Assignment 6	Name: Paul Attwood	Student Number: 18102880

Part 1

Code:

1.

```
private OleDbConnection connection = new OleDbConnection();//creates connection object
```

2.

```
private void ConnectionOpen()
{
        connection.ConnectionString = @"Provider = Microsoft.ACE.OLEDB.12.0; Data Source = C:\Users\PC\Documents\Database1.accdb; Persist S
        //***^^^update data source if database file changes directory^^^***
        try
        {
            connection.Open();//close the connection within methods that call connectionOpen
        }
        catch (Exception ex)
        {
            Console.WriteLine(ex.Message);
        }
}//method to open connection to access database file. Does not close the connection automatically. Update if database directory changes
```

3.

```
using (OleDbCommand command = new OleDbCommand())//create command object
{
    ConnectionOpen();//open connection
    command.Connection = connection;//sets command connection value
    command.CommandText = "Select * From Client_Info";//sets command command text
    OleDbDataReader reader = command.ExecuteReader();//creates reader object
    while (reader.Read())//while there are more entries
    {
        Console.WriteLine(reader["Client_ID"].ToString() + " " + reader["Client_Name"].ToString() + " " + reader["DOB"].ToString() +
    }
    connection.Close();//close connection
}
```

4.

```
using (OleDbCommand command = new OleDbCommand())//create command object
{
    ConnectionOpen();//call connection method
    command.Connection = connection;//sets command connection value
    command.CommandText = "Insert Into Client_Info (Client_Name, DOB, Address) Values (?,?,?)";
    command.Parameters.AddWithValue("Client_Name", name);
    command.Parameters.AddWithValue("DOB", DOB);
    command.Parameters.AddWithValue("Address", address);
    command.ExecuteNonQuery();//execute insert query
    connection.Close();//close connection
}
```

5.

```
using (OleDbCommand command = new OleDbCommand())//create command object
{
    ConnectionOpen();
    command.Connection = connection;//sets command connection value
    command.CommandText = "Update Client_Info Set Client_Name = ? Where Client_Name = ?";
    command.Parameters.AddWithValue("Client_Name", Name);
    command.Parameters.AddWithValue("Client_Name", Target);
    command.ExecuteNonQuery();//execute update query
    connection.Close();
}
```

6.

```
using (OleDbCommand command = new OleDbCommand())//create command object
{
    ConnectionOpen();
    command.Connection = connection;//sets command connection value
    command.CommandText = "Delete * From Client_Info Where Client_ID = ?";
    command.Parameters.AddWithValue("Client_ID", ID);
    command.ExecuteNonQuery();//execute delete query
    connection.Close();
}
```

Brief explanation:

- First and second picture are of the connection code which uses data.OleDB to connect to the accdb file specified in the connection string
- Third picture shows the Select method which shows all the data row by row in the Client_info table. It uses OleDbCommand to query the database
- The fourth picture shows the insert query which uses the same OleDbCommand to send the insert query to the database file
- The fifth picture shows the update query which uses the same OleDbCommand to send the update query to the database file
- The Sixth picture is the Delete query which works very much the same as the other OleDbCommands

Screen Shots:

```
1 Mary Murphy 1/1/1985 12:00:00 AM Newcastle, Galway
2 John Smith 5/3/1987 12:00:00 AM Salthill, Galway
3 Joe Franks 8/2/1990 12:00:00 AM Barna, Galway
Press 1 to insert a row into the table, 2 to update a name in the table, 3 to delete a row or 4 to exit the program
1
Please enter the name of the client you wish to add.
John
Please enter the Date of birth in MM/DD/YYYY format of the client you wish to add.
11/11/1212
Please enter the Address of the client you wish to add.
Nowhere
1 Mary Murphy 1/1/1985 12:00:00 AM Newcastle, Galway
2 John Smith 5/3/1987 12:00:00 AM Salthill, Galway
3 Joe Franks 8/2/1990 12:00:00 AM Barna, Galway
7 John 11/11/1212 12:00:00 AM Nowhere
Press 1 to insert a row into the table, 2 to update a name in the table, 3 to delete a row or 4 to exit the program
2
Please enter the name of the client you wish to change.
John
Please enter the new name for this client.
Steve
1 Mary Murphy 1/1/1985 12:00:00 AM Newcastle, Galway
2 John Smith 5/3/1987 12:00:00 AM Salthill, Galway
3 Joe Franks 8/2/1990 12:00:00 AM Barna, Galway
7 Steve 11/11/1212 12:00:00 AM Nowhere
Press 1 to insert a row into the table, 2 to update a name in the table, 3 to delete a row or 4 to exit the program
3
Please enter the id of the client you wish to delete.
7
1 Mary Murphy 1/1/1985 12:00:00 AM Newcastle, Galway
2 John Smith 5/3/1987 12:00:00 AM Salthill, Galway
3 Joe Franks 8/2/1990 12:00:00 AM Barna, Galway
Press 1 to insert a row into the table, 2 to update a name in the table, 3 to delete a row or 4 to exit the program
```

**Copy and paste the above table for any successive parts to the assignment.

**When complete save the document as a pdf and submit in a zipped folder with all your code.