**Important Codes**

1. **Create the required tables**
2. **Design the form interfaces**
3. **Connect the database**
4. **Add reference to the project**
5. **Coding**

**SYNTAX OF QUERIES:**

1. **Search:**

**Search and displayall record from table:**

Select \* from tablename

**Search and display specific record from table:**

Select \* from tablename where colname= value

Value= integer eg. 1,23

Value= string eg. ‘A’ , ‘abc’

1. **Insert**

insert into table values (value1, value 2,..)

Value= integer eg. 1,23

Value= string eg. ‘A’ , ‘abc’

1. **Delete**

Delete from tablename // deletes all records of the table

Delete from tablename where column= value // deletes specific record

Value= integer eg. 1,23

Value= string eg. ‘A’ , ‘abc’

1. **Update**

Update tablename Set col1=newval1, col2=newvalue2… Where col=value

Value= integer eg. 1,23

Value= string eg. ‘A’ , ‘abc’

**Common variables, header files and connection string**

Imports Oracle.DataAccess.Client

Public Class LOGIN

// make common variables global

Dim con1 As OracleConnection

Dim cmd As OracleCommand

Dim query As String

Dim temp As Integer

// put the connection string in Form\_load function

Private Sub LOGIN\_Load(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles MyBase.Load

con1 = New OracleConnection("Data Source=localhost;User ID=m;password=m")

End Sub

**Insert data into the table**

con1.Open()

query = "Insert into login values('" & TextBox1.Text & "','" & TextBox2.Text & "')"

cmd = New OracleCommand(query, con1)

cmd.CommandType = CommandType.Text

temp = cmd.ExecuteNonQuery()

If temp > 0 Then

MsgBox(" RECORD ADDED SUCESSFULLY", vbOKOnly, "MESSAGE")

Else

MsgBox(" INSERT OPERATION FAILED", vbOKOnly + vbCritical, "ERROR")

End If

con1.Close()

**Delete data from the table**

con1.Open()

Dim del As String

del = "delete from LAB where ID='" & TextBox1.Text & "' "

cmd = New OracleCommand(del, con1)

I = cmd.ExecuteNonQuery()

MessageBox.Show("Item Successfully Deleted")

con1.Close()

**Update data from the table**

query = "Update LAB Set PARTICULAR='" & TextBox2.Text & "',NAME\_OF\_SUP='" & TextBox3.Text.ToUpper & "',ADDRESS='" & TextBox4.Text & "' Where ID='" & TextBox1.Text & "'"

cmd = New OracleCommand(query, con1)

cmd.CommandType = CommandType.Text

con1.Open()

cmd.ExecuteNonQuery()

MsgBox("Record updated successfully", vbOKOnly, "MESSAGE")

con1.Close()

**Searching the data:**

1. **Search and display single record values in textboxes or using them for other operations/logics using data reader**

Dim reader2 As OracleDataReader

search = "select \* from LAB where ID=’" & TextBox1.Text & "’ "

cmd = New OracleCommand(search, con1)

con1.Open()

reader2 = cmd.ExecuteReader()

Do While reader2.Read()

TextBox1.Text = reader2("ID")

TextBox2.Text = reader2("PARTICULAR")

TextBox3.Text = reader2("NAME\_OF\_SUP")

TextBox4.Text = reader2("ADDRESS")

Loop

reader2.Close()

con1.Close()

1. **Search and display multiple rows in data grid view using data adapter**

Dim da As OracleDataAdapter

Dim d As DataSet

con1.Open()

query = "select \* from LAB "

cmd = New OracleCommand(query, con1)

da = New OracleDataAdapter(query, con1)

d = New DataSet()

da.Fill(d, "test")

DataGridView1.DataSource = d.Tables(0)

con1.Close()

**3. Search and display/use a single scalar value using ExecuteScalar**

// this code is used for auto-incrementing the ids

Dim ID As String

query = "Select max(id) from LAB"

con1.Open()

cmd = New OracleCommand(query, con1)

ID = cmd.ExecuteScalar().ToString

If (ID.Equals("")) Then

TextBox1.Text = 1 // add first value of the id as 1

Else

TextBox1.Text = Val(ID) + 1 // increments the ids by 1

End If

con1.Close()