Day 7

Durga Prasad B
NB

Program 1: Three variables and two methods

**Code:**

```
namespace Day7__Program1_Three_variables_and_two_methods
{

    class Employees
    {
        public int Id;
        public string name;
        private String designation;
        public void ReadEmployee()
        {
            Console.WriteLine("enter Id");
            Id = Convert.ToInt32(Console.ReadLine());

            Console.WriteLine("enter name");
            name = Console.ReadLine();

            Console.WriteLine("enter designation");
            designation =Console.ReadLine();
        }
        public void PrintEmployee()
        {
            Console.WriteLine($"Id ={ Id},Name ={ name},salary
={designation}");

        }
    }
    class Program
    {
        static void Main(string[] args)
        {
            Employees emp1 = new Employees();
            emp1.ReadEmployee();
            emp1.PrintEmployee();
            Console.ReadLine();
        }
    }
}
```

**Output:**

```
D:\C#\DotNet Projects\Day7 Projects\Day7_ Program1_Three variables and two
enter Id
11
enter name
Durga Prasad B
enter designation
IT
Id =11,Name =Durga Prasad B,salary =IT
```

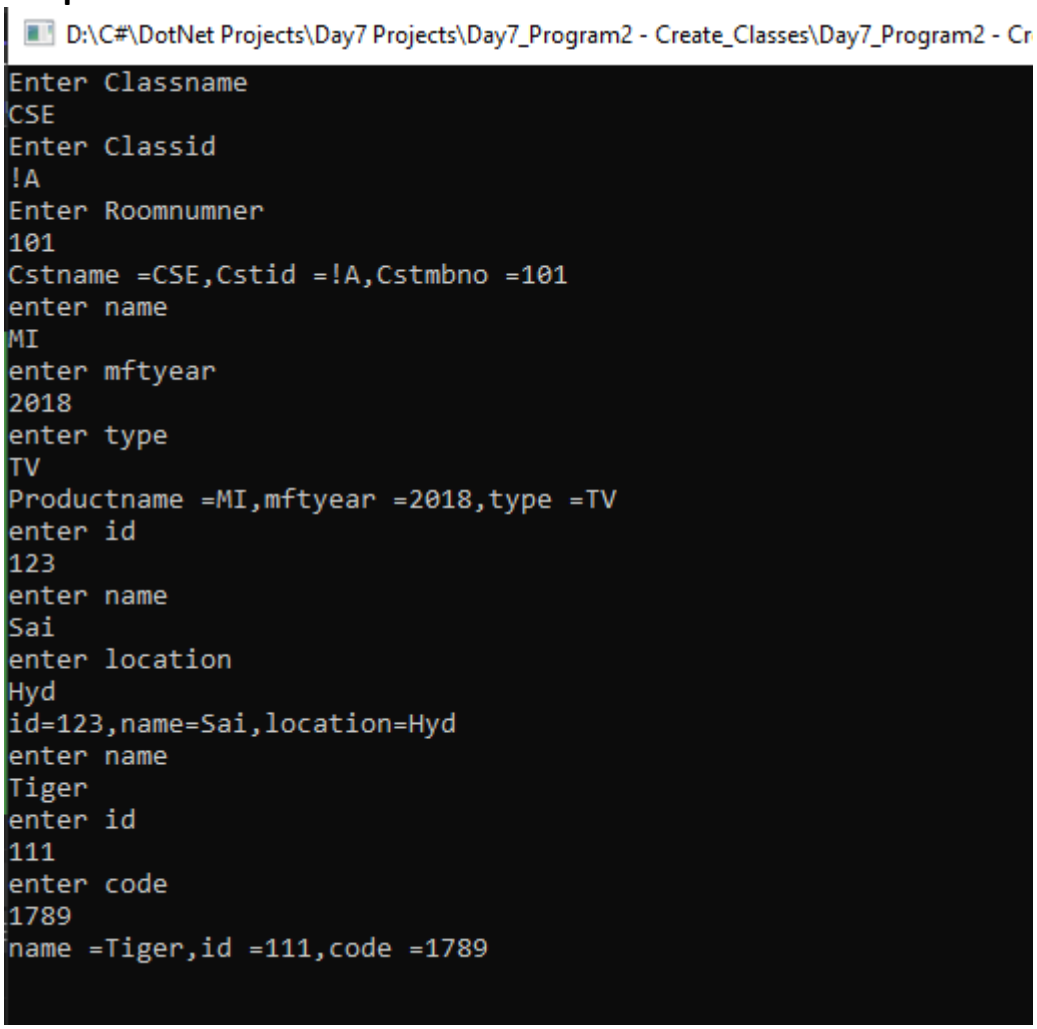
Program 2: Create below classes
Class 1 - Customer
Class 2 - Product
Class 3 - Seller
Class 4 - Department

**Code:**

```
namespace Day7_Program2___Create_Classes
{
    class Customer_class
    {
        private string Classname;
        private string Classid;
        private int Roomnumner;
        public void ReadCustomers()
        {
            Console.WriteLine("Enter Classname");
            Classname = Console.ReadLine();

            Console.WriteLine("Enter Classid");
            Classid = Console.ReadLine();

            Console.WriteLine("Enter Roomnumner");
            Roomnumner = Convert.ToInt32(Console.ReadLine());
        }
        public void PrintCustomers()
        {
            Console.WriteLine($"Cstname ={Classname},Cstid ={Classid},Cstmbno
={Roomnumner}");
        }
    }

    class Product
    {
        private string Productname;
        private int mftyear;
        private string type;

        public void ReadProduct()
        {
            Console.WriteLine("enter name");
            Productname = Console.ReadLine();

            Console.WriteLine("enter mftyear");
            mftyear = Convert.ToInt32(Console.ReadLine());

            Console.WriteLine("enter type");
            type = Console.ReadLine();
        }

        public void PrintProduct()
        {
            Console.WriteLine($"Productname ={Productname},mftyear ={
mftyear},type ={ type}");
        }
    }

    class Seller
    {
        private string id;
        private string name;
        private string location;
```

```
        public void ReadSeller()
        {
            Console.WriteLine("enter id");
            id = Console.ReadLine();
            Console.WriteLine("enter name");
            name = Console.ReadLine();
            Console.WriteLine("enter location");
            location = Console.ReadLine();
        }
        public void PrintSeller()
        {
            Console.WriteLine($"id={id},name={name},location={location}");
        }
    }

    class Department
    {
        private string name;
        private string id;
        private int code;
        public void ReadDepartment()
        {
            Console.WriteLine("enter name");
            name = Console.ReadLine();

            Console.WriteLine("enter id");
            id = Console.ReadLine();

            Console.WriteLine("enter code");
            code = Convert.ToInt32(Console.ReadLine());
        }
        public void PrintDepartment()
        {
            Console.WriteLine($"name ={ name},id ={ id},code ={ code}");
        }
    }

    class Program
    {
        static void Main(string[] args)
        {
            Customer_class Cst = new Customer_class();
            Cst.ReadCustomers();
            Cst.PrintCustomers();

            Product Pdt = new Product();
            Pdt.ReadProduct();
            Pdt.PrintProduct();

            Seller Sell = new Seller();
            Sell.ReadSeller();
            Sell.PrintSeller();

            Department Dpt = new Department();
            Dpt.ReadDepartment();
            Dpt.PrintDepartment();

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

**Output:**



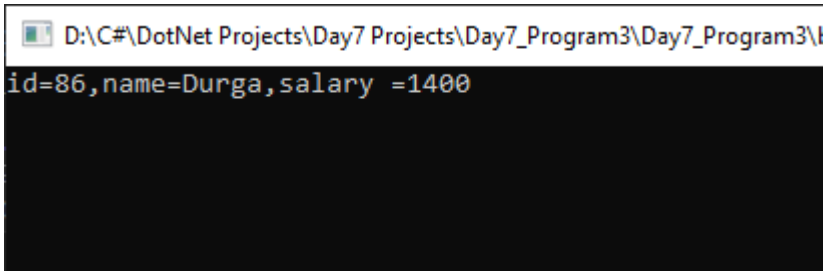

Program 3: Create employee class with 3 public variables. Also create employee object and initialize with values while creating object and print the values.

**Code:**

```
namespace Day7_Program3
{
    class Employee
    {
        public int id;
        public string name;
        public int salary;
    }
        internal class Program
    {
        static void Main(string[] args)
        {
      Employee emp = new Employee() { id = 86, name = "Durga", salary = 1400 };
```

```
     Console.WriteLine($"id={ emp.id},name={emp.name},salary ={ emp.salary}");
            Console.ReadLine();
        }
    }
}
```

**Output:**




Program 4: Create employee class, create employees array object and initialize with 5 employees and also write the code to print employees who is getting salary & gt;= 400 using for, foreach loops and also Lambda expressions.

**Code:**

```
namespace Day7_progarm4
{
    class Employee
    {
        public int id;
        public string name;
        public int salary;
    }
    internal class Program
    {
        static void Main(string[] args)
        {
            Employee[] emp = new Employee[]
            {
                new Employee(){id=1,name = "Meghanadh",salary = 1100},
                new Employee() {id=2,name ="Mohan",salary = 22200},
                new Employee() {id=3,name ="Swathi",salary = 14000},
                new Employee() {id=4,name ="Mounik",salary = 13000},
                new Employee() {id=5,name ="Usha",salary = 15000}
            };

                //for loop
                for (int i = 0; i < emp.Length; i++)
                {
                    if(emp[i].salary>=1600)
                    Console.WriteLine($"id={emp[i].id},name ={
emp[i].name},salary ={ emp[i].salary}");
                }
                    //foreach loop
                    foreach (var e in emp)
                    {
                        if (e.salary >= 1600)
                        Console.WriteLine($"id ={ e.id},name ={ e.name},salary
={ e.salary}");
                    }

                       //Lamda expression
```

```
                        emp.ToList().Where(e => e.salary >=
1600).ToList().ForEach(e =>Console.WriteLine($"id ={ e.id},name ={
e.name},salary ={ e.salary}"));
                        Console.ReadLine();
        }
    }
}
```

**Output:**

```
D:\C#\DotNet Projects\Day7 Projects\Day7_progarm4\Day7_progarm4\bin\Debug\Day7_prog
id=2,name =Mohan,salary =22200
id=3,name =Swathi,salary =14000
id=4,name =Mounik,salary =13000
id=5,name =Usha,salary =15000
id =2,name =Mohan,salary =22200
id =3,name =Swathi,salary =14000
id =4,name =Mounik,salary =13000
id =5,name =Usha,salary =15000
id =2,name =Mohan,salary =22200
id =3,name =Swathi,salary =14000
id =4,name =Mounik,salary =13000
id =5,name =Usha,salary =15000
```

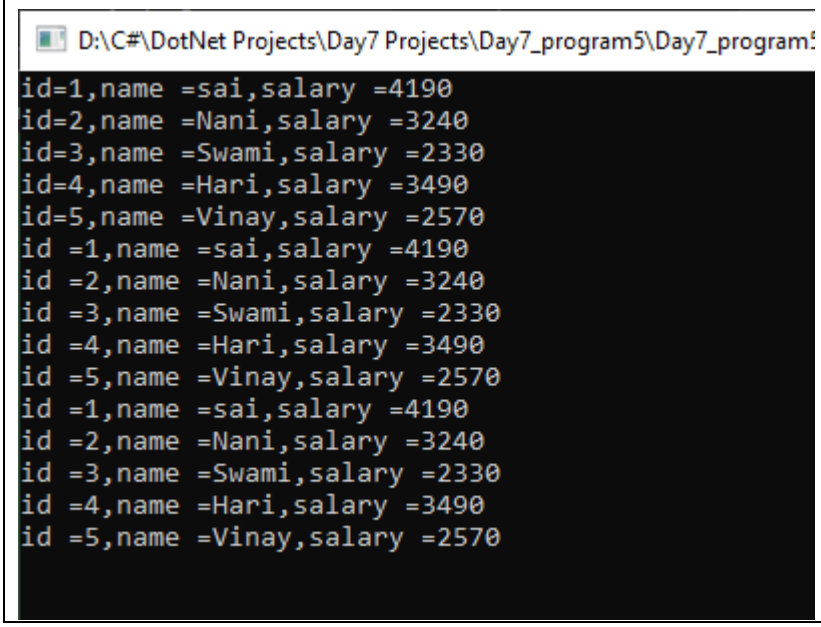
Program 5: Create employee class, create employees array object and initialize with 5 employees using for, foreach loops and also Lambda expressions.

**Code:**

```
namespace Day7_program5
{
    class Employee
    {
        public int id;
        public string name;
        public int salary;
    }
    internal class Program
    {
        static void Main(string[] args)
        {
            Employee[] emp = new Employee[]
            {
                new Employee(){id=1,name="sai",salary=4190},
                new Employee(){id=2,name="Nani",salary=3240},
                new Employee(){id=3,name="Swami",salary=2330},
                new Employee(){id=4,name="Hari",salary=3490},
                new Employee(){id=5,name="Vinay",salary=2570},
            };

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

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

**Outlook:**




**Q-6) Write Three definitions of Class and 4 points about Object.**

1) Class:
   - A class is group of variables and methods.
   - A class is like a design/blueprint to create objects.
   - A class consists of state and behaviour, where state talks about the variables and behaviour talks about the methods.

2) Object:
   - An object is an instance of a class.
   - We can create any number of Objects.
   - Objects occupy memory.
   - Objects are reference type.

Q-7) Pictorial representation of class and objects.