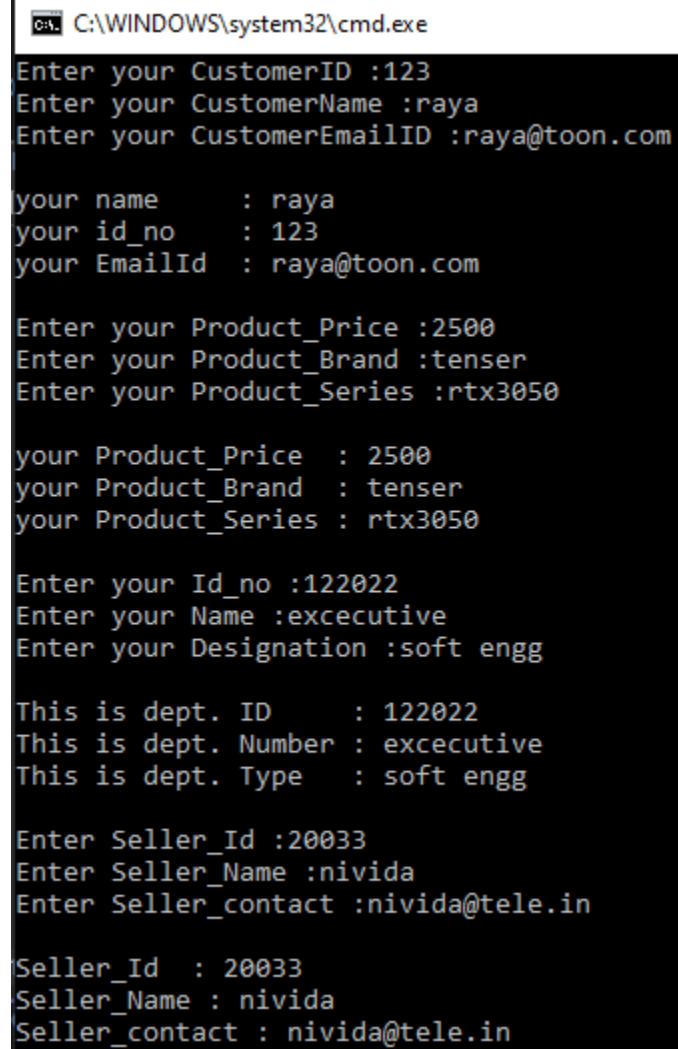
    public void Department_data()
```

```

    {
        Console.Write("Enter your Id_no :");
        DeptID = Convert.ToInt32(Console.ReadLine());
        Console.Write("Enter your Name :");
        DeptNumber = Console.ReadLine();
        Console.Write("Enter your Designation :");
        DeptType = Console.ReadLine();
        Console.WriteLine();
    }
    public void Department_print_data()
    {
        Console.WriteLine($"This is dept. ID      : {DeptID}");
        Console.WriteLine($"This is dept. Number : {DeptNumber}");
        Console.WriteLine($"This is dept. Type  : {DeptType}");
        Console.WriteLine();
    }
}

```

Output :



```

C:\WINDOWS\system32\cmd.exe
Enter your CustomerID :123
Enter your CustomerName :raya
Enter your CustomerEmailID :raya@toon.com

your name      : raya
your id_no     : 123
your EmailId   : raya@toon.com

Enter your Product_Price :2500
Enter your Product_Brand :tenser
Enter your Product_Series :rtx3050

your Product_Price  : 2500
your Product_Brand  : tenser
your Product_Series : rtx3050

Enter your Id_no :122022
Enter your Name :excecutive
Enter your Designation :soft engg

This is dept. ID      : 122022
This is dept. Number : excecutive
This is dept. Type    : soft engg

Enter Seller_Id :20033
Enter Seller_Name :nivida
Enter Seller_contact :nivida@tele.in

Seller_Id  : 20033
Seller_Name : nivida
Seller_contact : nivida@tele.in

```

4Q. To create class with 3 var and initializing the values with the object and print them.

```
internal class Employee
{
    public int Employee_ID;
    public string Employee_name;
    public int Employee_age;
    public int Employee_salary;

    public void Employee_Data()
    {
        Console.WriteLine($"your name      :{Employee_ID}");
        Console.WriteLine($"Employee_ID    :{Employee_name}");
        Console.WriteLine($"Employee_age   :{Employee_age}");
        Console.WriteLine($"Employee_age   :{Employee_salary}");
    }
}

internal class Program
{
    static void Main(string[] args)
    {
        /*
        *****
        **                                     **
        *  * *Author   : Nalli-Prudhvi          *
        *                                                     *
        *  * *Purpose:  To create calss with 3 var and initializing the values with in  *
        **               the object and print them.                      **
        *****
        */
        var emp1 = new Employee() { Employee_ID = 123, Employee_name = "shaw", Employee_age
        = 34, Employee_salary = 400000 };
        emp1.Employee_Data();
        Console.ReadLine();
    }
}
```

Output :

```
C:\WINDOWS\system32\cmd.exe
your name      :123
Employee_ID    :shaw
Employee_age   :34
Employee_age   :400000
Press any key to continue . . .
```

5Q. To create class with 3 var and create employees array object initialize the values of 5 employees.

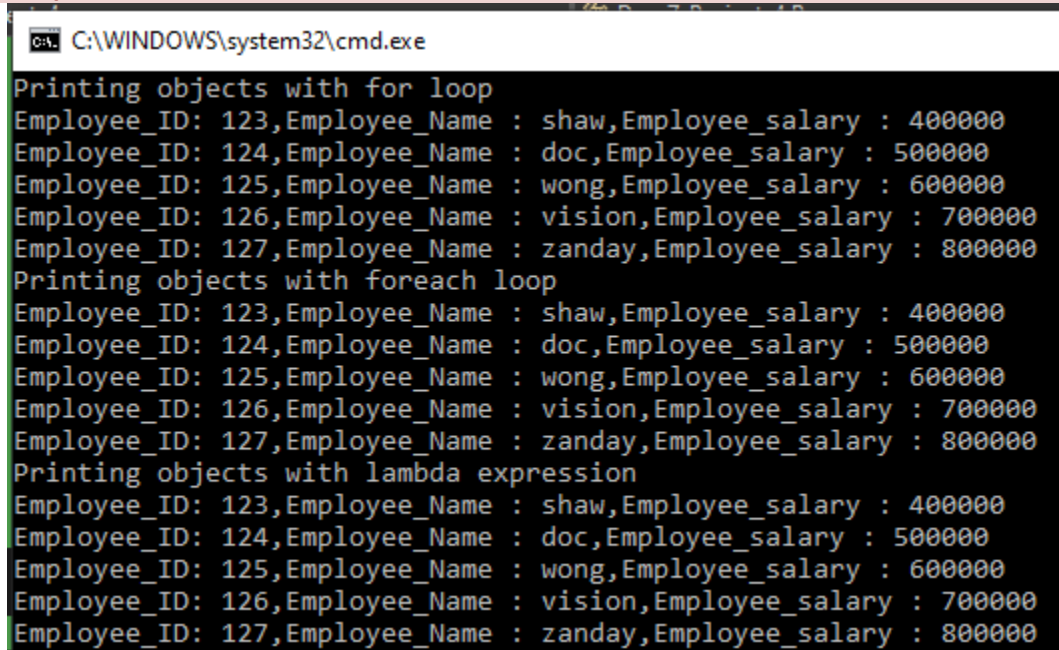
Code:

```
internal class Employee
{
    public int Employee_ID;
    public string Employee_name;
    public int Employee_salary;
}
internal class Program
{
    static void Main(string[] args)
    {
        /*
        *****
        **                                     **
        * * *Author : Nalli_Prudhvi                                     *
        * * *Purpose: To create calss with 3 var and create employees array object and *
        ** initialize the values of 5 employees. **
        *****
        **/

        //*****_Array_Declaration_*****
        Employee[] emp_b1 = new Employee[]{
            new Employee(){ Employee_ID = 123, Employee_name
            = "shaw", Employee_salary = 400000 },
            new Employee(){ Employee_ID = 124, Employee_name
            = "doc", Employee_salary = 500000 },
            new Employee(){ Employee_ID = 125, Employee_name
            = "wong", Employee_salary = 600000 },
            new Employee(){ Employee_ID = 126, Employee_name
            = "vision", Employee_salary = 700000 },
            new Employee(){ Employee_ID = 127, Employee_name
            = "zanday", Employee_salary = 800000 },
        };
        //*****for loop*****
        Console.WriteLine("Printing objects with for loop");
        for(int i =0; i<emp_b1.Length;i++)
        {
            Console.WriteLine($"Employee_ID:
            {emp_b1[i].Employee_ID},Employee_Name : {emp_b1[i].Employee_name},Employee_salary :
            {emp_b1[i].Employee_salary}");
        }
        Console.WriteLine("Printing objects with foreach loop");
        //*****for_each loop?*****
        foreach (var e in emp_b1)
        {
            Console.WriteLine($"Employee_ID: {e.Employee_ID},Employee_Name :
            {e.Employee_name},Employee_salary : {e.Employee_salary}");
        }
        //*****lambda expressions*****
        Console.WriteLine("Printing objects with lambda expression");
        emp_b1.ToList().ForEach(f => Console.WriteLine($"Employee_ID:
            {f.Employee_ID},Employee_Name : {f.Employee_name},Employee_salary :
```

```
{f.Employee_salary}"));
    Console.ReadLine();
}
}
```

Output:



```
C:\WINDOWS\system32\cmd.exe
Printing objects with for loop
Employee_ID: 123,Employee_Name : shaw,Employee_salary : 400000
Employee_ID: 124,Employee_Name : doc,Employee_salary : 500000
Employee_ID: 125,Employee_Name : wong,Employee_salary : 600000
Employee_ID: 126,Employee_Name : vision,Employee_salary : 700000
Employee_ID: 127,Employee_Name : zanday,Employee_salary : 800000
Printing objects with foreach loop
Employee_ID: 123,Employee_Name : shaw,Employee_salary : 400000
Employee_ID: 124,Employee_Name : doc,Employee_salary : 500000
Employee_ID: 125,Employee_Name : wong,Employee_salary : 600000
Employee_ID: 126,Employee_Name : vision,Employee_salary : 700000
Employee_ID: 127,Employee_Name : zanday,Employee_salary : 800000
Printing objects with lambda expression
Employee_ID: 123,Employee_Name : shaw,Employee_salary : 400000
Employee_ID: 124,Employee_Name : doc,Employee_salary : 500000
Employee_ID: 125,Employee_Name : wong,Employee_salary : 600000
Employee_ID: 126,Employee_Name : vision,Employee_salary : 700000
Employee_ID: 127,Employee_Name : zanday,Employee_salary : 800000
```

Q6. To create calss with 3 var and create employees array object and intialize the values of 5 employees.

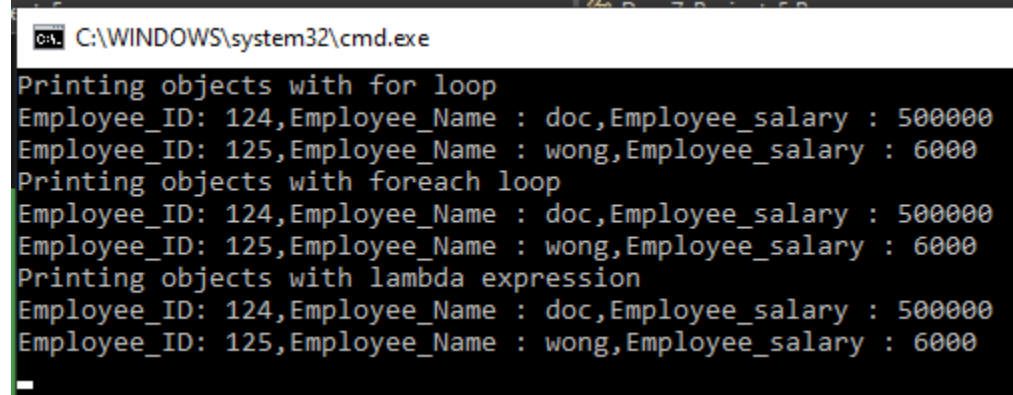
Code:

```
amespace Day_7_Project_5
{
    internal class Employee
    {
        public int Employee_ID;
        public string Employee_name;
        public int Employee_salary;
    }
    internal class Program
    {
        static void Main(string[] args)
        {
            /*
            *****
            **                                     **
            * * *Author : Nalli_Prudhvi             *
            *                                     *
            * * *Purpose: To create calss with 3 var and create employees array object *
            ** and intialize the values of 5 employees. **
            *****
            **/

            Employee[] emp_b1 = new Employee[]{
                new Employee(){ Employee_ID = 123, Employee_name
= "shaw", Employee_salary = 4000 },
                new Employee(){ Employee_ID = 124, Employee_name
= "doc", Employee_salary = 500000 },
                new Employee(){ Employee_ID = 125, Employee_name
= "wong", Employee_salary = 6000 },
                new Employee(){ Employee_ID = 126, Employee_name
= "vision", Employee_salary = 3000 },
                new Employee(){ Employee_ID = 127, Employee_name
= "zanday", Employee_salary = 2000 },
            };
            //*****for loop*****
            Console.WriteLine("Printing objects with for loop");
            for (int i = 0; i < emp_b1.Length; i++)
            {
                if (emp_b1[i].Employee_salary >= 5000)
                    Console.WriteLine($"Employee_ID:
{emp_b1[i].Employee_ID},Employee_Name : {emp_b1[i].Employee_name},Employee_salary :
{emp_b1[i].Employee_salary}");
            }
            Console.WriteLine("Printing objects with foreach loop");
            //*****for_each loop?*****
            foreach (var e in emp_b1)
            {
                if(e.Employee_salary>=5000)
                    Console.WriteLine($"Employee_ID: {e.Employee_ID},Employee_Name :
{e.Employee_name},Employee_salary : {e.Employee_salary}");
            }
        }
    }
}
```

```
//*****lambda expressions*****  
Console.WriteLine("Printing objects with lambda expression");  
emp_b1.ToList().Where(f => f.Employee_salary >= 5000).ToList().ForEach(f  
=> Console.WriteLine($"Employee_ID: {f.Employee_ID},Employee_Name :  
{f.Employee_name},Employee_salary : {f.Employee_salary}"));  
Console.ReadLine();  
}  
}
```

Output:



```
C:\WINDOWS\system32\cmd.exe  
Printing objects with for loop  
Employee_ID: 124,Employee_Name : doc,Employee_salary : 500000  
Employee_ID: 125,Employee_Name : wong,Employee_salary : 6000  
Printing objects with foreach loop  
Employee_ID: 124,Employee_Name : doc,Employee_salary : 500000  
Employee_ID: 125,Employee_Name : wong,Employee_salary : 6000  
Printing objects with lambda expression  
Employee_ID: 124,Employee_Name : doc,Employee_salary : 500000  
Employee_ID: 125,Employee_Name : wong,Employee_salary : 6000
```

Q7. To create calss of cutomer and product similar to above projects

Code:

```
internal class Product
{
    public int Product_ID;
    public string Product_name;
    public int Product_prize;
}

internal class Program
{
    static void Main(string[] args)
    {
        /*
        *****
        **
        * * *Author : Nalli_Prudhvi
        *
        * * *Purpose: To create calss of cutomer and product similar to above projects
        *
        **
        *****
        **/

        Console.WriteLine("Printing objects with Product class");
        Product[] cust_b1 = new Product[] {
            new Product() { Product_ID = 123, Product_name =
"shoes", Product_prize = 4000 },
            new Product() { Product_ID = 124, Product_name =
"watch", Product_prize = 500000 },
            new Product() { Product_ID = 125, Product_name =
"trouser", Product_prize = 6000 },
            new Product() { Product_ID = 126, Product_name =
"shirt", Product_prize = 3000 },
            new Product() { Product_ID = 127, Product_name =
"accessories", Product_prize = 2000 },
        };
        //*****for loop*****
        Console.WriteLine("Printing objects with for loop");
        for (int i = 0; i < cust_b1.Length; i++)
        {
            Console.WriteLine($"Product_ID: {cust_b1[i].Product_ID},Product_name
: {cust_b1[i].Product_name},Product_prize : {cust_b1[i].Product_prize}");
        }
        //*****for_each loop?*****
        Console.WriteLine("Printing objects with foreach loop");
        foreach (var e in cust_b1)
        {
            Console.WriteLine($"Product_ID: {e.Product_ID},Product_name :
{e.Product_name},Product_prize : {e.Product_prize}");
        }
        //*****lambda expressions*****
        Console.WriteLine("Printing objects with lambda expression");
        cust_b1.ToList().ForEach(f => Console.WriteLine($"Product_ID:
{f.Product_ID},Product_name : {f.Product_name},Product_prize : {f.Product_prize}"));
        Console.ReadLine();
    }
}
```

```

        Console.WriteLine("Printing objects with Customer class");
        Customer[] cust_b2 = new Customer[]{
            new Customer(){ Customer_ID = 123, Customer_name
= "shoes", Customer_contact = 4000 },
            new Customer(){ Customer_ID = 124, Customer_name
= "watch",Customer_contact = 500000 },
            new Customer(){ Customer_ID = 125, Customer_name
= "trouser", Customer_contact = 6000 },
            new Customer(){ Customer_ID = 126, Customer_name
= "shirt",Customer_contact = 3000 },
            new Customer(){ Customer_ID = 127, Customer_name
= "accessories", Customer_contact = 2000 },
        };
        //*****for loop*****
        Console.WriteLine("Printing objects with for loop");
        for (int i = 0; i < cust_b1.Length; i++)
        {
            Console.WriteLine($"Customer_ID:
{cust_b2[i].Customer_ID},Customer_name : {cust_b2[i].Customer_name},Customer_contact
: {cust_b2[i].Customer_contact}");
        }
        //*****for_each loop?*****
        foreach (var e in cust_b2)
        {
            Console.WriteLine($"Product_ID: {e.Customer_ID},Product_name :
{e.Customer_name},Product_prize : {e.Customer_contact}");
        }
        //*****lambda expressions*****
        Console.WriteLine("Printing objects with lambda expression");
        cust_b2.ToList().ForEach(f=>Console.WriteLine($"Product_ID:
{f.Customer_ID},Product_name : {f.Customer_name},Product_prize :
{f.Customer_contact}"));
        Console.ReadLine();
    }
}

```

Output:

C:\WINDOWS\system32\cmd.exe

```
Printing objects with Product class
Printing objects with for loop
Product_ID: 123,Product_name : shoes,Product_prize : 4000
Product_ID: 124,Product_name : watch,Product_prize : 500000
Product_ID: 125,Product_name : trouser,Product_prize : 6000
Product_ID: 126,Product_name : shirt,Product_prize : 3000
Product_ID: 127,Product_name : accessories,Product_prize : 2000
Printing objects with foreach loop
Product_ID: 123,Product_name : shoes,Product_prize : 4000
Product_ID: 124,Product_name : watch,Product_prize : 500000
Product_ID: 125,Product_name : trouser,Product_prize : 6000
Product_ID: 126,Product_name : shirt,Product_prize : 3000
Product_ID: 127,Product_name : acessories,Product_prize : 2000
Printing objects with lambda expression
Product_ID: 123,Product_name : shoes,Product_prize : 4000
Product_ID: 124,Product_name : watch,Product_prize : 500000
Product_ID: 125,Product_name : trouser,Product_prize : 6000
Product_ID: 126,Product_name : shirt,Product_prize : 3000
Product_ID: 127,Product_name : acessories,Product_prize : 2000

Printing objects with Customer class
Printing objects with for loop
Customer_ID: 123,Customer_name : shoes,Customer_contact : 4000
Customer_ID: 124,Customer_name : watch,Customer_contact : 500000
Customer_ID: 125,Customer_name : trouser,Customer_contact : 6000
Customer_ID: 126,Customer_name : shirt,Customer_contact : 3000
Customer_ID: 127,Customer_name : acessories,Customer_contact : 2000
Product_ID: 123,Product_name : shoes,Product_prize : 4000
Product_ID: 124,Product_name : watch,Product_prize : 500000
Product_ID: 125,Product_name : trouser,Product_prize : 6000
Product_ID: 126,Product_name : shirt,Product_prize : 3000
Product_ID: 127,Product_name : acessories,Product_prize : 2000
Printing objects with lambda expression
Product_ID: 123,Product_name : shoes,Product_prize : 4000
Product_ID: 124,Product_name : watch,Product_prize : 500000
Product_ID: 125,Product_name : trouser,Product_prize : 6000
Product_ID: 126,Product_name : shirt,Product_prize : 3000
Product_ID: 127,Product_name : acessories,Product_prize : 2000
S_
```

Q8.Pictorial class representation

A.

