FINAL PROJECT

C# PROGRAMING

FEBRUARY 23, 2022
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CODE

Data Accesses Layer

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

namespace Data_access_layer
{
    public class Class1
    {
        public static string FilePath = "c:\\MyProject\\EmpDetails.txt";



        public static bool Add_Employee(int EmpId, string EmpName, int
EmpSalary, int EmpAge)
        {
            var str = string.Concat(EmpId, ", ", EmpName, ", ", EmpSalary, ",
", EmpAge);
            File.AppendAllText(FilePath, str + Environment.NewLine);
            Console.WriteLine("Employee Entered!");
            return true;
        }

        public static List<string> Search_emp_Detail(int Id)
        {
            var EmpList = new List<string>();
            StreamReader sr = new StreamReader(FilePath);
            string Emp_Details = sr.ReadLine();
            while (Emp_Details != null)
            {
                var EmpId_split = Emp_Details.Split(',');

                if( Convert.ToInt32(EmpId_split[0]) == Id)
                {
                    EmpList.Add(Emp_Details);
                    break;
                }

                Emp_Details = sr.ReadLine();
            }

            sr.Close();

            return EmpList;

        }
        public static List<string> EmpDetailsByName(string name )
        {
            var EmpNames = new List<string>();
            StreamReader sr = new StreamReader(FilePath);
            string Emp_Details = sr.ReadLine();
            while (Emp_Details != null)
            {
                var EmpId_split = Emp_Details.Split(',');

                if (EmpId_split[1].Contains(name))
                {
                    EmpNames.Add(EmpId_split[1]);
                    break;
```

```
            }

                Emp_Details = sr.ReadLine();
            }
            sr.Close();
            return EmpNames;
        }
        public static List<string> AllEmpDetails()
        {
            var vs = new List<string> {};
            StreamReader sr = new StreamReader(FilePath);
            string AllEmp = sr.ReadLine();
            while(AllEmp != null)
            {
                vs.Add(AllEmp);
                AllEmp = sr.ReadLine();
            }
            sr.Close();
            return vs;
        }


    }
}
```

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

namespace Bussiness_Logic_Library
{
    public class BusinessLogic
    {
        public static bool AddEmp()
        {
            //Check is it repeated or it is negative



            var st = Class1.FilePath;

        iSitnegativeOrRepeated:
            int ID_Number;
            Console.WriteLine("Enter the ID Number:");
            int EmpId = Convert.ToInt32(Console.ReadLine());
            StreamReader sr = new StreamReader(st);

            string line = sr.ReadLine();
            bool verify = false;
            while (line != null)
            {
                var lineSplit = line.Split(',');
                if (lineSplit[0] == EmpId.ToString())
                {
                    verify = true;
                    break;
                }
                else
                {
                    line = sr.ReadLine();
```

```csharp
                }
            }
            sr.Close();

            if (EmpId <= 0 || verify)
            {
                Console.WriteLine("Check the Entered Number Wheather its above
zero and Id Number Not Repeated");
                goto iSitnegativeOrRepeated;
            }
            else
            {
                ID_Number = EmpId;
            }
        //Check the Length of The name

        NameLenCheck:
            string Emp_Name;
            Console.WriteLine("Enter name:");
            string empName = Console.ReadLine();
            if (empName.Length < 3)
            {
                Console.WriteLine("Enter name Atleast of 3 characters");
                goto NameLenCheck;
            }
            else
            {
                Emp_Name = empName;
            }
        //Salary Check
        EmpSalaryCheck:
            int Emp_Salary;
            Console.WriteLine("Enter Salary");
            int empSalary = Convert.ToInt32(Console.ReadLine());

            if (empSalary < 12000)
            {
                Console.WriteLine("salary should be greater than 12000");
                goto EmpSalaryCheck;
            }
            else
            {
                Emp_Salary = empSalary;
            }
        //age Check
        EmpageCheck:
            int Emp_Age;
            Console.WriteLine("Enter Age");
            int empAge = Convert.ToInt32(Console.ReadLine());
            if (empAge <= 18 || empAge >= 58)
            {
                Console.WriteLine("Check your age it should be more than 18 and
less than 58");
                goto EmpageCheck;
            }
            else
            {
                Emp_Age = empAge;
            }
            var result = Class1.Add_Employee(ID_Number, Emp_Name, Emp_Salary,
Emp_Age);

            return result;
        }
```

```csharp
        public static List<string> Search_EmpDetailsById(int empId)
        {
            var empDetailsId = Class1.Search_emp_Detail(empId);
            return empDetailsId;
        }
        public static List<string> Search_EmpDetailsByName(string empName)
        {
            var empDetailsName = Class1.EmpDetailsByName(empName);
            return empDetailsName;
        }
        public static List<string> DisplayEmployeeDetails()
        {
            var empDetails = Class1.AllEmpDetails();
            return empDetails;
        }



    }
}
```

```csharp
using System;
using Bussiness_Logic_Library;

namespace ClientApp
{
    internal class Program
    {
        public static void AddEmployee()
        {
            var r = BusinessLogic.AddEmp();
             Console.WriteLine(r);
             Console.WriteLine("Added");
        }
        public static void SearchEmployeeById()
        {
            int IDnumber;
            Console.Write("Enter employee ID: ");
            IDnumber = int.Parse(Console.ReadLine());
            var DetailEmp = BusinessLogic.Search_EmpDetailsById(IDnumber);
            if(DetailEmp.Count==0)
            {
                Console.WriteLine($"No Employee exists on this {IDnumber}");
            }
            else
            {
                DetailEmp.ForEach(x => Console.WriteLine(x));
            }
        }
        public static void SearchEmployeeByName()
        {
            string EmpNAME;
            Console.Write("Enter employee Name: ");
            EmpNAME = Console.ReadLine();
            var EMPdetails = BusinessLogic.Search_EmpDetailsByName(EmpNAME);
            if(EMPdetails.Count==0)
            {
                Console.WriteLine($"No Employee exists on this {EmpNAME}");
            }
```

```csharp
            else
            {
                EMPdetails.ForEach(x => Console.WriteLine(x));
            }
        }
        public static void DisplayEmployee()
        {
            var empDetails = BusinessLogic.DisplayEmployeeDetails();

            foreach (var emp in empDetails)
            {
                Console.WriteLine(emp);
            }

        }
        static void Main(string[] args)
        {


            Console.ForegroundColor = ConsoleColor.Blue;
            Console.WriteLine
                (@"


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                ************************888888 TO EMPLOYEE MANAGEMENT
APPLICATION 888888************************
                ");
            Console.ResetColor();
            int c;
            string d;
            do
            {
                Console.ForegroundColor = ConsoleColor.DarkMagenta;
                Console.WriteLine
                    (@"
                ------------------------------------------------------
                |           Employee Management Application          |
                ------------------------------------------------------
```

```csharp
                    SELECT THE FOLLOWING OPTIONS BELOW
                    1. Add Employee Details
                    2. Search Employee Details By Id
                    3. Search Employee Details By Name
                    4. Display All Employee Details
                ");
                Console.ResetColor();
                Console.Write("\nEnter your Choice: ");
                c = Convert.ToInt32(Console.ReadLine());
                switch (c)
                {
                    case 1:
                        AddEmployee();
                        break;
                    case 2:
                        SearchEmployeeById();
                        break;
                    case 3:
                        SearchEmployeeByName();
                        break;
                    case 4:
                        DisplayEmployee();
                        break;
                    default:
                        Console.WriteLine("Enter valid option");
                        break;
                }
                Console.Write("\nDo you want to continue(y/n): \n");
                d = Console.ReadLine();
            }
            while (d.Equals("y"));
            Console.ReadLine();
        }
    }
}
```

Enter Employee Data

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        ***********************888888 TO EMPLOYEE MANAGEMENT APPLICATION 888888***********************


        ---------------------------------------------------
        |          Employee Management Application          |
        ---------------------------------------------------
              SELECT THE FOLLOWING OPTIONS BELOW
              1. Add Employee Details
              2. Search Employee Details By Id
              3. Search Employee Details By Name
              4. Display All Employee Details

Enter your Choice: 1
Enter the ID Number:
1
Check the Entered Number Wheather its above zero and Id Number Not Repeated
Enter the ID Number:
5
Enter name:
sa
Enter name Atleast of 3 characters
Enter name:
sam
Enter Salary
11000
salary should be greater than 12000
Enter Salary
14000
Enter Age
15
Check your age it should be more than 18 and less than 58
Enter Age
25
Employee Entered!
```

Search By ID

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************************888888 TO EMPLOYEE MANAGEMENT APPLICATION 888888************************


         ----------------------------------------------------
         |          Employee Management Application          |
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            SELECT THE FOLLOWING OPTIONS BELOW
            1. Add Employee Details
            2. Search Employee Details By Id
            3. Search Employee Details By Name
            4. Display All Employee Details

Enter your Choice: 2
Enter employee ID: 3
3, ram, 14000, 35
```

Search By Name

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************************888888 TO EMPLOYEE MANAGEMENT APPLICATION 888888************************


         ----------------------------------------------------
         |          Employee Management Application          |
         ----------------------------------------------------
            SELECT THE FOLLOWING OPTIONS BELOW
            1. Add Employee Details
            2. Search Employee Details By Id
            3. Search Employee Details By Name
            4. Display All Employee Details

Enter your Choice: 3
Enter employee Name: tej
 teja
```

Display all Employees

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*************************888888 TO EMPLOYEE MANAGEMENT APPLICATION 888888*************************


          ----------------------------------------------------
          |           Employee Management Application         |
          ----------------------------------------------------
            SELECT THE FOLLOWING OPTIONS BELOW
            1. Add Employee Details
            2. Search Employee Details By Id
            3. Search Employee Details By Name
            4. Display All Employee Details

Enter your Choice: 4
1, bhanu, 13000, 24
2, teja, 25000, 34
3, ram, 14000, 35
4, jan, 20000, 24
5, sam, 14000, 25
```

***************************** THANK YOU ******************************