**DAY7 MORNNG ASSIGNMENT**

**BY**

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## PROJECT 1:

Create Employee class with three variables and two methods Read Employee and Print Employee and create an object and call methods.

## CODE:

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

namespace Day7MorningAssignment
{
  //*****************************************//
  //****Done By: Pavan //
  //***** Purpose: Creating Class Employee;//
  class Employee
  {
    public int id;
    public string name;
    public string salary;
    public void ReadEmployee()
    {
      Console.WriteLine("enter id:");
      id = Convert.ToInt32(Console.ReadLine());

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

      Console.WriteLine("enter salary:");

salary = Console.ReadLine();
    }
    public void PrintEmployee()
    {
      Console.WriteLine($"id={id},name = {name}, salary= {salary}");
    }
    internal class Program
    {
      static void Main (string [] args)
      {
        Employee emp = new Employee ();
```

```
            emp.ReadEmployee();
            emp.PrintEmployee();
            Console.ReadLine();

        }
    }
  }
}
```

**OUTPUT:**

```
enter id:
12
enter name:
pavan
enter salary:
20000
id=12,name = pavan,salary= 20000
```

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

**CLASS:**

**Definition1:** A class is a group of variables and methods and in which methods deals with those variables.

**Definition2:** Also, a class is like a design to create objects.

**Definition3:** And also, it can be defined as a class consists of the state and behavior.

**OBJECT**:

- An object is an instance of a class.
- We can create any number of objects
- Objects occupy memory.
- Objects are reference type because when a variable is occupying a memory so called as reference type.
- An Object consists of 3 types

1) **STATE**: It is represented by attributes of an object.

2) **BEHAVIOR**: It is represented by methods of an object.

3) **IDENTITY**: It gives a unique name to an object and enables one object to interact with other objects.

**PROJECT: 5**

Create Employee class with 3 public variables. Create Employee object and initialize 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 Day7Project2
{
   //**** DONE BY: PAVAN ****//
   //*** PURPOSE: CREATING 3 PUBLIC VARIABLES AND INITIALIZING IT.****//
   class Employee
   {
      public int id;
      public string name;
      public int salary;
   }
   internal class Program
   {
      static void Main (string [] args)
      {
         Employee emp = new Employee () {id = 12345, name = "PAVAN", salary = 25000};
         Console.WriteLine($"id = {emp.id}, name = {emp.name}, salary = {emp.salary}");
         Console.ReadLine();
      }
   }
}
```

**OUTPUT:**

```
id = 12345,name = PAVAN,salary = 25000
```

## PROJECT: 6

**Create employees array object and initialize with 5 employees using 3 loops.**

## CODE:

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

namespace Day7Project3
{
    //**** DONE BY: PAVAN ****//
    //*** PURPOSE: CREATING 3 PUBLIC VARIABLES AND INITIALIZING IT USING 3 LOOPS****//
    class Employee
    {
       public int id;
       public string name;
       public int salary;
    }
    internal class Program
  {
    static void Main (string [] args)
    {
       Employee[] employees = new Employee[]
       {

            new Employee() {id = 1, name = "PAVAN", salary = 50000},
            new Employee() {id = 2, name = "MANOJ.K", salary = 45000},
            new Employee() {id = 3, name = "MANOJ.Y", salary = 43000},
            new Employee() {id = 4, name = "VAMSI", salary = 41000},
            new Employee() {id = 5, name = "VIHAR", salary = 42000}
         };
       //for LOOP//
       for (int i = 0; i < employees. Length; i++)
       {
          Console.WriteLine($"id ={employees[i].id}, name = {employees[i].name}, salary =
{employees[i].salary}");
       }
       Console.ReadLine();
       // foreach loop//
       foreach (var e in employees)
       { Console.WriteLine($"id ={e.id}, name = {e.name}, salary = {salary}");
       }
       Console.ReadLine();

       //Lambda expression//
       employees.ToList().ForEach(e => Console.WriteLine($"id ={e.id}, name = {e.name}, salary = {e.salary}"));
       Console.ReadLine();
    }
  }
```

```
}
```

**OUTPUT:**

```
id =1,name = PAVAN,salary = 50000
id =2,name = MANOJ.K,salary = 45000
id =3,name = MANOJ.Y,salary = 43000
id =4,name = VAMSI,salary = 41000
id =5,name = VIHAR,salary = 42000

id =1,name = PAVAN,salary = 50000
id =2,name = MANOJ.K,salary = 45000
id =3,name = MANOJ.Y,salary = 43000
id =4,name = VAMSI,salary = 41000
id =5,name = VIHAR,salary = 42000

id =1,name = PAVAN,salary = 50000
id =2,name = MANOJ.K,salary = 45000
id =3,name = MANOJ.Y,salary = 43000
id =4,name = VAMSI,salary = 41000
id =5,name = VIHAR,salary = 42000
```

## PROJECT: 7

**write code to print employees who is getting salary >=43000**

**CODE:**

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

namespace Day7Project3
{
  //**** DONE BY: PAVAN ****//
  //*** PURPOSE: CALCULATING THE RANGE USING 3 LOOPS****//
  class Employee
  {
    public int id;
    public string name;
    public int salary;
  }
  internal class Program
  {
    static void Main (string [] args)
    {
      Employee[] employees = new Employee[]
```

```
        {

            new Employee() {id = 1, name = "PAVAN", salary = 50000},
            new Employee() {id = 2, name = "MANOJ.K", salary = 45000 },
            new Employee() {id = 3, name = "MANOJ.Y", salary = 43000},
            new Employee() {id = 4, name = "VAMSI", salary = 41000},
            new Employee() {id = 5, name = "VIHAR", salary = 42000}
          };
        //for LOOP//
        for (int i = 0; i < employees.Length; i++)
        {
          if (employees[i].salary>= 43000)
          Console.WriteLine($"id ={employees[i].id}, name = {employees[i].name}, salary =
{employees[i].salary}");
        }
        Console.ReadLine();
        // foreach loop//
        foreach (var e in employees)
        {
          if(e.salary>= 43000)
          Console.WriteLine($"id ={e.id}, name = {e.name}, salary = {e.salary}");
        }
        Console.ReadLine();

        //Lambda expression//

        employees.ToList(). Where(e=>e.salary >= 43000).ToList().ForEach(e => Console.WriteLine($"id ={e.id},
name = {e.name}, salary = {e.salary}"));
        Console.ReadLine();
      }
   }
}
```

**OUTPUT:**

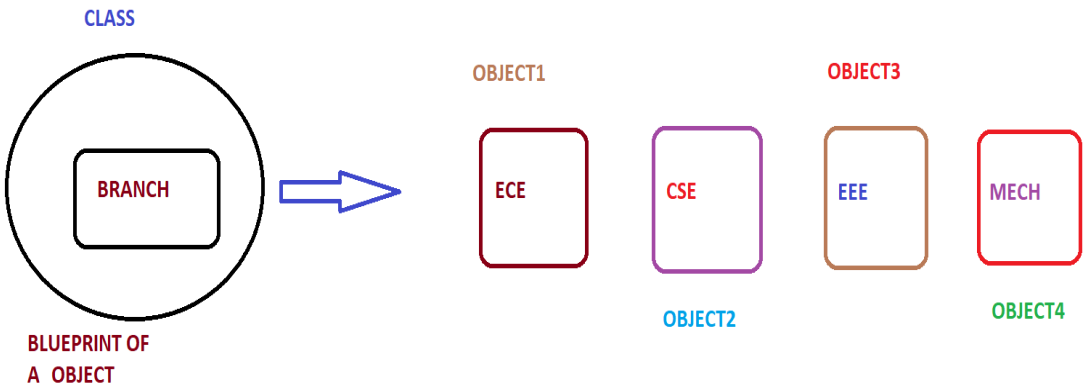
```
id =1,name = PAVAN,salary = 50000
id =2,name = MANOJ.K,salary = 45000
id =3,name = MANOJ.Y,salary = 43000
```

**Q3)**

**Pictorially represent class and multiple objects**

**CLASS**:

A class is like a design to create objects. It's like a blueprint to the object. In the below pictorial diagram, we can observe the blueprint of object.




The above blueprint explains that the different branches present in a college. Here College is a class and Branch is a method. So, Branch is a method, in a class different methods are selected like ECE, CSE, EEE..etc..

**PROJECT: 4**

**Create below classes: 1. Customer 2. Product 3. Seller 4. Department**

**CODE:**

```
using System;
using System.Collections.Generic;

// Author: PAVAN
// Purpose: Creating a 4 different Classes.
// Reference: To Check the Reference of the code. Go through the Day7Project2 folder for complete Code.
namespace Day7Project2
{
   internal class Program
   {
      // Customer Class
using System;
using System.Collections.Generic;
using System. LINQ;
using System. Text;
using System.Threading.Tasks;

namespace Day7Project2
{
   internal class Customer
   {
      private int customerId;
      private string customerName;
```

```
        private string customerSubscriptionDetails;


        public void CreateCustomerData()
        {
            Console.WriteLine("\nEnter Customer ID: ");
            customerId = Convert.ToInt32(Console.ReadLine());

            Console.WriteLine("\nEnter Customer Name: ");
            customerName = Console.ReadLine();

            Console.WriteLine("\nEnter Customer Subscription Type: ");
            customerSubscriptionDetails = Console.ReadLine();

                }

        public void DisplayCustomerProfile()
        {
            Console.WriteLine("\n---------- Customer Details ----------\n");
            Console.WriteLine($"\n\tCustomer Id: {customerId}\n\tCustomer Name: {customerName}" +
                $"\n\subscription Type: {customerSubscriptionDetails}");

        }
    }
}
                // Products Class//
using System;
using System.Collections.Generic;
using System. LINQ;
using System. Text;
using System.Threading.Tasks;

namespace Day7Project2
{
    internal class Products
    {
        private int productID;
        private string productName;
        private string productBrand;
        private int productPrice;

        public void CreateProductData()
        {
            Console.WriteLine("\nEnter the Product ID: ");
            productID = Convert.ToInt32(Console.ReadLine());

            Console.WriteLine("\nEnter the Product Name: ");
            productName = Console.ReadLine();

            Console.WriteLine("\nEnter the Product Brand: ");
            productBrand = Console.ReadLine();

            Console.WriteLine("\nEnter the Product Price: ");
```

```
            productPrice = Convert.ToInt32(Console.ReadLine());
            Console.WriteLine("\n");
        }

        public void DisplayProducts()
        {
            Console.WriteLine("\n---------- Product Details ----------\n");
            Console.WriteLine($"\n\tProduct Id: {productID}\n\tProduct Name: {productName}" +
                $"\n\tProduct Brand: {productBrand}\n\tProduct Price: {productPrice}");
        }
    }
}
```

//Seller class//

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

namespace Day7Project2
{
    internal class Seller
    {
        private int sellerId;
        private string sellerName;
        private string sellerLocation;
        private string sellerType;

        public void CreateSellerData()
        {
            Console.WriteLine("\nEnter Seller Id: ");
            sellerId = Convert.ToInt32(Console.ReadLine());

            Console.WriteLine("\nEnter Seller Name : ");
            sellerName = Console.ReadLine();

            Console.WriteLine("\nEnter Seller Location : ");
            sellerLocation = Console.ReadLine();

            Console.WriteLine("\nEnter Seller Type: ");
            sellerType = Console.ReadLine();
            Console.WriteLine("\n");
        }
        public void DisplaySellerData()
        {
            Console.WriteLine(" Seller Details ");
            Console.WriteLine($"\n\tSeller Id: {sellerId}\n\tSeller Name: {sellerName}" +
                $"\n\tSeller Location: {sellerLocation}\n\tSeller Type: {sellerType}");
        }
    }
}
```

// Department class//

```
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;

      public void ReadDepartment()
      {
         Console.WriteLine("\n Enter Department ID: ");
         departmentId = Convert.ToInt32(Console.ReadLine());

         Console.WriteLine("\nEnter Department Name: ");
         departmentName = Console.ReadLine();
         Console.WriteLine("\n");
      }
      public void DisplayDepartment()
      {
         Console.WriteLine(" Department Details ");
         Console.WriteLine($"\n\t Department Id: {departmentId}\n\t Department Name: {departmentName}");
      }
   }
}
```

**OUTPUT:**

```
Enter Customer Details :

Enter Customer ID :
12345

Enter Customer Name :
pavan

Enter Customer Subscription Type :
aha
Enter Product Details :

Enter the Product ID :
45678

Enter the Product Name :
Tv

Enter the Product Brand :
Sony

Enter the Product Price :
70000


Enter Seller Details :

Enter Seller Id :
898989

Enter Seller Name :
Bajaj

Enter Seller Location :
Nizampet

Enter Seller Type :
Online
```

```
Enter Department Details :

 Enter Department ID :
4243424

Enter Department Name :
Insurance


Customer Details

        Customer Id : 12345
        Customer Name : pavan
        Subscription Type : aha
        Mobile No. :
 Product Details

        Product Id : 45678
        Product Name : Tv
        Product Brand : Sony
        Product Price : 70000
Seller Details

        Seller Id : 898989
        Seller Name : Bajaj
        Seller Location : Nizampet
        Seller Type : Online
Dept Details

         Department Id : 4243424
         Department Name : Insurance
```

## PROJECT: 8

Create list of Customer a Product Arrays and practice for, foreach and lambda expression

## CODE:

```
using System;
using System.Linq;

// Author: PAVAN
// Purpose: Create Customer and Products class data in the form of Array while USING 3 LOOPS//
namespace Day7Project8
{
   class Customer
   {
      public int customerId;
      public string customerName;
      public string customer Subscription;
   }

   class Products
   {
      public int productId;
      public string productName;
      public int productPrice;
   }
```

```
  internal class Program
  {
     static void Main (string [] args)
     {
        Customer[] customers = new Customer[]
        {
           new Customer(){ customerId = 1, customerName = "Manoj.Karnatapu", customerSubscription = "Prime
User"},
           new Customer(){ customerId = 2, customerName = "Pavan Kumar", customerSubscription = "AHA"},
           new Customer(){ customerId = 3, customerName = "Vihar Dasari", customerSubscription = "NETFLIX"}
        };
        // Using For Loop

        for (int i = 0; i < customers.Length; i++)
        {
           Console.WriteLine($"Customer Id = {customers[i].customerId},  Customer Name =
{customers[i].customerName},  Customer Subscription = {customers[i].customerSubscription}");
        }

        // Using For Each Loop
        foreach (var e in customers)
        {
           Console.WriteLine($"Customer.ID = {e.customerId},  Customer.Name= {e.customerName},
Customer.Subscription = {e.customerSubscription}");
        }
        // Using Lambda Expression

        customers.ToList().ForEach(d => Console.WriteLine($"ID = {d.customerId},  Name = {d.customerName},
Subscription = {d.customerSubscription}"));


        // For Products Class
        Products[] products = new Products[]
        {
           new Products(){ productId = 1, productName = "SAMSUNG TV", productPrice = 40000},
           new Products(){ productId = 2, productName = "SONY", productPrice = 130000},
           new Products(){ productId = 3, productName = "OnePlus TV", productPrice = 48000}
        };
        // Using For Loop
        for (int i = 0; i < products.Length; i++)
        {
           Console.WriteLine($"Product Id = {products[i].productId},  Product Name = {products[i].productName},
Product price = {products[i].productPrice}");
        }

        // Using For Each Loop
        foreach (var p in products)
        {
           Console.WriteLine($"Product.ID = {p.productId},  Product.Name= {p.productName},  Product.Price =
{p.productPrice}");
        }
        // Using Lambda Expression
```

```
        products.ToList().ForEach(d => Console.WriteLine($"ID = {d.productId},  Name = {d.productName},  Price = {d.productPrice}"));

        Console.ReadLine();

    }
  }
}
```

**OUTPUT:**

```
Customer Id = 1,  Customer Name = Manoj.Karnatapu,  Customer Subscription = Prime User
Customer Id = 2,  Customer Name = Pavan Kumar,  Customer Subscription = AHA
Customer Id = 3,  Customer Name = Vihar Dasari,  Customer Subscription = NETFLIX
Customer.ID = 1,  Customer.Name= Manoj.Karnatapu,  Customer.Subscription = Prime User
Customer.ID = 2,  Customer.Name= Pavan Kumar,  Customer.Subscription = AHA
Customer.ID = 3,  Customer.Name= Vihar Dasari,  Customer.Subscription = NETFLIX
ID = 1,  Name = Manoj.Karnatapu,  Subscription = Prime User
ID = 2,  Name = Pavan Kumar,  Subscription = AHA
ID = 3,  Name = Vihar Dasari,  Subscription = NETFLIX
Product Id = 1,  Product Name = SAMSUNG TV,  Product price = 40000
Product Id = 2,  Product Name = SONY,  Product price = 130000
Product Id = 3,  Product Name = OnePlus TV,  Product price = 48000
Product.ID = 1,  Product.Name= SAMSUNG TV,  Product.Price = 40000
Product.ID = 2,  Product.Name= SONY,  Product.Price = 130000
Product.ID = 3,  Product.Name= OnePlus TV,  Product.Price = 48000
ID = 1,  Name = SAMSUNG TV,  Price = 40000
ID = 2,  Name = SONY,  Price = 130000
ID = 3,  Name = OnePlus TV,  Price = 48000
```