

Day 22 Assignment

By

Praveen Chakravarthi

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NB Health Care

**1. Develop an Application (Console App) for Employee Management with Business Logic Layer and Data Access Layer and put screenshots of the Output. With below validations**

**Employee ID  
Employee Name  
Employee Salary  
Employee Age**

**Code :**

**Data Access Layer :**

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

namespace DataAccessLayer
{
    // Author : Praveen Chakravarthi
    // Purpose : Data Access Layer Library
    public static class EmployeeDAL
    {
        public static string FilePath = "C:\\Day 22 Project\\Emolyees.txt";
        /// <summary>
        /// This Method Adds Employees Data
        /// </summary>
        public static bool AddEmployee(int ID, string Name, int Salary, int Age)
        {
            try
            {
                string Content = string.Concat(ID, ",", Name, ",", Salary, ",", Age);
                File.AppendAllText(FilePath, Content + Environment.NewLine);
                return true;
            }
            catch (Exception)
            {
                return false;
            }
        }
        /// <summary>
        /// This Method is used to Search an Employee by ID
        /// </summary>
        public static List<string> GetEmployeeByID(int ID)
        {
            var AllEmployees = File.ReadAllLines(FilePath);
            bool FileFound = false;
            List<string> EmployeeFound = new List<string>();

            foreach (var Employee in AllEmployees)
            {
```

```

        var Details = Employee.Split(',');
        if (Convert.ToInt32(Details[0]) == ID)
        {
            FileFound = true;
            EmployeeFound.Add(Employee);
            break;
        }
    }
    return EmployeeFound;
}
/// <summary>
/// This Method is used to Search an Employee by Name
/// </summary>
public static List<string> GetEmployeesByName(string Name)
{
    var AllEmployees = File.ReadAllLines(FilePath);
    List<string> EmployeeFound = new List<string>();

    foreach (var Employee in AllEmployees)
    {
        var Details = Employee.Split(',');
        if (Details[1].Contains(Name))
        {
            EmployeeFound.Add(Employee);
        }
    }
    return EmployeeFound;
}
/// <summary>
/// This Method Displays all Employees Data
/// </summary>
public static string[] DisplayAllEmployees()
{
    var Employees = File.ReadAllLines(FilePath);
    return Employees;
}
}
}

```

### **Business Logic Layer :**

```

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

namespace BusinessLogicLayer
{
    // Author : Praveen Chakravarthi
    // Purpose : Business Logic Layer Library
    public static class EmployeeBLL
    {

```

```

    /// <summary>
    /// This Method Adds Employees Data
    /// </summary>

    public static bool AddEmployee(int ID, string Name, int Salary, int Age)
    {

        var Result = EmployeeDAL.AddEmployee(ID, Name, Salary, Age);
        return Result;
    }
    /// <summary>
    /// This Method is used to Search an Employee by ID
    /// </summary>
    public static List<string> GetEmployeeByID(int ID)
    {
        var Result = EmployeeDAL.GetEmployeeByID(ID);
        return Result;
    }
    /// <summary>
    /// This Method is used to Search an Employee by Name
    /// </summary>
    public static List<string> GetEmployeesByName(string Name)
    {
        var Result = EmployeeDAL.GetEmployeesByName(Name);
        return Result;
    }
    /// <summary>
    /// This Method Displays all Employees Data
    /// </summary>
    public static string[] DisplayAllEmployees()
    {
        var Result = EmployeeDAL.DisplayAllEmployees();
        return Result;
    }
}

```

### **Employee Management Application :**

```

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

namespace EmployeeManagementApplication
{
    // Author : Praveen Chakravarthi
    // Purpose : Employee Management Application
    public static class Program
    {
        static void Main(string[] args)
    }
}

```

```

{
    int a; string b;

    Console.WriteLine("*****");
    Console.WriteLine("Employee Management Application");
    Console.WriteLine("*****");
    do
    {
        Console.WriteLine("1. Add Employee :");
        Console.WriteLine("2. Get Employee by ID :");
        Console.WriteLine("3. Get Employee by Name :");
        Console.WriteLine("4. Display All Employee :");
        Console.WriteLine("Enter Your Choice :");
        a = Convert.ToInt32(Console.ReadLine());
        switch (a)
        {
            case 1:
                AddEmployee();
                break;
            case 2:
                GetEmployeeByID();
                break;
            case 3:
                GetEmployeeByName();
                break;
            case 4:
                DisplayAllEmployees();
                break;
            default:
                Console.WriteLine("Invalid");
                break;
        }
        Console.WriteLine("Do You want to Continue(y/n): ");
        b = Console.ReadLine();
    }
    while (b == "y");
}

/// <summary>
/// This Method Adds Employees Data
/// </summary>
public static void AddEmployee()
{
    // Reading from User
    int ID; string Name; int Salary; int Age;
    Console.WriteLine("Enter Employee ID :");
    ID = Convert.ToInt32(Console.ReadLine());
    Console.WriteLine("Enter Employee Name :");
    Name = Console.ReadLine();
    Console.WriteLine("Enter Employee Salary :");
    Salary = Convert.ToInt32(Console.ReadLine());
    Console.WriteLine("Enter Employee Age :");
    Age = Convert.ToInt32(Console.ReadLine());
}

```

```

// BLL Logic
var Result = EmployeeBLL.AddEmployee(ID, Name, Salary, Age);
if (Result)
    Console.WriteLine("Employees Details Added Succesfully");
else
    Console.WriteLine("Error Occured");
}
/// <summary>
/// This Method is used to Search an Employee by ID
/// </summary>
public static void GetEmployeeByID()
{
    int ID;
    Console.WriteLine("Enter Employee ID to be Searched :");
    ID = Convert.ToInt32(Console.ReadLine());
    var Result = EmployeeBLL.GetEmployeeByID(ID);
    if (Result.Count == 0)
        Console.WriteLine("No Records");
    else
    {
        Result.ForEach(d => Console.WriteLine(d));
    }
}
/// <summary>
/// This Method is used to Search an Employee by Name
/// </summary>
public static void GetEmployeeByName()
{
    string Name;
    Console.WriteLine("Enter Name of the Employee to be Searched :");
    Name = Console.ReadLine();

    var Result = EmployeeBLL.GetEmployeesByName(Name);
    if (Result.Count==0)
        Console.WriteLine("No Records");
    else
        Result.ForEach(d => Console.WriteLine(d));
}
/// <summary>
/// This Method Displays all Employees Data
/// </summary>
public static void DisplayAllEmployees()
{
    var Result = EmployeeBLL.DisplayAllEmployees();
    Result.ToList().ForEach(d => Console.WriteLine(d));
    Console.ReadLine();
}
}
}

```

**Output :**

C:\Day 22 Project\PraveenCFinalProject\EmployeeM

```
*****
Employee Management Application
*****
```

```
1. Add Employee :
2. Get Employee by ID :
3. Get Employee by Name :
4. Display All Employee :
Enter Your Choice :
1
Enter Employee ID :
601
Enter Employee Name :
Rohit
Enter Employee Salary :
25500
Enter Employee Age :
25
Employees Details Added Succesfully
```

```
Do You want to Continue(y/n):
y
1. Add Employee :
2. Get Employee by ID :
3. Get Employee by Name :
4. Display All Employee :
Enter Your Choice :
2
Enter Employee ID to be Searched :
301
301,Praveen,30000,24
Do You want to Continue(y/n):
y
```

```
1. Add Employee :
2. Get Employee by ID :
3. Get Employee by Name :
4. Display All Employee :
Enter Your Choice :
3
Enter Name of the Employee to be Searched :
Sai
101,Sai Kumar,20000,21
201,Sai Varun,24000,22
401,SaiKrishna,25000,23
```

```
Do You want to Continue(y/n):
y
1. Add Employee :
2. Get Employee by ID :
3. Get Employee by Name :
4. Display All Employee :
Enter Your Choice :
3
Enter Name of the Employee to be Searched :
Manohar
No Records
```

```
Do You want to Continue(y/n):
y
1. Add Employee :
2. Get Employee by ID :
3. Get Employee by Name :
4. Display All Employee :
Enter Your Choice :
4
101,Sai Kumar,20000,21
201,Sai Varun,24000,22
301,Praveen,30000,24
401,SaiKrishna,25000,23
501,Ganesh,27000,26
601,Rohit,25500,25
```

Emolyees.txt - Notepad

File	Edit	Format	View	Help
101,Sai Kumar,20000,21				
201,Sai Varun,24000,22				
301,Praveen,30000,24				
401,SaiKrishna,25000,23				
501,Ganesh,27000,26				
601,Rohit,25500,25				