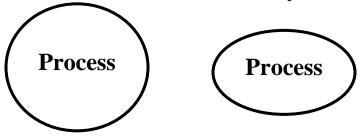
**3.5 DATAFLOW DIAGRAM:-** Dataflow Diagram is a graphical representation of flow of data in an information system. It is capable of depicting incoming data flow, outgoing data flow and stored data. The DFD does not mention anything about how data flows through the system.

There is a prominent difference between the DFD and Flowchart. The Flowchart depicts flow of control in program modules. DFD depict flow of data in the system at various levels. DFD does not contain any control or branch elements. The different component of Dataflow Diagram is explained below:-

**Entities**:- Entities are source and destination of information data. Entities are represented by a rectangles with their respective names.



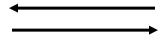
**Proces**s:- Activities and action taken on the data are represented by Circle or oval Shapes.



**Data Storage:-** There are two variants of data storage- It can either be represented as a rectangle with absence of both smaller sides or as an open- sided rectangle with only one side missing.



**Data Flow:-** Movement of data is shown by pointed arrows. Data movement is shown from the base of arrow as its source towards head of the arrow as destination.



#### 3.5.1 CONTEXT DIAGRAM

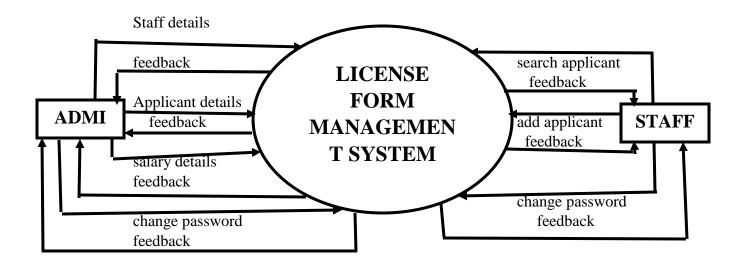


Fig:- DFD Level 0: Context diagram

#### 3.5.2 APPLICATION PROCESS: Admin

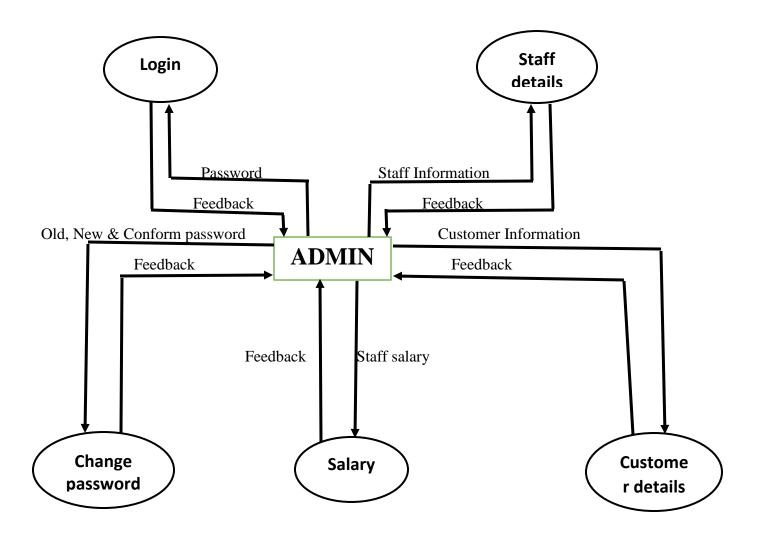


Fig:- DFD Level 1.0:- Application Process: Administrator

#### 3.5.3 ADMIN LOGIN SYSTEM

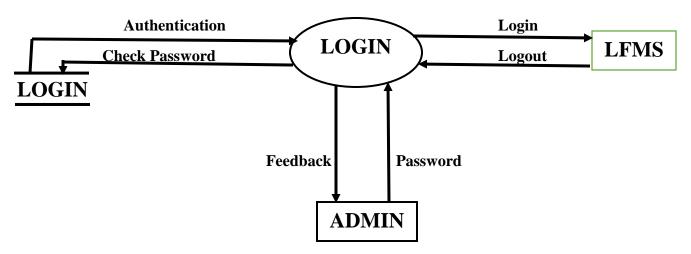


Fig:- DFD Level 1.1:- Function Process:-Admin Login System

#### 3.5.4 STAFF DETAILS

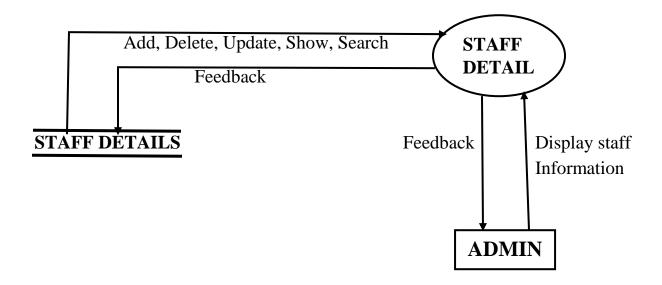


Fig:- DFD Level 1.2:- Function Process: Staff Details

#### 3.5.5 APPLICANT DETAILS

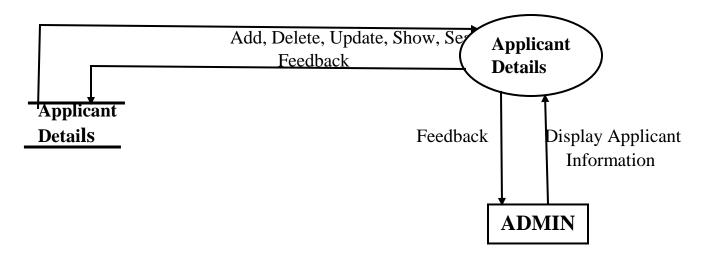


Fig:- DFD Level:- 1.3:- Function Process: Applicant Details

#### 3.5.6 SALARY DETAILS

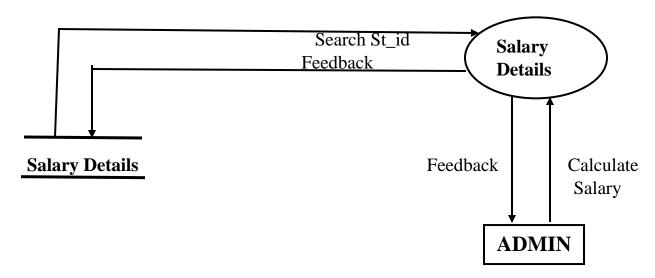


Fig:- DFD Level:- 1.4:- Function Process : Salary Details

#### 3.5.7 SALARY REPORT

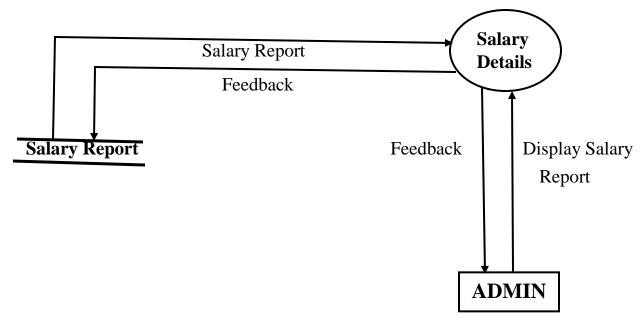


Fig:- DFD Level:- 1.5:- Function Process : Salary Report

#### 3.5.8 CHANGE PASSWORD

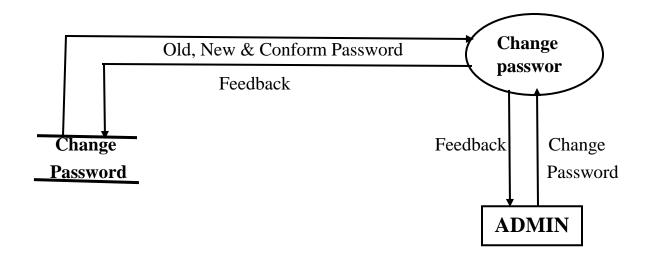


Fig:- DFD Level:- 1.6:- Function Process: Change Password

#### 3.5.9 APPLICATION PROCESS: Staff

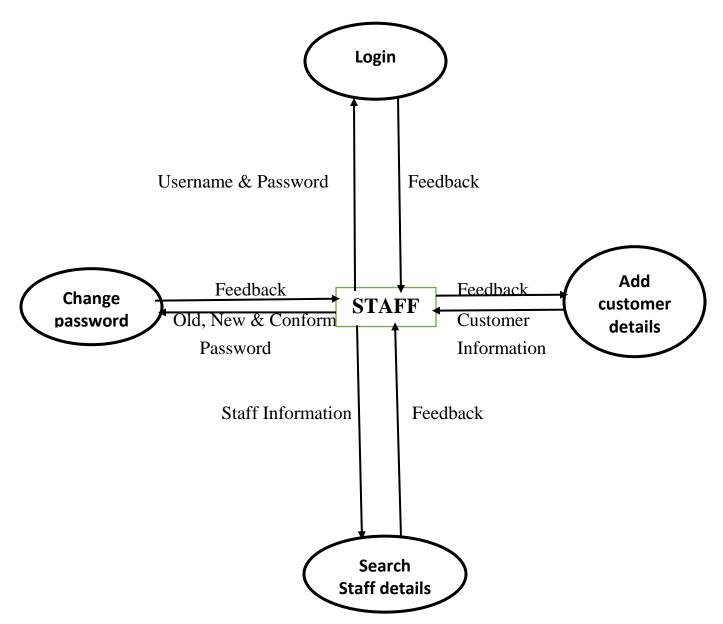


Fig:- DFD Level 2.0:- Application Process: Staff

#### 3.5.10 STAFF LOGIN SYSTEM

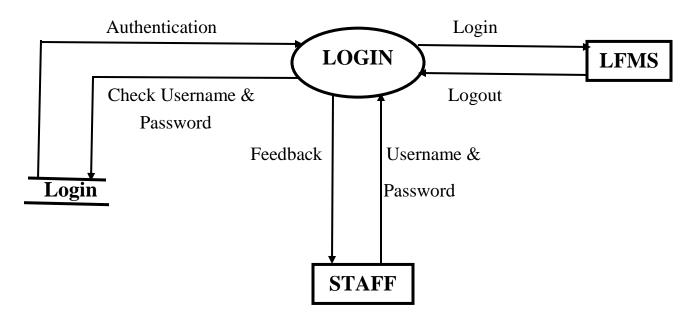


Fig:- DFD Level 2.1:- Function Process:-Staff Login System

#### 3.5.11 ADD CUSTOMER DETAILS

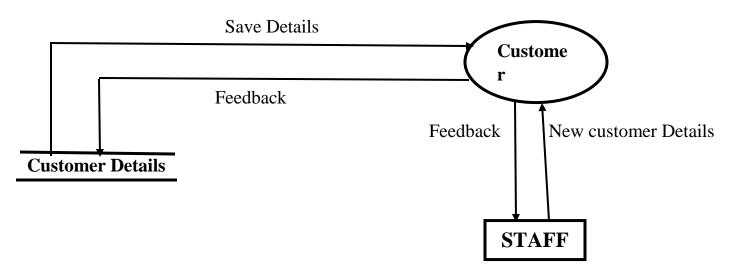


Fig:- DFD Level 2.2:- Function Process:-Add Customer Details

#### 3.5.12 SEARCH CUSTOMER DETAILS

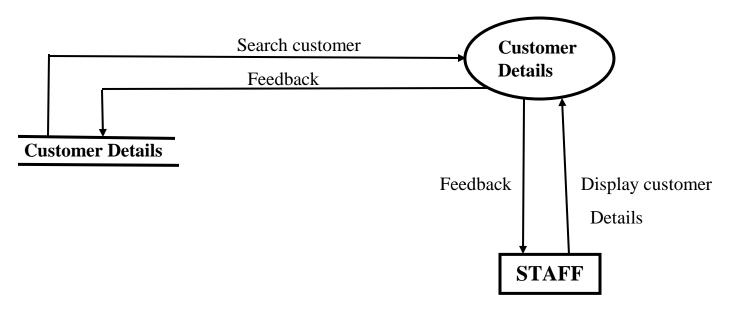


Fig:- DFD Level 2.3:- Function Process:-Search Customer Details
3.5.13 CHANGE PASSWORD

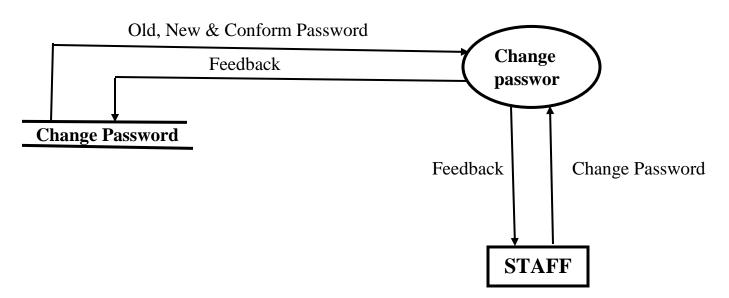


Fig:- DFD Level 2.4:- Function Process:-Change Password

### FORM DESIGN

#### 4.1 Welcome form



Fig:- Welcome Form

#### 4.2 LoginType Form



Fig:- Logintype Form

#### 4.3 Admin Login Form

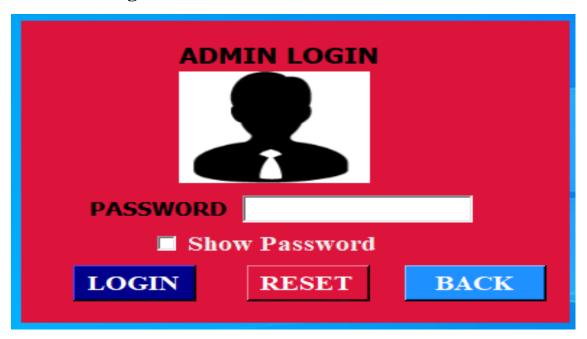


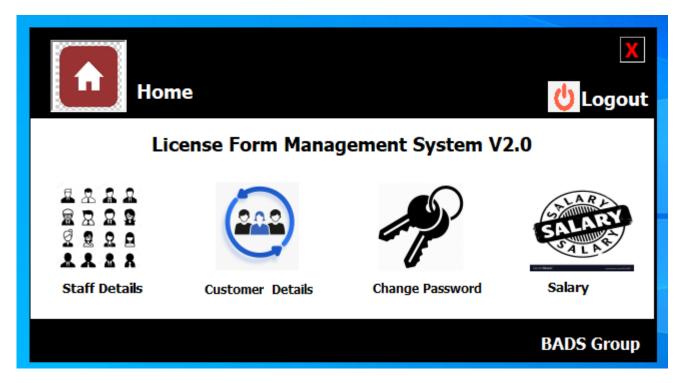
Fig:- Admin Login Form

#### 4.4 Staff Login Form



Fig:- Staff Login Form

#### 4.5 Admin Home Form



**Fig:- Admin Home Form** 

#### 4.6Staff Home Form

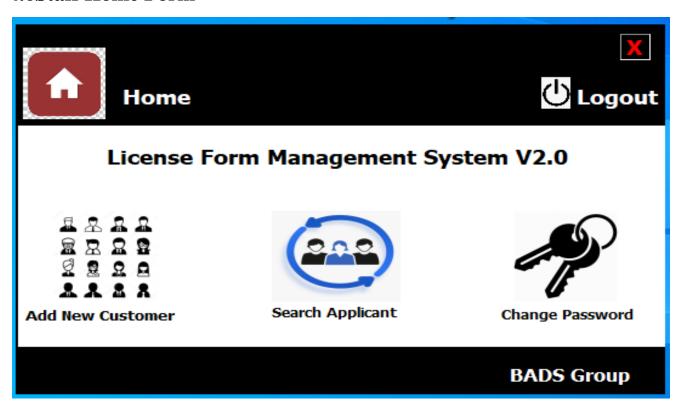


Fig: - Staff Home Form

#### 4.7 Staff Details Form

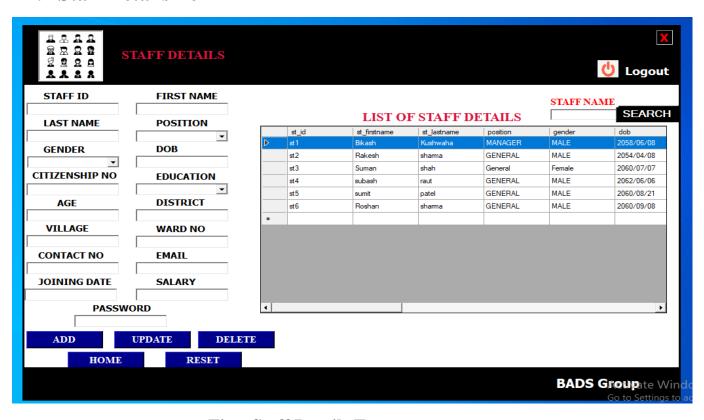


Fig:- Staff Details Form

#### 4.8 Change Admin Password Form

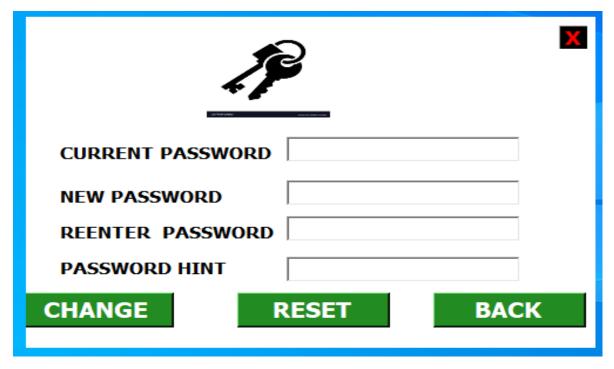
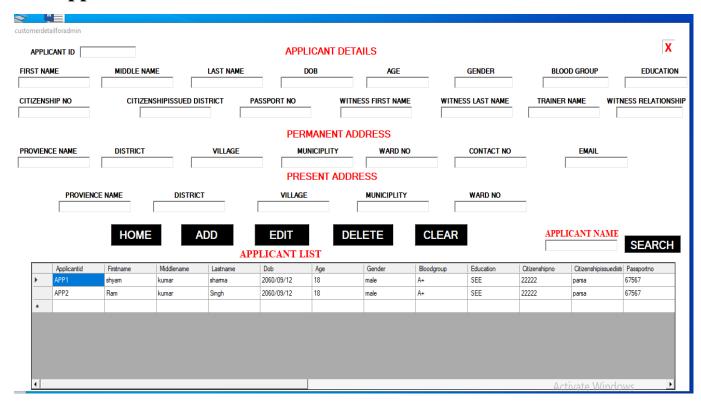


Fig:- Change Admin Password Form

#### 4.9 Applicant Details Form



**Fig:- Applicant Details Form** 

#### 4.10 Search Applicant Details Form

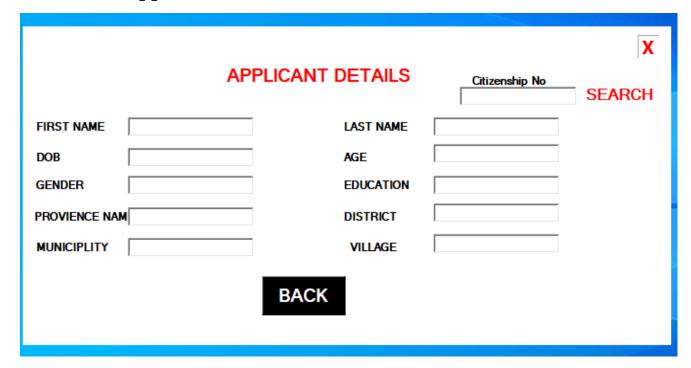


Fig:- Search Applicant Details Form

#### **4.11 Change Staff Password Form**

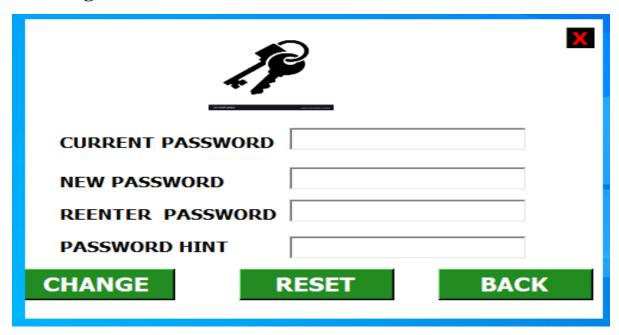


Fig:- Change Staff Password Form

#### 4.12 Salary Form

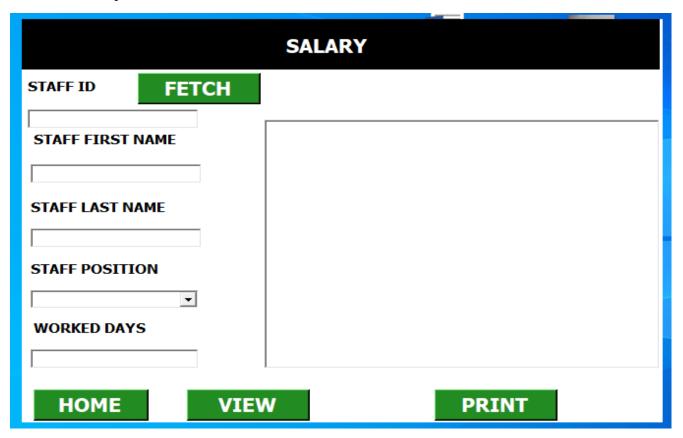


Fig:-Salary Form

#### 4.13 Add Applicant Details Form

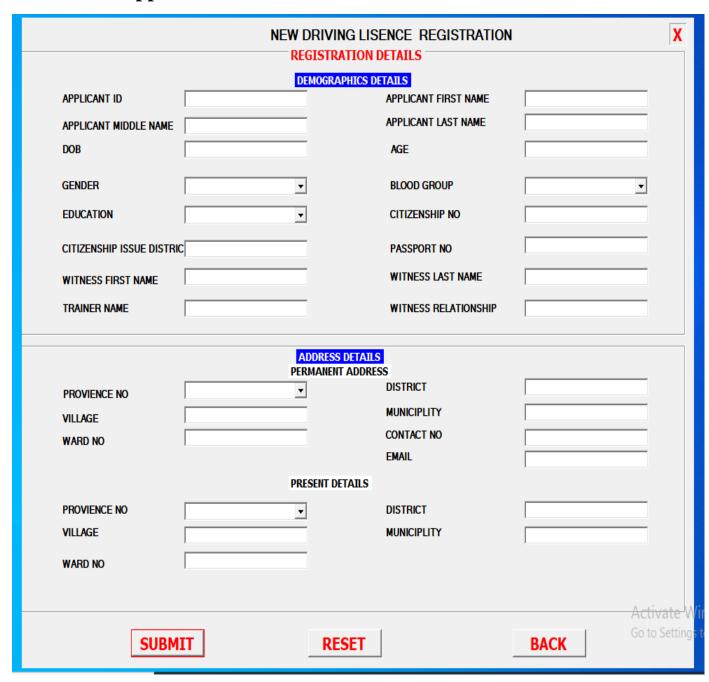


Fig:- Add applicant Details Form

## DATABASE TABLE DESIGN

#### **5.1 Admin Login Table**

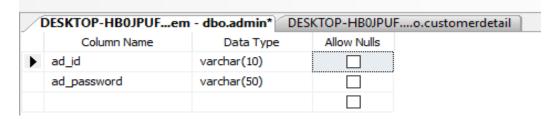


Fig:-Admin Login Table

#### **5.2 Staff Details Table**

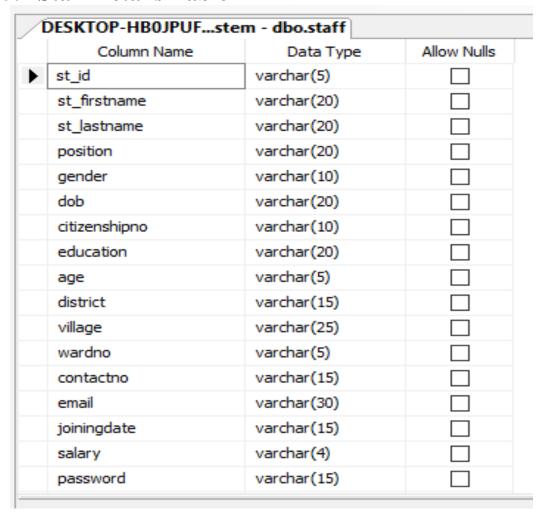


Fig:- Staff Details Table

#### **5.3** Customer Details Table

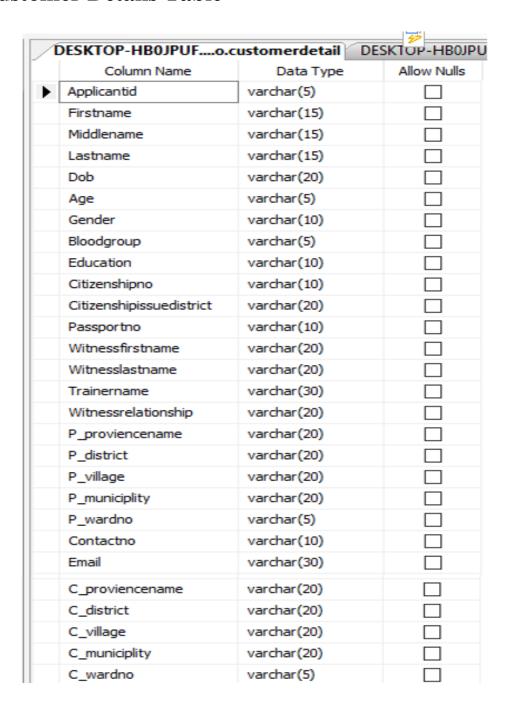


Fig:-Customer Details Table

## **CODING**

#### **6.1 WELCOME**

```
Private Sub Timer1_Tick(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Timer1.Tick
        ProgressBar1.Increment(1)
        Dim per As String
        per = Convert.ToString(ProgressBar1.Value)
        perc.Text = per + "%"
        If ProgressBar1.Value = 100 Then
            Me.Hide()
            Dim obj = New login
            obj.Show()
            Timer1.Enabled = False
        End If
    End Sub
    Private Sub welcome_Load(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles MyBase.Load
        Timer1.Start()
    End Sub
```

#### **6.2 ADMIN LOGIN**

```
Imports System.Data.SqlClient
Imports System.Data.Sql
    Private Sub btnlogin Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles btnlogin.Click
        Dim con As New SqlConnection
        Dim cmd As New SqlCommand
        Dim msg As New Integer
        Dim Password As String
            con.ConnectionString = "data source=localhost; Initial
catalog=licenseformmanagementsystem; Integrated security=true"
            con.Open()
            cmd.Connection = con
            cmd.CommandText = "Select * from admin"
            Dim ird As SqlDataReader = cmd.ExecuteReader()
            If ird.HasRows Then
                While ird.Read()
                    Password = ird("ad_password").ToString
                    If Password = txtpassword.Text Then
                        MessageBox.Show("Logged in successfully as Admin", "",
MessageBoxButtons.OK, MessageBoxIcon.Information)
                        adminhome.Show()
                        Me.Hide()
                    Else
```

#### 6.3 STAFF IOGIN

```
Imports System.Data.SqlClient
Imports System.Data.Sql
    Private Sub Button1 Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles btnlogin.Click
        Dim con As New SqlConnection
        Dim cmd As New SqlCommand
        Dim msg As New Integer
        Dim Password As String
        Dim staffname As String
        Try
            con.ConnectionString = "data source=localhost; Initial
catalog=licenseformmanagementsystem; Integrated security=true"
            con.Open()
            cmd.Connection = con
            cmd.CommandText = "select st_firstname,password from staff
where(st_firstname='" & txtstaffname.Text & "') And (password='" & txtpassword.Text &
"')"
            Dim ird As SqlDataReader = cmd.ExecuteReader()
            If ird.HasRows Then
                While ird.Read()
                    staffname = ird("st_firstname").ToString
                    Password = ird("password").ToString
                    If staffname = txtstaffname. Text And Password = txtpassword. Text
Then
                        MessageBox.Show("You are logged sucessfully " & staffname,
"", MessageBoxButtons.OK, MessageBoxIcon.Information)
                        staffhome.Show()
                        Me.Hide()
                    End If
                End While
            Else
                MessageBox.Show("You have entered wrong Username and Password",
"Authentication", MessageBoxButtons.OK, MessageBoxIcon.Exclamation)
            End If
```

```
Catch ex As Exception
    MessageBox.Show("Error while connecting sql server", ex.Message)
Finally
    con.Close()
End Try
```

#### **6.4 STAFF DETAILS FORM**

```
Imports System.Data.SqlClient
Imports System.Data.Sql

Public Class staffdetail
    Dim con As New SqlConnection
    Dim cmd As New SqlCommand
```

#### **6.4.1 INSERT BUTTON**

```
Private Sub Button4 Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles btnadd.Click
         cmd = con.CreateCommand()
         cmd.CommandType = CommandType.Text
         cmd.CommandText = "insert into
staff(st id,st firstname,st lastname,position,gender,dob,citizenshipno,education,age,
district, village, wardno, contactno, email, joiningdate, salary, password) values('" +
txtstaffid.Text + "','" + txtfirstname.Text + "','" + txtlastname.Text + "','" +
cboposition.Text + "','" + cbogender.Text + "','" + txtdob.Text + "','" +
txtcitizenshipno.Text + "','" + cboeducation.Text + "','" + txtage.Text + "','" +
txtdistrict.Text + "','" + txtvillage.Text + "','" + txtwardno.Text + "','" +
txtcontactno.Text + "','" + txtemail.Text + "','" + txtjoiningdate.Text + "','" +
txtsalary.Text + "','" + txtpassword.Text + "')"
         cmd.ExecuteNonQuery()
         disp_data()
         MessageBox.Show("New staff is Added successfully")
      End Sub
```

#### 6.4.2 FUNCTION

```
Public Sub disp_data()
        cmd = con.CreateCommand()
        cmd.CommandType = CommandType.Text
        cmd.CommandText = "select * from staff"
        cmd.ExecuteNonQuery()
        Dim dt As New DataTable()
        Dim da As New SqlDataAdapter(cmd)
        da.Fill(dt)
        DataGridView1.DataSource = dt
End Sub
```

#### **6.4.3 DATABASE CONNECTION**

#### 6.4.4 ROWS SELECTION FROM DATAGRIDVIEW

```
Private Sub DataGridView1 CellMouseClick(ByVal sender As System.Object, ByVal e As
System.Windows.Forms.DataGridViewCellMouseEventArgs) Handles
DataGridView1.CellMouseClick
        If e.RowIndex >= 0 Then
            Dim row As DataGridViewRow = DataGridView1.Rows(e.RowIndex)
            txtstaffid.Text = row.Cells(0).Value.ToString
            txtfirstname.Text = row.Cells(1).Value.ToString
            txtlastname.Text = row.Cells(2).Value.ToString
            cboposition.Text = row.Cells(3).Value.ToString
            cbogender.Text = row.Cells(4).Value.ToString
            txtdob.Text = row.Cells(5).Value.ToString
            txtcitizenshipno.Text = row.Cells(6).Value.ToString
            cboeducation.Text = row.Cells(7).Value.ToString
            txtage.Text = row.Cells(8).Value.ToString
            txtdistrict.Text = row.Cells(9).Value.ToString
            txtvillage.Text = row.Cells(10).Value.ToString
            txtwardno.Text = row.Cells(11).Value.ToString
            txtcontactno.Text = row.Cells(12).Value.ToString
            txtemail.Text = row.Cells(13).Value.ToString
            txtjoiningdate.Text = row.Cells(14).Value.ToString
            txtsalary.Text = row.Cells(15).Value.ToString
            txtpassword.Text = row.Cells(16).Value.ToString
        End If
    End Sub
```

#### **6.4.5 UPDATE BUTTON**

```
cmd.CommandText = "update staff set st firstname='" + txtfirstname.Text +
"',st_lastname='" + txtlastname.Text + "',position='" + cboposition.Text +
"',gender='" + cbogender.Text + "',dob='" + txtdob.Text + "',citizenshipno='" +
txtcitizenshipno.Text + "',education='" + cboeducation.Text + "',age='" + txtage.Text
+ "',district='" + txtdistrict.Text + "',village='" + txtvillage.Text + "',wardno='"
+ txtwardno.Text + "',contactno='" + txtcontactno.Text + "',email='" + txtemail.Text
+ "',joiningdate='" + txtjoiningdate.Text + "',salary='" + txtsalary.Text +
"',password='" + txtpassword.Text + "' where st_id='" & txtstaffid.Text & "'"
        cmd.ExecuteNonQuery()
        disp data()
    End Sub
 6.4.6 DELETE BUTTON
    Private Sub btndelete_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles btndelete.Click
        If con.State = ConnectionState.Open Then
            con.Close()
```

```
con.Close()

End If
con.Open()
cmd = con.CreateCommand()
cmd.CommandType = CommandType.Text
```

cmd.CommandText = "delete from staff where st\_id='" + txtstaffid.Text + "'"
cmd.ExecuteNonOuery()

disp\_data()
End Sub

#### 6.4.7 RESET BUTTON

```
Private Sub btnreset_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles btnreset.Click
        txtstaffid.Clear()
        txtfirstname.Clear()
        txtlastname.Clear()
        cboposition.Text = ""
        cbogender.Text = ""
        txtdob.Clear()
        txtcitizenshipno.Clear()
        cboeducation.Text = ""
        txtage.Clear()
        txtdistrict.Clear()
        txtvillage.Clear()
        txtwardno.Clear()
        txtcontactno.Clear()
        txtemail.Clear()
        txtjoiningdate.Clear()
        txtsalary.Clear()
```

End Sub

#### 6.5 SEARCH

```
Private Sub btnsearch Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles btnsearch.Click
        cmd = con.CreateCommand()
        cmd.CommandType = CommandType.Text
        cmd.CommandText = "select * from staff where st_firstname='" & txtsearch.Text
& "'"
        cmd.ExecuteNonQuery()
        Dim dt As New DataTable()
        Dim da As New SqlDataAdapter(cmd)
        da.Fill(dt)
    DataGridView1.DataSource = dt
    End Sub
End Class
 6.6 CHANGE PASSWORD
   Private Sub Button2 Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button2.Click
        Dim con As New SqlConnection
        Dim cmd As New SqlCommand
        Dim Password As String
        Dim id As String
            con.ConnectionString = "Data Source=localhost; Initial
Catalog=licenseformmanagementsystem; Integrated security=true"
            con.Open()
            cmd.Connection = con
            cmd.CommandText = "Select * from staff"
            Dim ird As SqlDataReader = cmd.ExecuteReader()
            If ird.HasRows Then
                While ird.Read()
                    Password = ird("password").ToString()
                    id = ird("st id").ToString()
                    ird.Close()
            If (Password = txtcurrentpassword.Text And id = txtstaffid.Text) Then
                     If (txtnewpassword.Text = txtconformpassword.Text) Then
                            cmd.CommandText = "update staff set password='" &
txtnewpassword.Text & "' where st_id='" & txtstaffid.Text & "'"
                          cmd.ExecuteNonQuery()
                       MessageBox.Show("Password is changed sucessfully")
              MessageBox.Show("Current Password and New Password doesn't Match")
        ElseIf (txtcurrentpassword.Text = "" And txtnewpassword.Text = "" And
txtconformpassword.Text = "") Then
                 MessageBox.Show("Please enter all the filed to change password")
```

# CONCLUSION & REFERENCES

