

Day 22 – Assignment

22-Feb,2022

By [Manoj Karnatapu](#) - NBHealthCareTechnologies

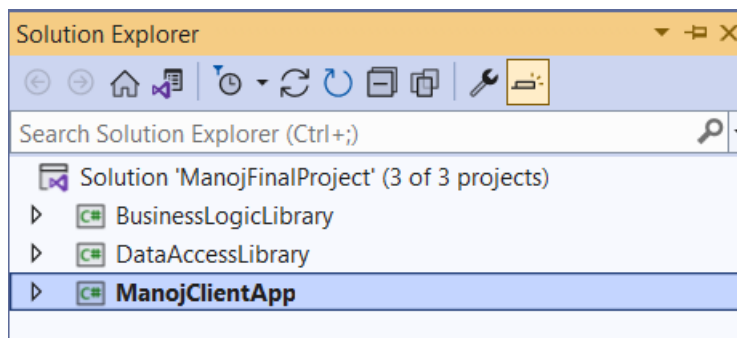


Assignment Project

Write a C# Code for Employee Management Application. For Adding Employee, Search Employee & Display All Employees.

Code

Creating a Solution name as “**ManojFinalProject**” Which Consists of 3 Layers of UI/Presentation Layer(**ManojClientApp** {ConsoleApp}).
Business Logic Layer (**BusinessLogicLibrary** {Class Library}).
Data Access Layer (**DataAccessLibrary** {Class Library}).



DataAccessLibrary

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

// Author : Manoj.Karnatapu
// Purpose : Creating a DAL for Employee Management Application.
// For Reference, Check ManojFinalProject in the same Repository.

namespace DataAccessLibrary
{
    public static class EmployeeDAL
    {
        public static string filePath = @"D:\C#\GitHub\ManojFinalProject\Employees.txt";
    }
}
```

```

empAge) public static bool AddEmployee(int empId, string empName, int empSalary, int
{
    try
    {
        string textcontent = string.Concat(empId, ',', empName, ',', empSalary,
',', empAge);
        File.AppendAllText(filePath, textcontent + Environment.NewLine);

        return true;
    }
    catch (Exception)
    { return false; }
}

public static List<String> GetEmployeesById(int id)
{
    var allEmployees = File.ReadAllLines(filePath);
    //bool isFound;

    List<string> employeeFound = new List<string>();

    foreach(string employee in allEmployees)
    {
        var empDetails = employee.Split(',');

        if(Convert.ToInt32(empDetails[0])==id)
        {
            //isFound = true;
            employeeFound.Add(employee);
            break;
        }
    }
    return employeeFound;
}

public static List<String> GetEmployeesByName(string name)
{
    var allEmployees = File.ReadAllLines(filePath);
    List<String> employeeFound = new List<string>();

    foreach (string employee in allEmployees)
    {
        var empDetails = employee.Split(',');
        if(empDetails[1].Contains(name))
        {
            employeeFound.Add(employee);
        }
    }
    return employeeFound;
}

public static string[] GetAllEmployees()
{
    var allEmployees = File.ReadAllLines(filePath);
    return allEmployees;
}
}

```

BusinessLogicLibrary

```

using System;
using System.Collections.Generic;
using DataAccessLibrary;

```

```

// Author : Manoj.Karnatapu
// Purpose : Creating a BLL for Employee Management Application.

// For Reference, Check ManojFinalProject in the same Repository.

namespace BusinessLogicLibrary
{
    public class EmployeeBLL
    {
        public static bool AddEmployee(int empId, string empName, int empSalary, int
empAge)
        {
            // Todo Validations

            var result = EmployeeDAL.AddEmployee(empId, empName, empSalary, empAge);
            return result;
        }
        public static List<String> GetEmployeesById(int id)
        {
            var result = EmployeeDAL.GetEmployeesById(id);
            return result;
        }
        public static List<String> GetEmployeesByName(string name)
        {
            var result = EmployeeDAL.GetEmployeesByName(name);
            return result;
        }
        public static string[] GetAllEmployees()
        {
            var result = EmployeeDAL.GetAllEmployees();
            return result;
        }
    }
}

```

ManojClientApp(Console App)

```

using System;
using BusinessLogicLibrary;

// Author : Manoj.Karnatapu
// Purpose : Creating a Client App for Employee Management Application.

// For Reference, Check ManojFinalProject in the same Repository.

namespace ManojClientApp
{
    public class ManojClientApp
    {
        public static void Main(string[] args)
        {
            string choice;
            int ch;
            do
            {
                Console.WriteLine("\n\n----- Welcome To Employee Management
application By Manoj.Karnatapu ----- \n");
                Console.WriteLine("\n\t -----***** Employee Management Application
*****-----\n\n");
                Console.WriteLine("\t 1. Add Employee Details");
                Console.WriteLine("\t 2. Search Employee By Id");
                Console.WriteLine("\t 3. Search Employee By Name");
                Console.WriteLine("\t 4. Display All Employee Details");

                Console.Write("\n Enter Your Choice : ");
                ch = Convert.ToInt32(Console.ReadLine());
            }
            while (ch < 4);
        }
    }
}

```

```

        switch (ch)
        {
            case 1:
                AddEmployee();
                break;
            case 2:
                SearchEmployeeById();
                break;
            case 3:
                SearchEmployeeByName();
                break;
            case 4:
                DisplayAllEmployees();
                break;
            default:
                Console.WriteLine("Invalid Option");
                break;
        }
        Console.Write("\nDo You Wish to Continue to Main Menu (y/n): ");
        Console.ForegroundColor = ConsoleColor.Yellow;
        choice = Console.ReadLine();
        Console.ResetColor();
    } while (choice == "y" || choice == "Y");

    Console.ForegroundColor = ConsoleColor.Cyan;
    Console.WriteLine("\n Thank You For Using Manoj_Client_Application ");
    Console.ForegroundColor = ConsoleColor.DarkGreen;
    Console.WriteLine("\n \t *** Visit Again *** ");
    Console.ResetColor();

    Console.ReadLine();
}

public static void AddEmployee()
{
    int id, salary, age;
    string name;

    Console.Write("\nEnter the Employee Id : ");
    id = Convert.ToInt32(Console.ReadLine());
    Console.Write("\nEnter the Employee Name : ");
    name = Console.ReadLine();
    Console.Write("\nEnter the Employee Salary : ");
    salary = Convert.ToInt32(Console.ReadLine());
    Console.Write("\nEnter the Employee Age : ");
    age = Convert.ToInt32(Console.ReadLine());

    var result = EmployeeBLL.AddEmployee(id, name, salary, age);

    if (result)
    {
        Console.ForegroundColor = ConsoleColor.Green;
        Console.WriteLine("\n Employee Details Saved Succesfully");
        Console.ResetColor();
    }
    else
    {
        Console.ForegroundColor = ConsoleColor.Red;
        Console.WriteLine("\n Error occured During Saving The Given Data, Please
Try Again");
        Console.ResetColor();
    }
}

public static void SearchEmployeeById()
{
    int id;

```

```

        Console.WriteLine("\nEnter any ID to Search Employee_Details_By_ID : ");
        id = Convert.ToInt32(Console.ReadLine());
        var result = EmployeeBLL.GetEmployeesById(id);

        if(result.Count == 0)
        {
            Console.ForegroundColor = ConsoleColor.Red;
            Console.WriteLine("\nNo Records, Found With This ID");
            Console.ResetColor();
        }
        else
        {
            Console.WriteLine("\n The Employee Details For Given Id : \n");
            Console.ForegroundColor = ConsoleColor.Green;
            result.ForEach(e => Console.WriteLine("\t{0}", e));
            Console.ResetColor();
        }
    }

    public static void SearchEmployeeByName()
    {
        string name;
        Console.WriteLine("\nEnter any NAME, To Search_Employee_Details_By_Name : ");
        name = Console.ReadLine();

        var result = EmployeeBLL.GetEmployeesByName(name);

        if( result.Count == 0)
        {
            Console.ForegroundColor = ConsoleColor.Red;
            Console.WriteLine("\nNo Employee Details, Found with Given Name '{0}'
", name);
            Console.ResetColor();
        }
        else
        {
            Console.WriteLine("\n      The Employees, whose names Consists '{0}' are :
\n", name);
            Console.ForegroundColor = ConsoleColor.Green;
            result.ForEach(emp => Console.WriteLine("\t{0}", emp));
            Console.ResetColor();
        }
    }

    public static void DisplayAllEmployees()
    {
        var employees = EmployeeBLL.GetAllEmployees();
        Console.ForegroundColor = ConsoleColor.Magenta;
        Console.WriteLine("\n\n\t\t\t ---- Displaying All Employee Details in the
Record ----");
        Console.ForegroundColor = ConsoleColor.Blue;
        foreach (var employee in employees)
        {
            Console.WriteLine(employee);
        }
        Console.ResetColor();
    }
}

```

Output

----- Welcome To Employee Management application By Manoj.Karnatapu -----

-----***** Employee Management Application *****-----

1. Add Employee Details
2. Search Employee By Id
3. Search Employee By Name
4. Display All Employee Details

Enter Your Choice : 1

Enter the Employee Id : 109

Enter the Employee Name : VarunKumar

Enter the Employee Salary : 27999

Enter the Employee Age : 24

Employee Details Saved Succesfully

Do You Wish to Continue to Main Menu (y/n): y

----- Welcome To Employee Management application By Manoj.Karnatapu -----

-----***** Employee Management Application *****-----

1. Add Employee Details
2. Search Employee By Id
3. Search Employee By Name
4. Display All Employee Details

Enter Your Choice : 2

Enter any ID to Search Employee_Details_By_ID : 101

The Employee Details For Given Id :

101,ManojKarnatapu,30000,25

Do You Wish to Continue to Main Menu (y/n): Y

----- Welcome To Employee Management application By Manoj.Karnatapu -----

-----***** Employee Management Application *****-----

1. Add Employee Details
2. Search Employee By Id
3. Search Employee By Name
4. Display All Employee Details

Enter Your Choice : 3

Enter any NAME, To Search_Employee_Details_By_Name : Kumar

The Employees, whose names Consists 'Kumar' are :

103,PavanKumar,26000,26
105,ArunKumar,23000,27
106,ManojKumar,28000,27
109,VarunKumar,27999,24

Do You Wish to Continue to Main Menu (y/n): y

----- Welcome To Employee Management application By Manoj.Karnatapu -----

-----***** Employee Management Application *****-----

1. Add Employee Details
2. Search Employee By Id
3. Search Employee By Name
4. Display All Employee Details

Enter Your Choice : 4

---- Displaying All Employee Details in the Record ----

101,ManojKarnatapu,30000,25
102,ManojYekolla,26000,24
103,PavanKumar,26000,26
104,ViharDasari,20000,26
105,ArunKumar,23000,27
106,ManojKumar,28000,27
109,VarunKumar,27999,24

Do You Wish to Continue to Main Menu (y/n): N

Thank You For Using Manoj_Client_Application

*** Visit Again ***

Press any key to continue . . . |