```
Private void btnNext_click ( " )
{
    if (DR. Read ())
    {
        txtEmpId.Text = DR[0].To string ();
        txtEName.Text = DR[1].To String ();
        txtdesignation.Text = DR[2].To string ();
        txt DOJ .Text = DR[3].To string ();
        txt salary.Text = DR[4].To string ();
        txt deptNo.Text = DR[5].To string ();
    }
    else
        btnNext.Enabled = false;
}
```

Example to find a record using data reader:-

Enter EmpId _____   [find]

ENAme is _____

Designation is _____

DOJ is _____

Salary is _____

DeptNo is _____

```
using system.data.sqlclient;

Sql connection con;
Sql Command cmd;
Sql data Reader DR;
```

```csharp
Private Void btn find - Click (object Sender, EventArgs e)
{
    String sqlconstring = "Server = ; userID = ;"
    con = new Sql Connection (sqlcon string );

    con.open();
    String Query = "Select * FROM emp details Where empID
                    = " + txt empId. Text ;

    cmd = new Sql command (Query, con);
    cmd. command Type = command Type. Text;
    DR = cmd. Execute Reader ();
    if (DR. Read())
    {

      txteName. Text = DR[1]. To string ();
      txt designation. Text = DR[2]. To string ();
      txt DOJ. Text = DR[3]. To string ();
      txt salary. Text = DR[4]. To string ();
      txt deptNo. Text = DR[5]. To string ();
    }
    else
      Message box. Show ("Record not found");
      con. close ();
}
```

Ex:-

Select Emp Id   [▾]

EName is   [   ]

designation is   [   ]

DOJ is   [   ]

salary is   [   ]

dept No is   [   ]

Code:-

```
using system. data. Sql client;

Sql connection; Sql command; Sql data reader DR;

Private void Form18 load (object sender, Event Args e)
{
    String sql con string = " Server = ; user Id = ;"
    Con = new Sql connection (Sql Con string);
    Con. Open();
    Cmd = new Sql Command (" Select EmpId From details", Con)
    Cmd. Command Type = Command Type. Text;
    DR = Cmd. Execute Reader();
    While (DR. Read())
        Cmb EmpId. Items. Add (DR[0]);
    Con. close();
}
Private void cmbempId - Selected Index changed
{
    String Query = "Select * From Emp details Where EmpId="
                    + Cmb. EmpId. Selected Item;
    Cmd = new Sql command (Query, Con);
    Cmd. Command Type = Command Type. Text;
    Con. open();
    DR = Cmd. Execute Reader();
    DR. Read();
    txt EName. Text = DR[1]. to String();
    txt designation. Text = DR[2]. to String();
    txt DOJ. Text = DR[3]. to String();
    txt Salary. Text = DR[4]. to String();
    txt deptNo. Text = DR[5]. to String();
    Con. close();
}
```

Country details

Country Name ⇒ Varchar(30) → PK
Capital city ⇒ Varchar(30)
Prime minister ⇒ Varchar(30)
President ⇒ Varchar(30)
Currency Name ⇒ Varchar(30)
Population ⇒ BIG Int
Area ⇒ BIG Int
National Animal → Varchar(30)
National Bird → Varchar(30)
National Sport → Varchar(30)
National Anthem → Varchar(30)

State details

State Name → Varchar(30) → PK
Capital city → Varchar(30)
Governor → Varchar(30)
Chief minister → Varchar(30)
Population → Bigint
Area → Bigint
State Animal → Varchar(30)
State Bird → Varchar(30)
State sport → Varchar(30)
Country Name → Varchar(30) FK

✱ Example to display country details and selected state details :-

Select Country [▽]   Select state [▽]

Country details   state details

Capital city is [   ]   Capital city is [   ]

Prime minister is [   ]   chief minister is [   ]

President is [   ]   Governor is [   ]

Currency is [   ]   Population is [   ]

Population is [   ]   Area is [   ]

Area is [   ]   State Animal is [   ]

National Animal is [   ]   State Bird is [   ]

National Bird is [   ]   State sport is [   ]

National Sport is [   ]

National Anthem is [   ]

In form load Event

Task-1: In form load Event get all Country names from Country details table and add to combobox Cmb country.

Task-2: When User selects any country name in Cmb Country Combobox perform the following.

1. Get all the selected country details and display in textbox.

2. Get the states of the selected country from State details table and add to Combo box cmbstate.

3. When User selects any state from cmbstate Combo box get that state details and display in textboxes.

* Example to implement Insert update delete Operations using datareader With the help of Command Object.

Enter Emp Id [   ]

Enter EName [   ]

Enter Designation [   ]

Enter DOJ [   ]

Enter Salary [   ]

Enter DeptNo [   ]

[Insert]   [Update]

[Delete]   [Clear]

Code :-

```
using system.data.sqlclient;

sql connection con;
sql command cmd;
sql datareader DR;
string query;

private void btn Insert _ click (object sender, Event Args e)
{
    Query = "Insert into Empdetails Values (@P1, @P2,
        @P3, @P4, @P5, @P6";
    cmd = new sql command (query, con);
    cmd.parameters.Add With value (" @P1", txtempid.Text);
    cmd.parameters.Add With value (" @P2", txtEName.Text);
    cmd.parameters.Add With value ("@P3", txtdesignation.Text);
    cmd.parameters.Add With value ("@P4", txtDOJ.Text);
    cmd.parameters.Add With value ("@P5", txtsalary.Text);
    cmd.parameters.Add With value (" @P6", txtdeptNo.Text);
    con.open()
    DR= cmd.Execute Reader ();
    con.close();
    Message box.show (DR.Records Affected + "Record(s) Inserted";
}

private void form9_Load (                                    )
{
    String sqlcon string = " Server = ; user Id =    ;"
    con = new sql connection (sql con string );
}

private void btnupdate _click (                   )
{
```

```
Query = "update Empdetails set enname = @P1, Designation
                 = @P2, DOJ = @P3, Salary = @P4, DeptNo.
                 @P5 Where EmpId = @P6;

Cmd = new Sql command (Query, Con);
Cmd. command Type = command Type. Text;
Cmd. parameters. Add With Value ("@P1", txt enname. Text);
Cmd          ''              ''         ("@P2", txt designation. Text);
Cmd          ''              ''         ("@P3", txt DOJ. Text);
Cmd          ''              ''         ("@P4", txt Salary. Text);
Cmd          ''              ''         ("@P5", txt DeptNo. Text);
Cmd          ''              ''         ("@P6", txt txtEmpId. Text);
Con. open ();

DR = cmd. Execute Reader ();
Con. close ();
Message box. Show (DR. Records Affected + "Records) updated")


Private void btndelete _ click (          "         )
{

Query =" Delete Emp details Where EmpId = @P1";

Cmd = new Sql command (Query, Con);

Cmd. command Type = command Type. Text;

Cmd. parameters. Add With Value ("@P1", txtempId. Text);

Con. open ();

DR = cmd. Execute Reader ();

Con. close () .

Message box. Show (DR. Records Affected + "Record(s) deleted");
}

Private void btnclear _ click (-       ''        )
{
```

```
foreach (control c in this. Controls)
{
    if(c is Textbox)
        c.Text = " ";
}
```

* **Data Set in ADo.net :-**

→ Data set is an Inmemory object.

→ Data set Will Work With disconnected Architecture.

→ Data set doesn't Know how to Interact With database.
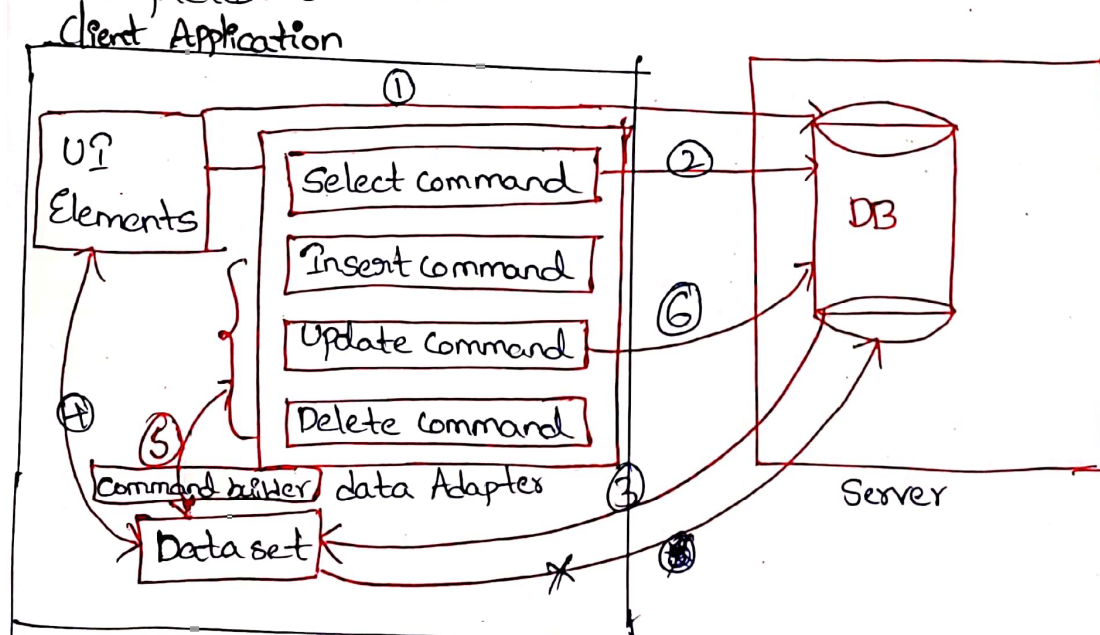So, dataset Will use an another object Known as data Adapter.

* data Adapter is responsible for the following

(i) Get the data from data base and fills into dataset.

(ii) updates the dataset data to database.

(iii) Once data is filled into dataset no more connections is maintained to the database. User will be Interacting With data set data only.

(iv) Once User Interaction With the dataset data is completed data set data can be updated to database.

Step-1:- Connection is Established to the Server.

Step-2:- data Adapter Will use Select command, sends request for the data to the server.

Step-3:- Select Query is executed at database side and the result is searched by the data Adapter filled into data set.

   * Once data is filled into data set, Connection is no longer maintained to the Server.

Step-4:- user Will be Interacting With data set data i.e. user Can search the data in dat set as Well as Can perform the operations like Insertion, updation, deletion on data set data.

Step-5:- once user Interaction is completed With data set data data Adapter Will request Command builder object and Will prepare Insert update delete Queries.

Step-6:- data Adapter Will update the modifications to the database.