Day7 Morning Assignment
1st February 2022

By
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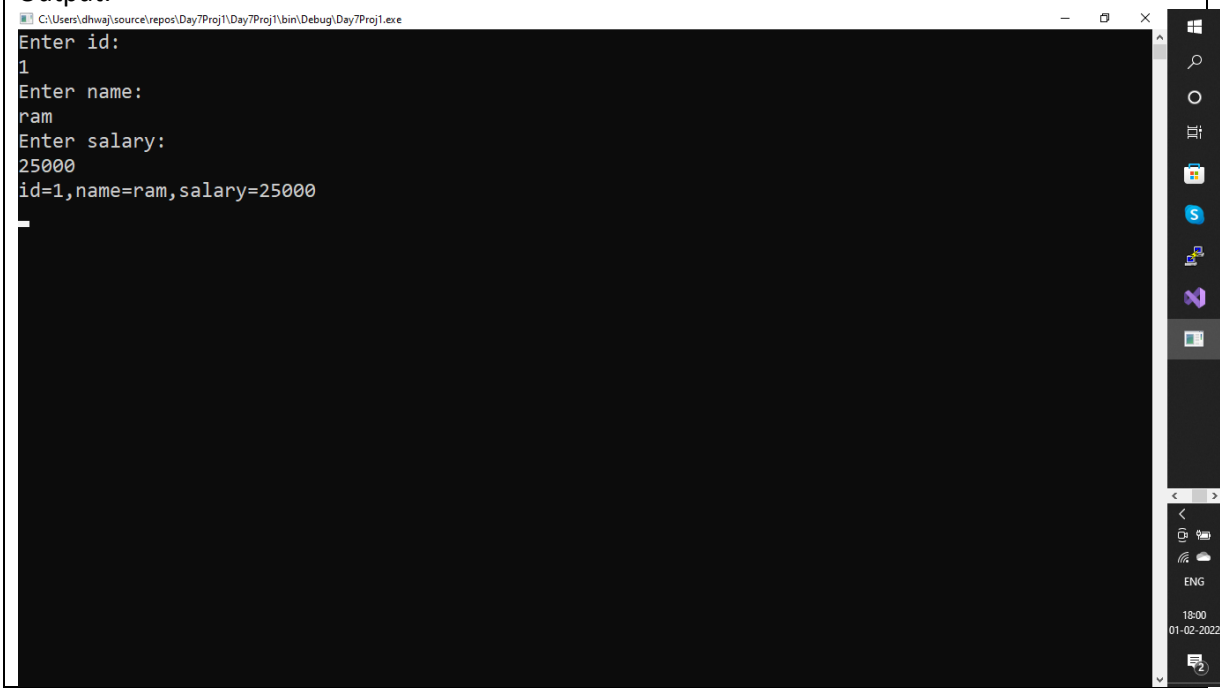
1.Create Employee class with 3 variables and 2 methods and create object and call methods.

Code:

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

namespace Day7Project1
{
    //Author: Rc
    /*Purpose:Create Employee class with 3 variables and 2 methods
    and create object and call methods */


    class Employee
    {
        // variable declaration

        private int id;
        private string name;
        private int salary;

        //methods declaration

        public void ReadEmployee()  //To read Employee data from user
        {
            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());
        }
        public void PrintEmployee() //To print Employee data
        {
            Console.WriteLine($"id={id},name={name},salary={salary}");
        }
```

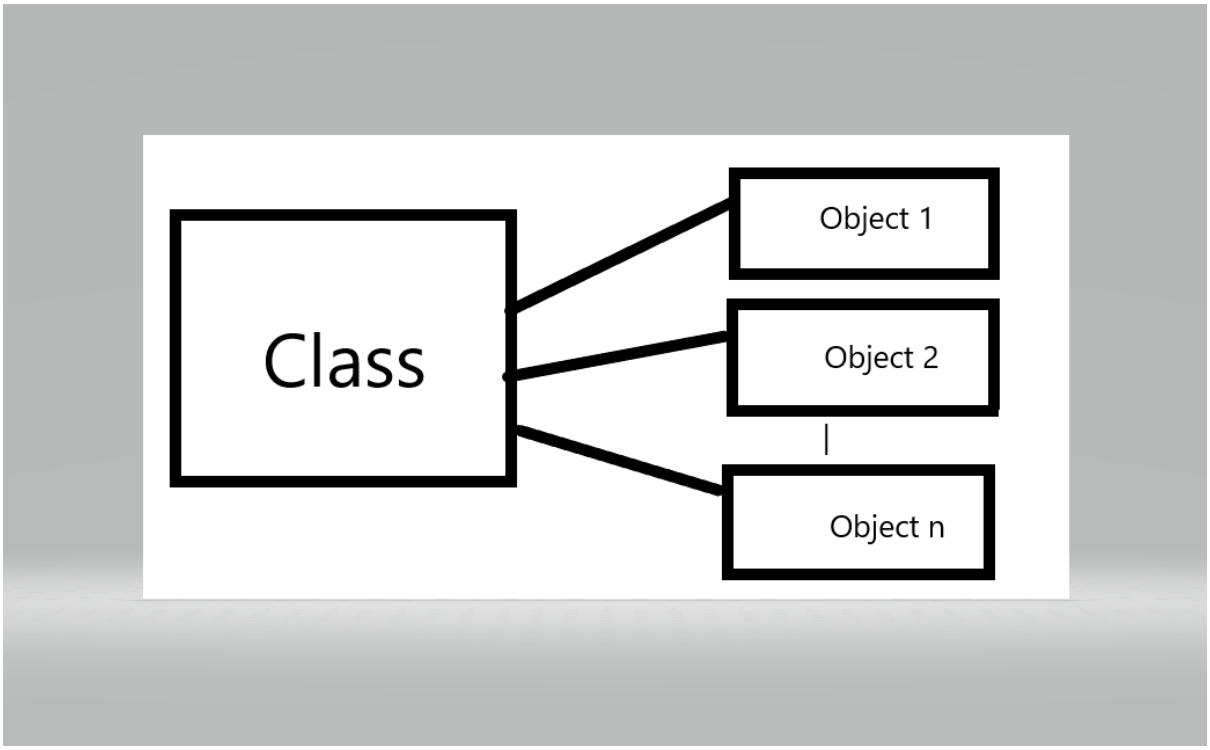
```
    }

    internal class Program
    {
        static void Main(string[] args)
        {
            // object creation

            Employee e = new Employee();  //e is object of Employee class

            //calling methods using object

            e.ReadEmployee();
            e.PrintEmployee();

            Console.ReadLine();

        }
    }


}
```

Output:



2.Write 3 definitions of class and 4 points about object discussed in the class.
Class: 1.A class is group of variables and methods. 2.A class is like a design to create objects. 3.A class consists of state and behaviour.
Object: 1.An object is an instance of a class. 2.We can create any number of objects. 3.Objects are reference type. 4.Objects occupy memory.

3. Pictorially represent class with multiple objects.



4.Create classes for:
-Customer
-Product
-Seller
-Department

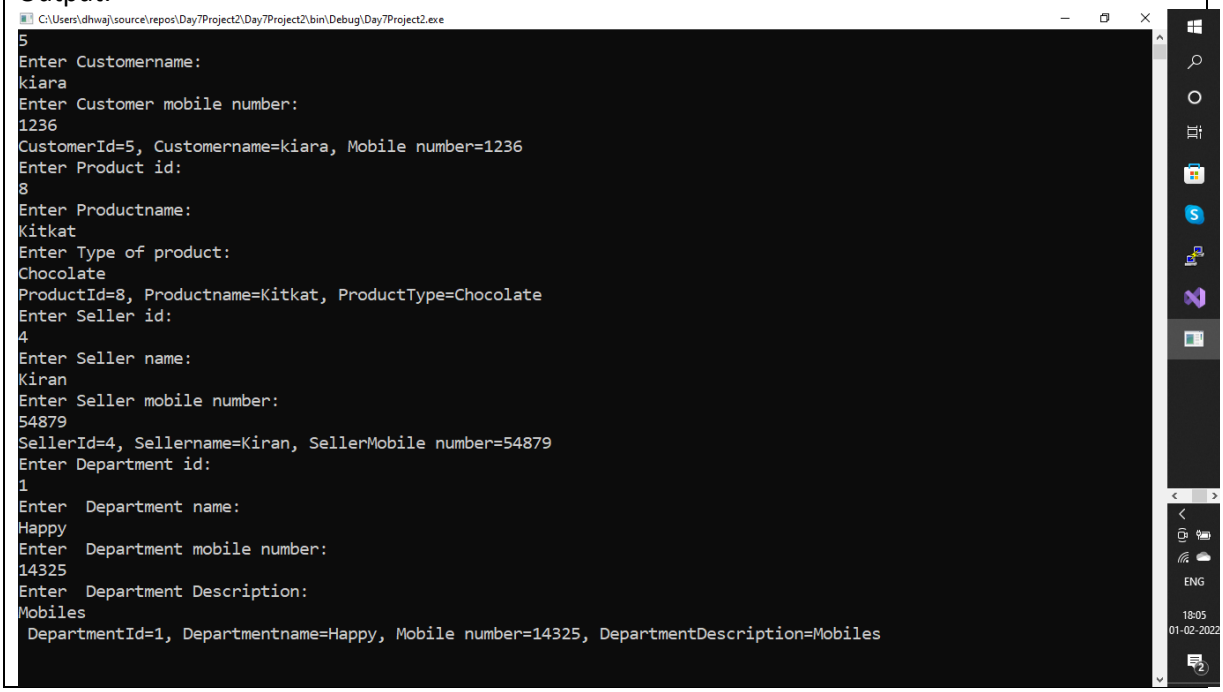
Code:

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

namespace Day7Project2
{
    //Author:Rc
    /*Purpose:create Classes:
     * customer
     * product
     * seller
     * department
     */
```

```
    class Customer   //Class Declaration
    {
        //variable Declaration
        private int cid;
        private string cname;
        private int cnumber;

        //Methods Declaration
        public void ReadCustomer()  //To read input from user
        {
            Console.WriteLine("Enter Customer id:");
            cid = Convert.ToInt32(Console.ReadLine());
            Console.WriteLine("Enter Customername:");
            cname = Console.ReadLine();
            Console.WriteLine("Enter Customer mobile number:");
            cnumber = Convert.ToInt32(Console.ReadLine());
        }
        public void PrintCustomer() //To print Customer data
        {
            Console.WriteLine($"CustomerId={cid}, Customername={cname}, Mobile
number={cnumber}");
        }
    }
    class Products  //Class Declaration
    {
        //variable Declaration
        private int pid;
        private string pname;
        private string pdes;

        //Methods Declaration
        public void ReadProduct()  //To read input from user
        {
            Console.WriteLine("Enter Product id:");
            pid = Convert.ToInt32(Console.ReadLine());
            Console.WriteLine("Enter Productname:");
            pname = Console.ReadLine();
            Console.WriteLine("Enter Type of product:");
            pdes = Console.ReadLine();
        }
        public void PrintProduct() //To print Product data
        {
            Console.WriteLine($"ProductId={pid}, Productname={pname},
ProductType={pdes}");
        }
    }
    class Seller   //Class Declaration
    {
        //variable Declaration
        private int sid;
        private string sname;
        private int snumber;

        //Methods Declaration
        public void ReadCustomer()  //To read input from user
        {
            Console.WriteLine("Enter Seller id:");
            sid = Convert.ToInt32(Console.ReadLine());
            Console.WriteLine("Enter Seller name:");
            sname = Console.ReadLine();
            Console.WriteLine("Enter Seller mobile number:");
            snumber = Convert.ToInt32(Console.ReadLine());
        }
```

```
        public void PrintCustomer() //To print Seller data
        {
            Console.WriteLine($"SellerId={sid}, Sellername={sname},
SellerMobile number={snumber}");
        }
    }
    class Department  //Class Declaration
    {
        //variable Declaration
        private int did;
        private string dname;
        private int dnumber;
        private string ddes;

        //Methods Declaration
        public void ReadCustomer()  //To read input from user
        {
            Console.WriteLine("Enter Department id:");
            did = Convert.ToInt32(Console.ReadLine());
            Console.WriteLine("Enter  Department name:");
            dname = Console.ReadLine();
            Console.WriteLine("Enter  Department mobile number:");
            dnumber = Convert.ToInt32(Console.ReadLine());
            Console.WriteLine("Enter  Department Description: ");
            ddes = Console.ReadLine();
        }
        public void PrintCustomer() //To print Department data
        {
            Console.WriteLine($" DepartmentId={did}, Departmentname={dname},
Mobile number={dnumber}, DepartmentDescription={ddes}");
        }
    }
    internal class Program
    {
        static void Main(string[] args)
        {
            Customer a = new Customer();
            a.ReadCustomer();
            a.PrintCustomer();
            Products b = new Products();
            b.ReadProduct();
            b.PrintProduct();
            Seller c = new Seller();
            c.ReadCustomer();
            c.PrintCustomer();
            Department i = new Department();
            i.ReadCustomer();
            i.PrintCustomer();

            Console.ReadLine();        }
    }
}
```

Output:



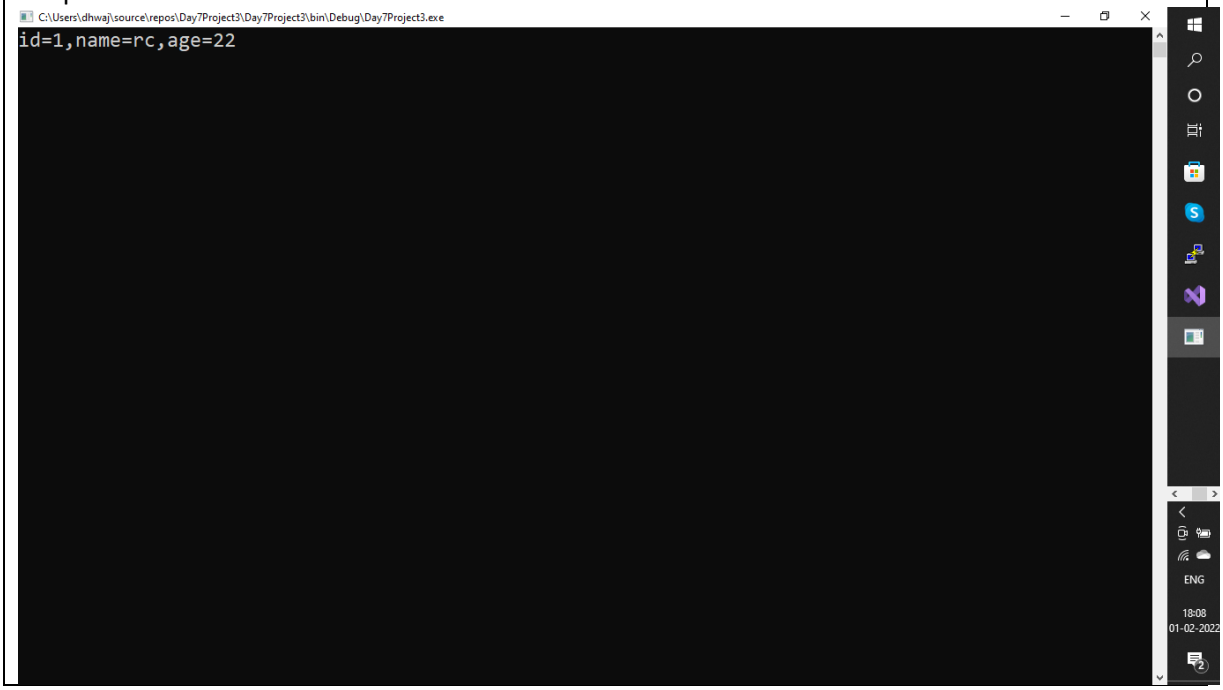
5.Create Employee class with 3 public variables. Create object and initialise with values and print them.

Code:

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

namespace Day7Project3
{
    //Author:Rc
    /*Purpose:Create Employee class with 3 public variables.
     * Create Employee object and initialise while craeting and print values.
     ***************/
    class Employee //Class Declaration
    {
        //public variable declaration
        public int id;
        public string name;
        public int age;
    }
    internal class Program
    {
        static void Main(string[] args)
        {
            //Object declaration with initialisation
            Employee emp = new Employee() { id = 1, name = "rc", age = 22 };
            Console.WriteLine($"id={emp.id},name={emp.name},age={emp.age}");

            Console.ReadLine();
        }
```

```
    }
}
```

Output:



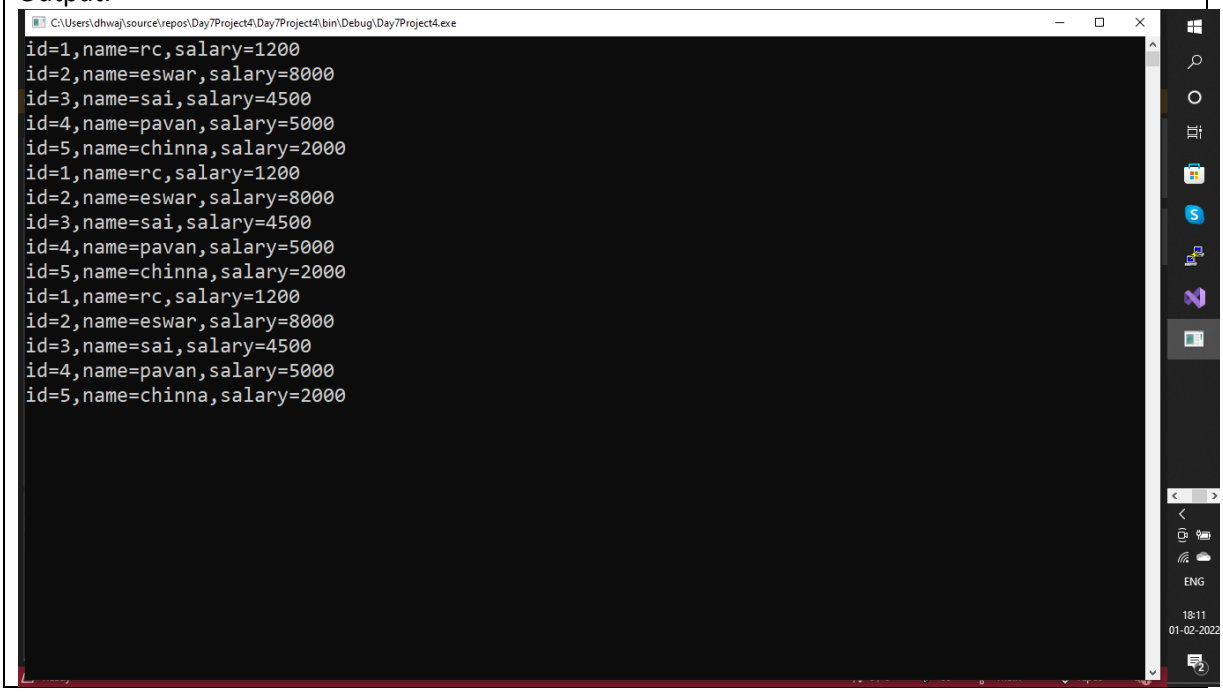
6.Create the Employee class.
Now create employee array object and initialise with 5 values and write code using
For loop,
Foreach loop,
Lambda expression.

Code:

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

namespace Day7Project4
{
    //Author: Rc
    /**Create Employee Class
     * create object and initialise with 5 values
     * and write code using for,foreach,lambda expression
     * *****/
```

```
    class Employee //class declaration
    {
        //variables declaration
        public int id;
        public string name;
        public int salary;
    }
    internal class Program
    {
        static void Main(string[] args)
        {
            //object creation
           Employee[] emp =new Employee[] //array object
           {
               //initialising object with values
            new Employee() { id = 1, name = "rc", salary = 1200},
            new Employee() { id = 2, name = "eswar", salary = 8000},
            new Employee() { id = 3, name = "sai",salary = 4500},
            new Employee() { id = 4, name = "pavan", salary = 5000},
            new Employee() { id = 5, name = "chinna", salary = 2000}
           };
            //for loop
            for(int i=0;i<emp.Length;i++)
            {

Console.WriteLine($"id={emp[i].id},name={emp[i].name},salary={emp[i].salary}");
            }
            //foreach loop
            foreach(var e in emp)
            {

Console.WriteLine($"id={e.id},name={e.name},salary={e.salary}");
            }

            //lambda expression
            emp.ToList().ForEach(e =>
Console.WriteLine($"id={e.id},name={e.name},salary={e.salary}"));

            Console.ReadLine();
        }
    }
}
```

Output:



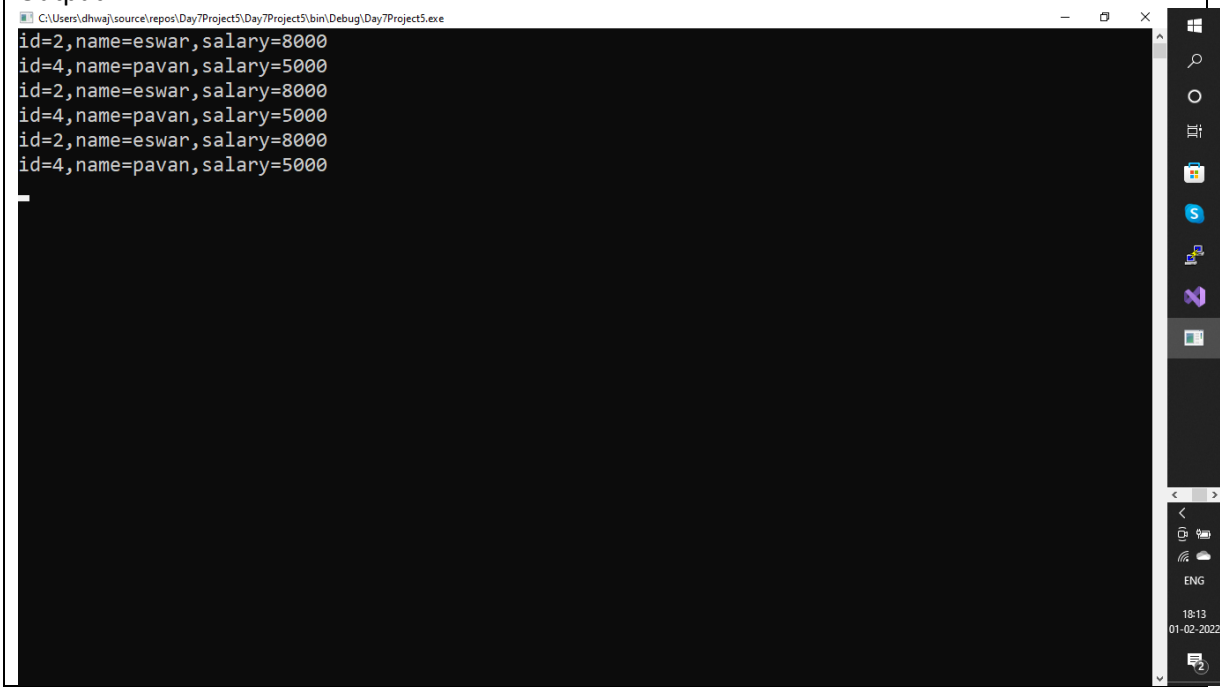
7.For above project,
Write code to print employees who is getting salary >= 5000 using
For loop,
Foreach loop,
Lambda expression.

Code:

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

namespace Day7Project5
{
    //Author: Rc
    /**Create Employee Class
     * create object and initialise with 5 values
     * and write code to  print employees who is getting salary >=5000
     * using for,foreach,lambda expression
     * *****/
    class Employee //class declaration
    {
        //variables declaration
        public int id;
        public string name;
        public int salary;
    }
    internal class Program
    {
        static void Main(string[] args)
        {
            //object creation
```

```
            Employee[] emp = new Employee[] //array object
            {
               //initialising object with values
            new Employee() { id = 1, name = "rc", salary = 1200},
            new Employee() { id = 2, name = "eswar", salary = 8000},
            new Employee() { id = 3, name = "sai",salary = 4500},
            new Employee() { id = 4, name = "pavan", salary = 5000},
            new Employee() { id = 5, name = "chinna", salary = 2000}
            };
            //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}");
            }
            //foreach loop
            foreach (var e in emp)
            {
                if(e.salary>=5000)

Console.WriteLine($"id={e.id},name={e.name},salary={e.salary}");
            }

            //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:



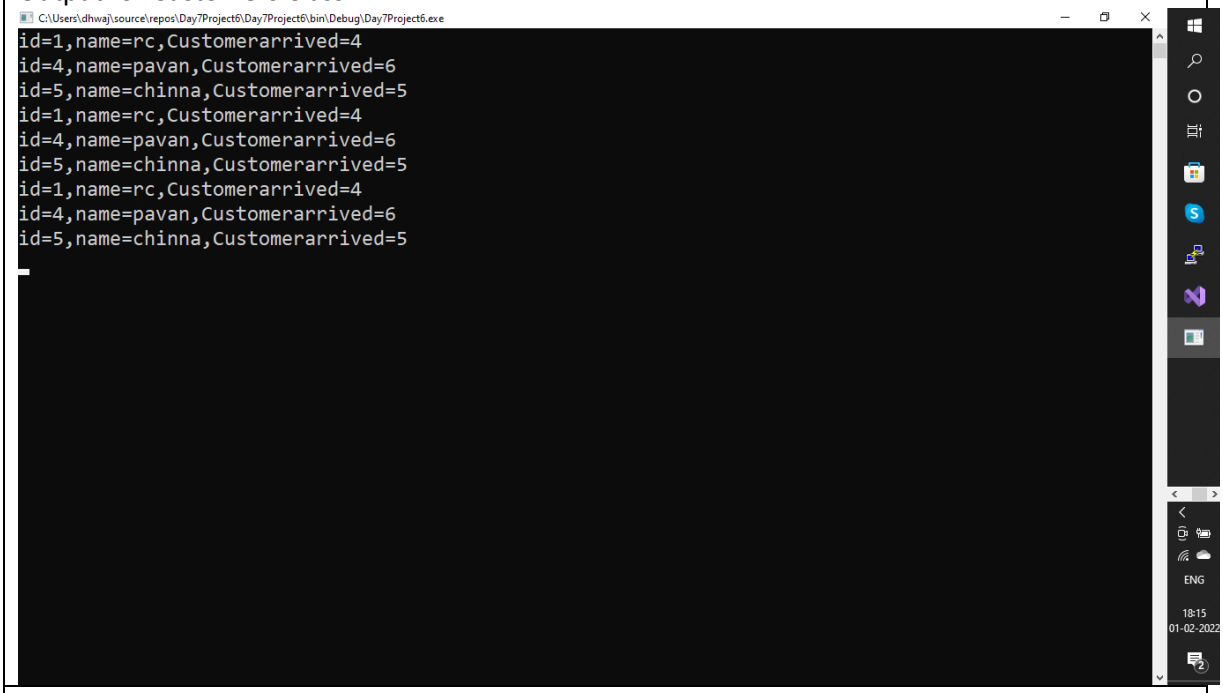
8.Similar to 6 and 7 projects, create list of customers and products arrays and practice for,foreach and lambda expression.

Code for Class Customers:

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

namespace Day7Project6
{
    //Author: Rc
    /**Create Customer Class
     * create object and initialise with 5 values
     * and write code to  print Customers whose count>=4
     * using for,foreach,lambda expression
     * ****/
    class Customer //class declaration
    {
        //variables declaration
        public int id;
        public string name;
        public int count;
    }
    internal class Program
    {
        static void Main(string[] args)
        {
            //object creation
            Customer[] c = new Customer[] //array object
            {
               //initialising object with values
            new Customer() { id = 1, name = "rc", count=4},
            new Customer() { id = 2, name = "eswar",count=1},
            new Customer() { id = 3, name = "sai", count=3},
            new Customer() { id = 4, name = "pavan",count=6},
            new Customer() { id = 5, name = "chinna",count=5}
            };
            //for loop
            for (int i = 0; i < c.Length; i++)
            {
                if (c[i].count>=4)

Console.WriteLine($"id={c[i].id},name={c[i].name},Customerarrived={c[i].count}"
);
            }
            //foreach loop
            foreach (var e in c)
            {
                if (e.count>=4)

Console.WriteLine($"id={e.id},name={e.name},Customerarrived={e.count}");
            }

            //lambda expression
            c.ToList().Where(e => e.count>=4).ToList().ForEach(e =>
Console.WriteLine($"id={e.id},name={e.name},Customerarrived={e.count}"));

            Console.ReadLine();
        }
    }
```

```
}
```

Output for Customers Class:



Code for Products class:

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

namespace Day7Project7
{
    //Author: Rc
    /**Create Products Class
     * create object and initialise with 5 values
     * and write code to  print Custormers whose count>=2
     * using for, count>=3 using foreach,count>=4 using lambda expression
     * *****/
    class Products //class declaration
    {
        //variables declaration
        public int id;
        public string name;
        public int count;
    }
    internal class Program
    {
        static void Main(string[] args)
        {
            //object creation
            Products[] p = new Products[] //array object
            {
               //initialising object with values
            new Products() { id = 1, name = "Snickers", count=4},
            new Products() { id = 2, name = "Milkybar",count=1},
            new Products() { id = 3, name = "Kitkat", count=3},
            new Products() { id = 4, name = "5 Star",count=6},
            new Products() { id = 5, name = "Dairymilk",count=5}
            };
```

```
            //for loop
            for (int i = 0; i < p.Length; i++)
            {
                if (p[i].count >= 2)
                    Console.WriteLine($"id={p[i].id},name={p[i].name},Number of
Products={p[i].count}");
            }
            //foreach loop
            foreach (var e in p)
            {
                if (e.count >= 3)
                    Console.WriteLine($"id={e.id},name={e.name},No. of
products={e.count}");
            }

            //lambda expression
            p.ToList().Where(e => e.count >= 4).ToList().ForEach(e =>
Console.WriteLine($"id={e.id},name={e.name},Num of Products={e.count}"));

            Console.ReadLine();
        }
    }
}
```

Output: