Day 7 Morning Assignment
By
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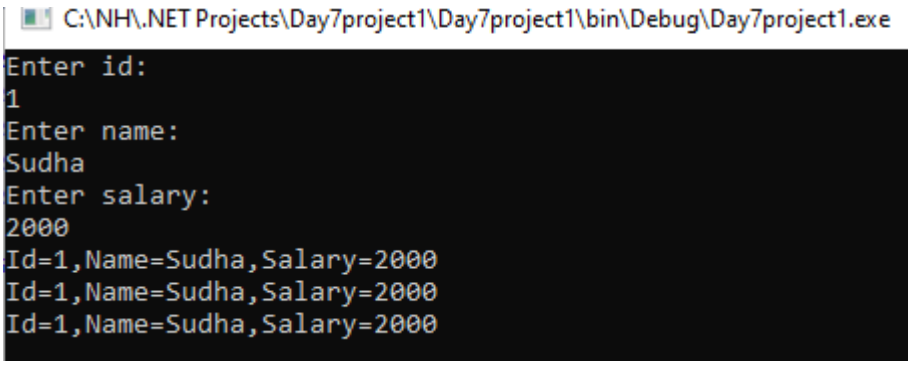
Q1.Create Employee class with three variables and two methods (ReadEmployee and PrintEmployee) ,create an object and call methods.

Code:

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace Day7project1
{
   class Employee
   {
      //Public variables

      public int id;
      public string name;
      public int salary;

      //ReadEmploye method to read data from user
      public void ReadEmploye()
      {
         Console.WriteLine("Enter id:");
         id=Convert.ToInt32(Console.ReadLine());
         Console.WriteLine("Enter name:");
         name= Console.ReadLine();
         Console.WriteLine("Enter salary:");
         salary= Convert.ToInt32(Console.ReadLine());

      }

      //PrintEmploye to print the Employe details
      public void PrintEmploye()
      {
         Console.WriteLine($"Id={id},Name={name},Salary={salary}");
         Console.WriteLine("Id={0},Name={1},Salary={2}",id,name,salary);
         Console.WriteLine("Id=" + id + ",Name=" + name+",Salary=" + salary);
      }
```

```
    }
    internal class Program
    {
        static void Main(string[] args)
        {

/**************************************************************************
*****************************************************************
         * Author:Sudha Sugasani
         * Purpose:Creating Employee class with three public variables and          two
methods(ReadEmploye,PrintEmploye),creating an object and calling methods

**************************************************************************
*****************************************************************/

           Employee emp1 = new Employee();
          emp1.ReadEmploye();
          emp1.PrintEmploye();
          Console.ReadLine();
        }
    }
}
```

Output:

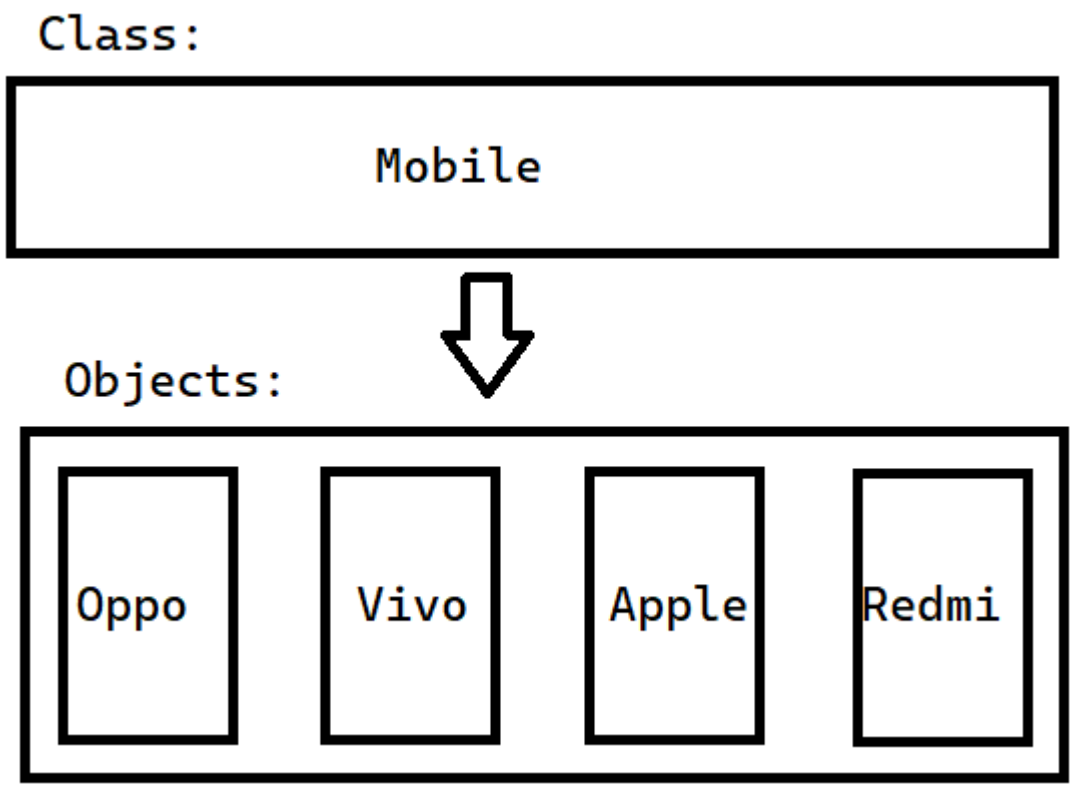


Q2. Write the 3 def of class and 4 points about object discussed in the class.

Class: 1. A class is a group of variables and methods.
2.A class is like a design or blueprint to create objects.
3.A class consists of state(variables) and behaviour(methods).

Object: 1.An object is an instance of class.
2.We can create any number of objects.
3.Objects occupy memory.
4.Objects are reference types.

Q3. Pictorially represent class and multiple objects



Q4. Create below classes:

1. Customer
2. Product
3. Seller
4. Department

Code:

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace Day7project2
{
   class Customer
   {
      private int customerid;
```

```
        private string customername;
        private string customeraddress;
        private int customernumber;

        //Creating ReadCustomer method to read values from user

        public void ReadCustomer()
        {
            Console.WriteLine("Enter Customerid");
            customerid = Convert.ToInt32(Console.ReadLine());
            Console.WriteLine("Enter Customername");
            customername = Console.ReadLine();
            Console.WriteLine("Enter CustomerAddress");
            customeraddress = Console.ReadLine();
            Console.WriteLine("Enter Customernumber");
            customernumber = Convert.ToInt32(Console.ReadLine());

        }

        //Creating PrintCustomer method to print customerdetails
        public void PrintCustomer()
        {

Console.WriteLine($"ID={customerid},Name={customername},Address={customeraddress},
Number={customernumber}");
        }
    }
    internal class Program
    {

        static void Main(string[] args)
        {
            Customer cust = new Customer();
            Product p1= new Product();
            cust.ReadCustomer();
            cust.PrintCustomer();
            Console.ReadLine();
            p1.ReadProduct();
            p1.PrintProduct();
            Console.ReadLine();
            Seller s1= new Seller();
            s1.ReadSeller();
            s1.PrintSeller();
            Console.ReadLine();
            Department d1=new Department();
            d1.ReadDepartment();
            d1.PrintDepartment();
```

```
            Console.ReadLine();

        }
    }
}
```

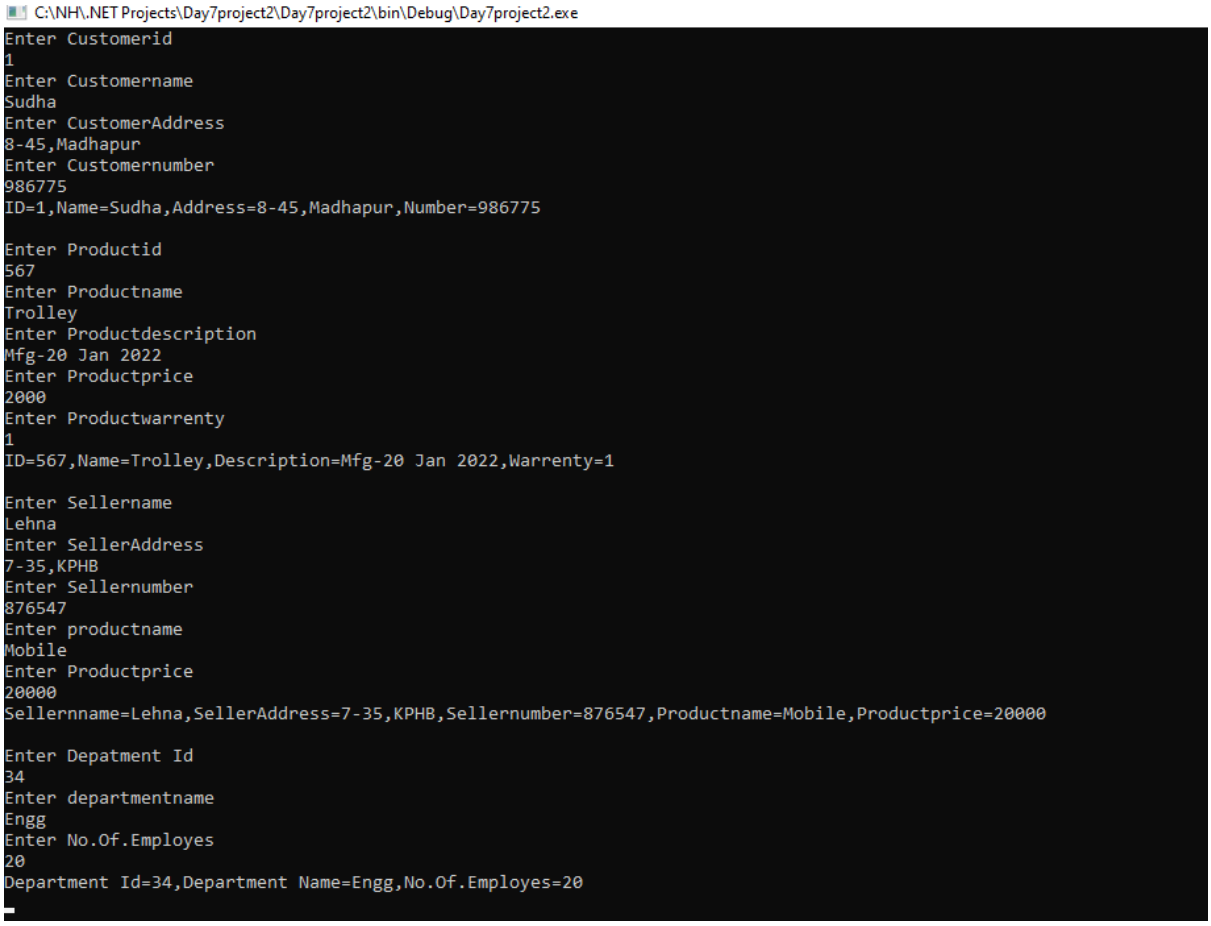
```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace Day7project2
{
    internal class Product
    {

        private int productid;
        private string productname;
        private string productdescription;
        private int productprice;
        private int productwarrenty;

        //Creating ReadProduct method  values from user

        public void ReadProduct()
        {
            Console.WriteLine("Enter Productid");
            productid = Convert.ToInt32(Console.ReadLine());
            Console.WriteLine("Enter Productname");
            productname = Console.ReadLine();
            Console.WriteLine("Enter Productdescription");
            productdescription = Console.ReadLine();
            Console.WriteLine("Enter Productprice");
            productprice = Convert.ToInt32(Console.ReadLine());
             Console.WriteLine("Enter Productwarrenty");
            productwarrenty = Convert.ToInt32(Console.ReadLine());

        }

        //Creating PrintProduct to print productdetails
        public void PrintProduct()
        {
```

```
Console.WriteLine($"ID={productid},Name={productname},Description={productdescription
},Warrenty={productwarrenty}");
        }


    }
}


using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace Day7project2
{
    internal class Seller
    {
        private string sellername;
        private string address;
        private int number;
        private string productname;
        private int price;



        //Creating ReadSeller method to read values from user

        public void ReadSeller()
        {
            Console.WriteLine("Enter Sellername");
            sellername= Console.ReadLine();
            Console.WriteLine("Enter SellerAddress");
            address = Console.ReadLine();
            Console.WriteLine("Enter Sellernumber");
            number = Convert.ToInt32(Console.ReadLine());
            Console.WriteLine("Enter productname");
            productname= Console.ReadLine();
            Console.WriteLine("Enter Productprice");
            price = Convert.ToInt32(Console.ReadLine());

        }

        //Creating PrintSeller method to print Sellerdetails
        public void PrintSeller()
```

```
        {

Console.WriteLine($"Sellernname={sellername},SellerAddress={address},Sellernumber={nu
mber},Productname={productname},Productprice={price}");
        }
      }
   }



using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace Day7project2
{
   internal class Department
   {
      private int departmentid;
      private string departmentname;
      private int noofemployes;




      //Creating ReadDepartment method to read values from user

      public void ReadDepartment()
      {
         Console.WriteLine("Enter Depatment Id");
         departmentid=Convert.ToInt32( Console.ReadLine());
         Console.WriteLine("Enter departmentname");
         departmentname = Console.ReadLine();
         Console.WriteLine("Enter No.Of.Employes");
         noofemployes = Convert.ToInt32(Console.ReadLine());


      }

      //Creating PrintDepartment method to print Sellerdetails
      public void PrintDepartment()
      {
         Console.WriteLine($"Department Id={departmentid},Department
Name={departmentname},No.Of.Employes={noofemployes}");
      }
```

```
    }
}
```

Output:



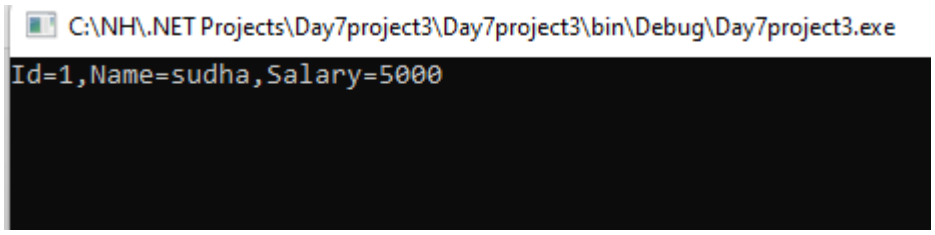
Q5. Create Employee class with 3 public variables.
Create Employee object and initialize with values while creating object and print values

Code:

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace Day7project3
```

```
{
   class Employee
   {
      public int id;
      public string name;
      public int salary;

   }
   internal class Program
   {

      static void Main(string[] args)
      {

/*********************************************************************************
*******************************
         * Author:Sudha Sugasani
         * Purpose:Creating Employee Class with 3public variables

*********************************************************************************
*******************************/
         Employee emp = new Employee() { id = 1, name = "sudha", salary = 5000 };
         Console.WriteLine($"Id={emp.id},Name={emp.name},Salary={emp.salary}");
         Console.ReadLine();
      }
   }
}
```

Output:



Q6. Create Employee class as shown below:

```
class Employee
{
   public int id;
   public string name;
   public int salary;
```

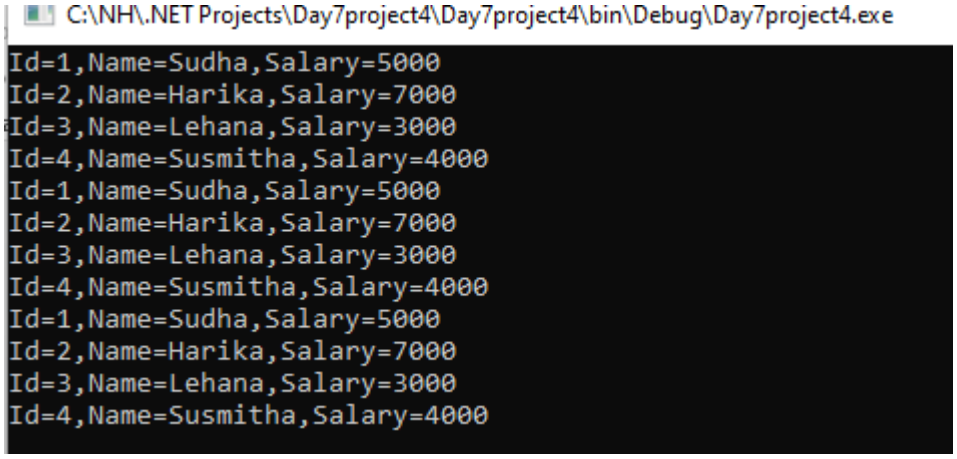
}
now create employees array object and initialize with 5 employees
write code using : a. for loop, b. foreach loop, c. lambda expression.

Code:

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace Day7project4
{
   class Employee
   {
      public int Id;
      public string Name;
      public int Salary;
   }
   internal class Program
   {
      static void Main(string[] args)
      {

/**************************************************************************
**********************
         * Author:Sudha Sugasani
         * Purpose:Employee class using Array

**************************************************************************
**********************/

         Employee[] emp = new Employee[]
         {
            new Employee() { Id = 1, Name = "Sudha", Salary = 5000 },

            new Employee() { Id = 2, Name = "Harika", Salary = 7000 },

            new Employee() { Id = 3, Name = "Lehana", Salary = 3000 },

            new Employee() { Id = 4, Name = "Susmitha", Salary = 4000 }
         };
         //Print the values using for loop

         for(int i=0; i<emp.Length; i++)
```

```
        {
            Console.WriteLine($"Id={emp[i].Id},Name={emp[i].Name},Salary={emp[i].Salary}");
        }


        //Print the values using foreah loop

        foreach(var e in emp)
        {
            Console.WriteLine($"Id={e.Id},Name={e.Name},Salary={e.Salary}");
        }

        //Print values using Lambda Expression

        emp.ToList().ForEach(e =>
Console.WriteLine($"Id={e.Id},Name={e.Name},Salary={e.Salary}"));

        Console.ReadLine();

       }

    }
  }
```

Output:



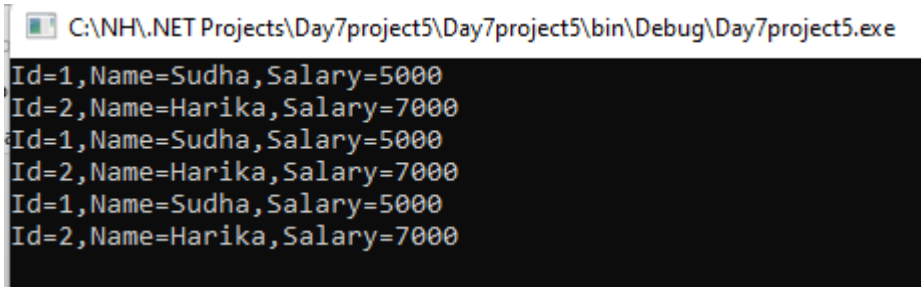
Q7. For the above project,
write code to print employees who is getting salary >=5000 using
a.for loop ,b. foreach loop, c.lambda expression

Code:

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace Day7project5
{
   internal class Program
   {
      class Employee
      {
         public int Id;
         public string Name;
         public int Salary;
      }

         static void Main(string[] args)
         {

/**************************************************************************
**********************
            * Author:Sudha Sugasani
            * Purpose:Employee class using Array whose salary >=5000

**************************************************************************
**********************/

            Employee[] emp = new Employee[]
            {
            new Employee() { Id = 1, Name = "Sudha", Salary = 5000 },

            new Employee() { Id = 2, Name = "Harika", Salary = 7000 },

            new Employee() { Id = 3, Name = "Lehana", Salary = 3000 },

            new Employee() { Id = 4, Name = "Susmitha", Salary = 4000 }
            };
            //Print the values using for loop

            for (int i = 0; i < emp.Length; i++)

            {
               if(emp[i].Salary>=5000)

Console.WriteLine($"Id={emp[i].Id},Name={emp[i].Name},Salary={emp[i].Salary}");
            }
```

```
            //Print the values using foreah loop

            foreach (var e in emp)
            {
               if(e.Salary>=5000)
               Console.WriteLine($"Id={e.Id},Name={e.Name},Salary={e.Salary}");
            }

            //Print values using Lambda Expression

            emp.ToList().Where(e =>e.Salary>=5000).ToList().ForEach(e =>
Console.WriteLine($"Id={e.Id},Name={e.Name},Salary={e.Salary}"));

            Console.ReadLine();

        }

    }
  }
```

Output:



Q8. Create Customer class as shown below

```
Class Customer
{
    Public int id;
    Public string name;
    Public string location;
 }
```

Now create Customer Array object and initialise with 5 customers

Write a code to print whose location is Hyderabad

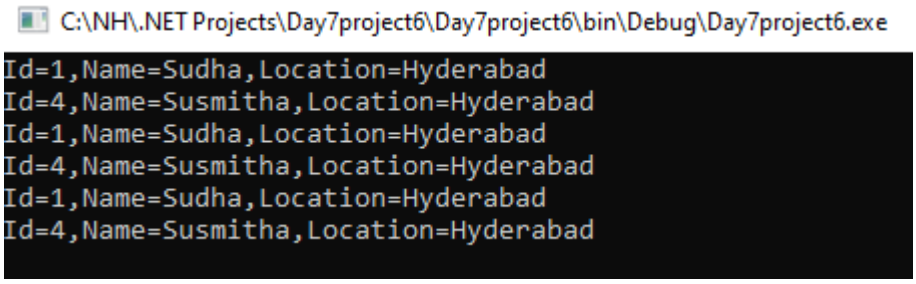
Write code using a.for loop, b.foreach loop, c.lambda expression

Code:

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace Day7project6
{
   internal class Program
   {

        class Customer
        {
           public int Id;
           public string Name;
           public string location;
        }

        static void Main(string[] args)
        {

/**************************************************************************
**********************
            * Author:Sudha Sugasani
            * Purpose:Customer class using Array whose Location is Hyderabad

**************************************************************************
**********************/

           Customer[] cus = new Customer[]
           {
           new Customer() { Id = 1, Name = "Sudha", location = "Hyderabad" },

           new Customer() { Id = 2, Name = "Harika", location = "Banglore"},

           new Customer() { Id = 3, Name = "Lehana", location = "Vijayawada" },

           new Customer() { Id = 4, Name = "Susmitha", location = "Hyderabad" }
           };
```

```
        //Print the values using for loop

            for (int i = 0; i < cus.Length; i++)

            {
               if (cus[i].location is "Hyderabad")

Console.WriteLine($"Id={cus[i].Id},Name={cus[i].Name},Location={cus[i].location}");
            }


            //Print the values using foreah loop

            foreach (var e in cus)
            {
               if (e.location is "Hyderabad")
                  Console.WriteLine($"Id={e.Id},Name={e.Name},Location={e.location}");
            }

            //Print values using Lambda Expression

            cus.ToList().Where(e => e.location is "Hyderabad").ToList().ForEach(e =>
Console.WriteLine($"Id={e.Id},Name={e.Name},Location={e.location}"));

            Console.ReadLine();

        }

    }
  }
```

Output:



Q9. Create Product class as shown below

Class Product

{

Public int id;

Public string name;

Public int price;

}

Now create Customer Array object and initialise with 5 Product

Write a code to print whose price <=30000

Write code using a.for loop, b.foreach loop, c.lambda expression

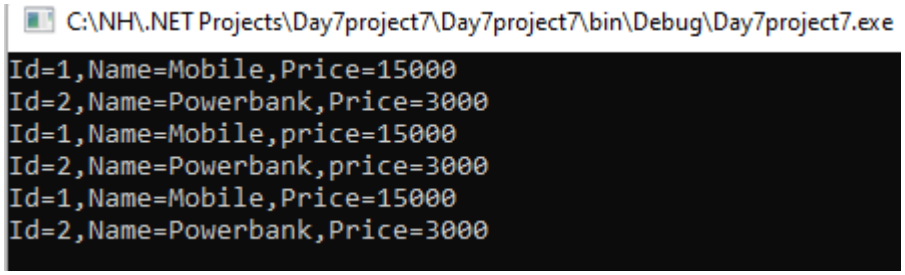
Code :

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace Day7project7
{
   internal class Program
    {

        class Product
        {
           public int Id;
           public string Name;
           public int price;
        }

        static void Main(string[] args)
        {
```

```
/*************************************************************************
**********************
            * Author:Sudha Sugasani
            * Purpose:Product class using Array whose Price <=30000

*************************************************************************
**********************/

           Product[] p1 = new Product[]
            {
            new Product() { Id = 1, Name = "Mobile", price=15000 },

            new Product() { Id = 2, Name = "Powerbank", price=3000},

            new Product() { Id = 3, Name = "Washing Machine", price=50000 },

            new Product() { Id = 4, Name = "TV", price=75000 }
            };
            //Print the values using for loop

            for (int i = 0; i < p1.Length; i++)

            {
               if (p1[i].price<=30000)
                  Console.WriteLine($"Id={p1[i].Id},Name={p1[i].Name},Price={p1[i].price}");
            }


            //Print the values using foreah loop

            foreach (var e in p1)
            {
               if (e.price <=30000)
                  Console.WriteLine($"Id={e.Id},Name={e.Name},price={e.price}");
            }

            //Print values using Lambda Expression

            p1.ToList().Where(e => e.price <=30000).ToList().ForEach(e =>
Console.WriteLine($"Id={e.Id},Name={e.Name},Price={e.price}"));

            Console.ReadLine();

         }
```

```
    }
}
```

Output:


C:\NH\.NET Projects\Day7project7\Day7project7\bin\Debug\Day7project7.exe
Id=1,Name=Mobile,Price=15000
Id=2,Name=Powerbank,Price=3000
Id=1,Name=Mobile,price=15000
Id=2,Name=Powerbank,price=3000
Id=1,Name=Mobile,Price=15000
Id=2,Name=Powerbank,Price=3000