Day 7 Morning Assignments

By

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NB Health Care

1. Create Employee class with three variables and two methods. ReadEmployee and PrintEmployee and create an object and call methods.
Code:

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

namespace Day_7_Project_1
{
    // Author : Praveen Chakravarthi
    // Purpose : Employee Class Program

        // Class
        class Employee
        {
            public string Name;
            public int Age;
            public string Address;

            // Methods
            public void ReadEmployee()
            {
                Console.WriteLine("Enter the Name: ");
                Name = Console.ReadLine();

                Console.WriteLine("Enter the Age: ");
                Age = Convert.ToInt32(Console.ReadLine());

                Console.WriteLine("Enter the Address: ");
                Address = Console.ReadLine();
            }

            public void PrintEmployee()
            {
                Console.WriteLine($"Name={Name},Age={Age},Address={Address}");
            }

        }
    internal class Program
    {

        static void Main(string[] args)
        {
            Employee emp1 = new Employee();

            emp1.ReadEmployee();
            emp1.PrintEmployee();

            Console.ReadLine();
        }
```

```
    }
}
```

Output:

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3. Pictorially represent class and multiple objects
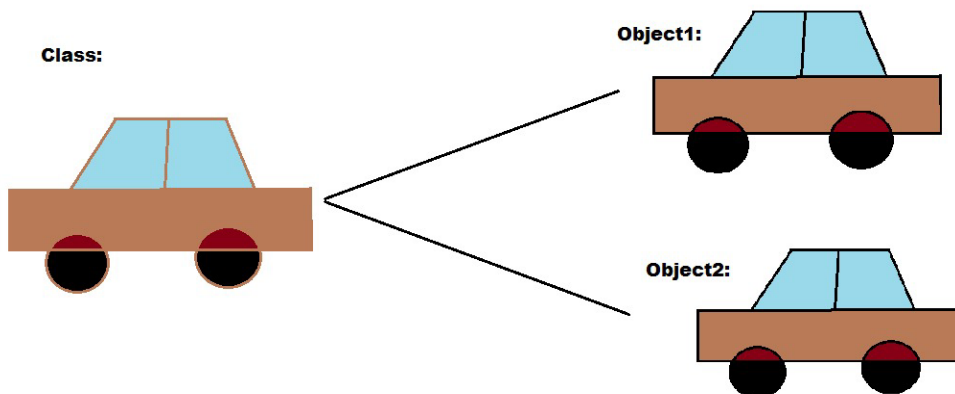
2. Write the 3 points of class and 4 points about object discussed in the class

Class:
1. A class consists of state and behaviour
2. A class is group of variables and method
3. A class is like a design to create objects

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

4. Create below classes:
a. Customer
b. Product
c. Seller
d. Department

Code:

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

namespace Day_7_Project_2
{
    // Author : Praveen Chakravarthi
    // Purpose : 4 Classes Program

    // Customer Class

    class Customer
    {
        private string CustomerName;
        private string CustomerEmailid;
        private int CustomerAge;

        public void ReadCustomer()
        {
            Console.WriteLine("Enter the Name: ");
            CustomerName =  Console.ReadLine();

            Console.WriteLine("Enter the Emailid: ");
            CustomerEmailid = Console.ReadLine();

            Console.WriteLine("Enter the Age: ");
            CustomerAge =Convert.ToInt32(Console.ReadLine());
```

```csharp
        }

        public void PrintCustomer()
        {
            Console.WriteLine($"CustomerName={CustomerName},
CustomerEmailid={CustomerEmailid}, CustomerAge={CustomerAge}");
        }
    }

    // Class Product
    class Product
    {
        private string ProductName;
        private string ProductBrand;
        private int ProductPrice;

        public void ReadProduct()
        {
            Console.WriteLine("Enter the ProductName: ");
            ProductName =Console.ReadLine();

            Console.WriteLine("Enter the ProductBrand: ");
            ProductBrand = Console.ReadLine();

            Console.WriteLine("Enter the ProductPrice: ");
            ProductPrice = Convert.ToInt32(Console.ReadLine());
        }

        public void PrintProduct()
        {
            Console.WriteLine($"ProductName={ProductName},
ProductBrand={ProductBrand}, ProductPrice={ProductPrice}");
        }
    }

    // Class Seller
    class Seller
    {
        private string SellerName;
        private string SellerEmailid;
        private int SellerAge;

        public void ReadSeller()
        {
            Console.WriteLine("Enter the SellerName: ");
            SellerName = Console.ReadLine();

            Console.WriteLine("Enter the SellerEmailid: ");
            SellerEmailid = Console.ReadLine();

            Console.WriteLine("Enter the SellerAge: ");
            SellerAge =Convert.ToInt32(Console.ReadLine());
        }
```

```csharp
        public void PrintSeller()
        {
            Console.WriteLine($"SellerName={SellerName}, SellerEmailid={SellerEmailid},
SellerAge={SellerAge}");
        }
    }

    // Class Department
    class Department
    {
        private string DepartmentHead;
        private string DepartmentType;
        private int DepartmentStrength;

        public void ReadDepartment()
        {
            Console.WriteLine("Enter the DepartmentHead: ");
            DepartmentHead = Console.ReadLine();

            Console.WriteLine("Enter the DepartmenType: ");
            DepartmentType = Console.ReadLine();

            Console.WriteLine("Enter the DepartmentStrength: ");
            DepartmentStrength = Convert.ToInt32(Console.ReadLine());
        }
        public void PrintDepartment()
        {
            Console.WriteLine($"DepartmentHead={DepartmentHead},
DepartmentType={DepartmentType}, DepartmentStrength={DepartmentStrength}");
        }
    }

    internal class Program
    {
        static void Main(string[] args)
        {
            Customer Cust1 = new Customer();
            Cust1.ReadCustomer();
            Cust1.PrintCustomer();

            Product Prod1 = new Product();
            Prod1.ReadProduct();
            Prod1.PrintProduct();

            Seller Sell1 = new Seller();
            Sell1.ReadSeller();
            Sell1.PrintSeller();

            Department Dept1 = new Department();
            Dept1.ReadDepartment();
            Dept1.PrintDepartment();

            Console.ReadLine();
        }
```

```
    }
}
```

Output:


```
C:\Praveen Chakravarthi Projects\DAY 7 Morning Assignments\Day 7 Project 2\...
Enter the Name:
Rajesh
Enter the Emailid:
abc@gmail.com
Enter the Age:
34
CustomerName=Rajesh, CustomerEmailid=abc@gmail.com, CustomerAge=34
Enter the ProductName:
Television
Enter the ProductBrand:
LG
Enter the ProductPrice:
24999
ProductName=Television, ProductBrand=LG, ProductPrice=24999
Enter the SellerName:
Anil
Enter the SellerEmailid:
bcd@gmail.com
Enter the SellerAge:
43
SellerName=Anil, SellerEmailid=bcd@gmail.com, SellerAge=43
Enter the DepartmentHead:
Roshan
Enter the DepartmenType:
Packing
Enter the DepartmentStrength:
40
DepartmentHead=Roshan, DepartmentType=Packing, DepartmentStrength=40
```

5. Create Employee class with 3 public variables. Create Employee object and initialise with values while creating object and print the values.

Code:

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
```
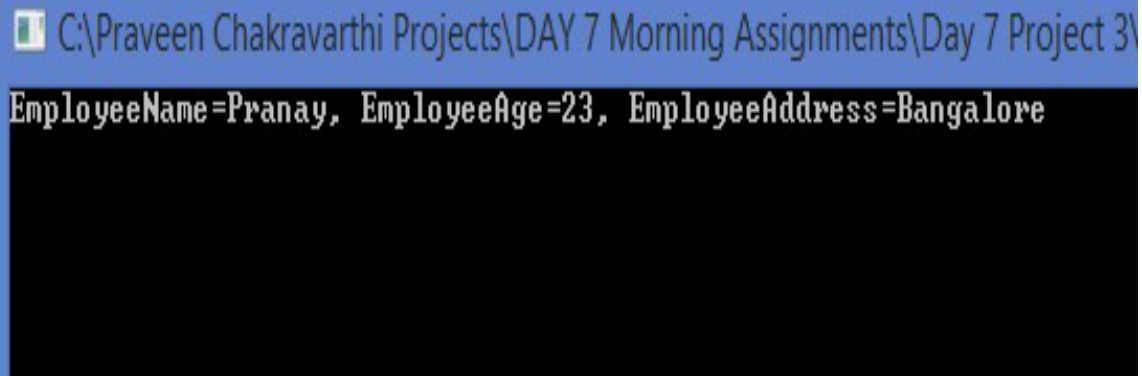
```
namespace Day_7_Project_3
{
    // Author : Praveen Chakravarthi
    // Purpose : Initialising values while object creation to Employee Class
    class Employee
    {
        public string Name;
        public int Age;
        public string Address;
    }

    internal class Program
    {
        // Initialising Values at Object Creatiom
        static void Main(string[] args)
        {
            Employee emp1 = new Employee() { Name = "Pranay", Age = 23, Address =
"Bangalore" };
            Console.WriteLine($"EmployeeName={emp1.Name}, EmployeeAge={emp1.Age},
EmployeeAddress={emp1.Address}");
            Console.ReadLine();
        }
    }
}
```

Output:

6. 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 100p
c.lambda expression.

Code:

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

namespace Day_7_Project_4
{
    // Author : Praveen Chakravarthi
    // Purpose : Employees class using Arrays and Printing Values using Various loops

    // Class Employee

    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= "Akash", Salary=25000},
            new Employee() {Id=2, Name= "Bhanu", Salary=30000},
            new Employee() {Id=3, Name= "Ramu", Salary=35000},
            new Employee() {Id=4, Name= "Dinesh", Salary=40000},
            new Employee() {Id=5, Name= "Sai", Salary=50000}

            };
            // Printing 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}");
            }

            // Printing Values using Foreach Loop
            foreach (var e in emp)
            {
                Console.WriteLine($"Id={e.Id}, Name= {e.Name}, Salary= {e.Salary}");
            }
```
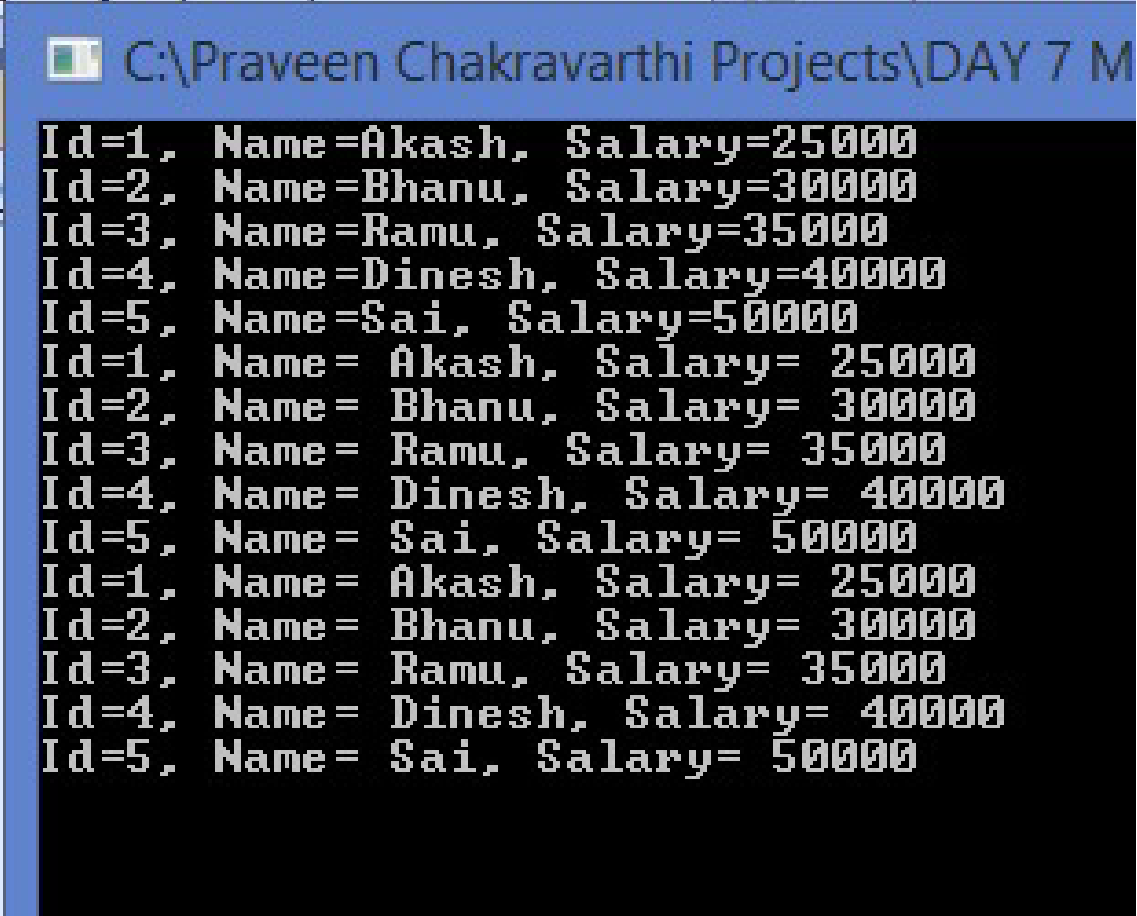
```
        // Printing Values of using Lambda Expression

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

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

Output:

```
C:\Praveen Chakravarthi Projects\DAY 7 M
Id=1, Name=Akash, Salary=25000
Id=2, Name=Bhanu, Salary=30000
Id=3, Name=Ramu, Salary=35000
Id=4, Name=Dinesh, Salary=40000
Id=5, Name=Sai, Salary=50000
Id=1, Name= Akash, Salary= 25000
Id=2, Name= Bhanu, Salary= 30000
Id=3, Name= Ramu, Salary= 35000
Id=4, Name= Dinesh, Salary= 40000
Id=5, Name= Sai, Salary= 50000
Id=1, Name= Akash, Salary= 25000
Id=2, Name= Bhanu, Salary= 30000
Id=3, Name= Ramu, Salary= 35000
Id=4, Name= Dinesh, Salary= 40000
Id=5, Name= Sai, Salary= 50000
```

7. 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:

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

namespace Day_7_Project_5
{
    // Author : Praveen Chakravarthi
    // Purpose : Employees class using Arrays with If Condition

    // Class Employee

    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= "Akash", Salary=25000},
          new Employee() {Id=2, Name= "Bhanu", Salary=30000},
          new Employee() {Id=3, Name= "Ramu", Salary=35000},
          new Employee() {Id=4, Name= "Dinesh", Salary=40000},
          new Employee() {Id=5, Name= "Sai", Salary=50000}

          };
            // Printing Values using For Loop
            for (int i = 0; i < emp.Length; i++)
            {
                if(emp[i].Salary>=35000)
                Console.WriteLine($"Id={emp[i].Id}, Name={emp[i].Name},
Salary={emp[i].Salary}");
            }

            // Printing Values using Foreach Loop
            foreach (var e in emp)
            {
                if(e.Salary>=35000)
                Console.WriteLine($"Id={e.Id}, Name= {e.Name}, Salary= {e.Salary}");
            }

            // Printing Values of using Lambda Expression

            emp.ToList().Where(e => e.Salary >= 35000).ToList().ForEach(e =>
Console.WriteLine($"Id={e.Id}, Name= {e.Name}, Salary= {e.Salary}"));

            Console.ReadLine();
```

```
        }
    }
}
```

Output:

```
C:\Praveen Chakravarthi Projects\DAY 7
Id=3, Name=Ramu, Salary=35000
Id=4, Name=Dinesh, Salary=40000
Id=5, Name=Sai, Salary=50000
Id=3, Name= Ramu, Salary= 35000
Id=4, Name= Dinesh, Salary= 40000
Id=5, Name= Sai, Salary= 50000
Id=3, Name= Ramu, Salary= 35000
Id=4, Name= Dinesh, Salary= 40000
Id=5, Name= Sai, Salary= 50000
```