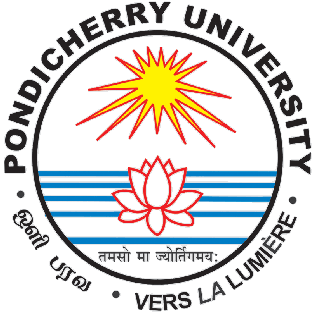
****

**PONDICHERRY UNIVERISTY**

**Department of  
Computer Science**

M.Sc. 1st Year

**DATABASE SYSTEMS LAB RECORD AND SCEENSHOTS**

Submitted By-

Indrani Das

Registration number-19370018

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**BOOKSTORE DATABASE**

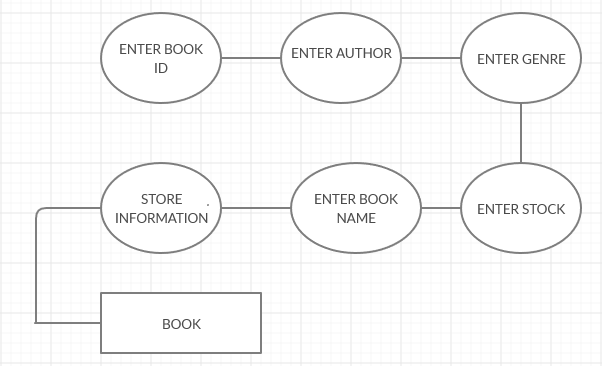
**EXPERIMENT:1**

**AIM:** Parallel Database For bookstore.

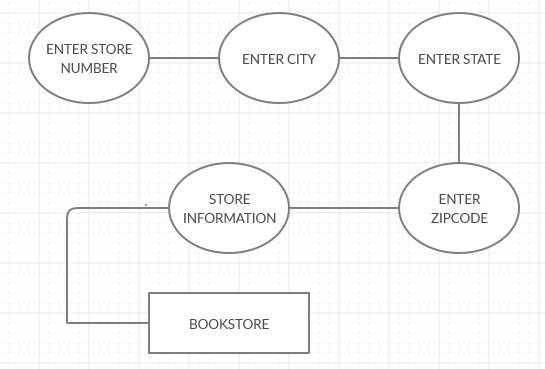
**Software and Tools used:**1. Visual Studio 2019 with .NET framework4.6.1-used to create Windows forms  
2. SQL Server 2019- used to create an Sql database.

**DATA FLOW DIAGRAM:**

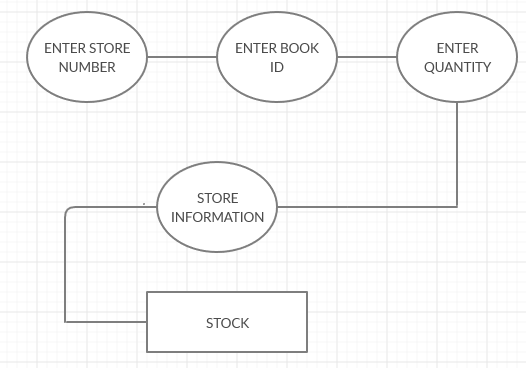
**BOOK:**



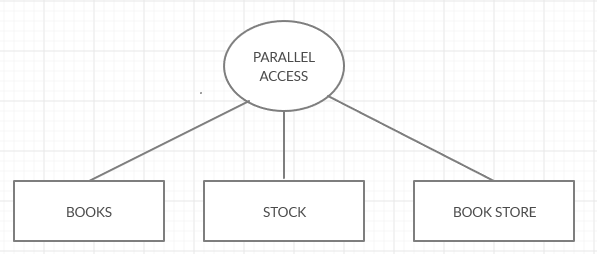
**BOOKSTORE:**



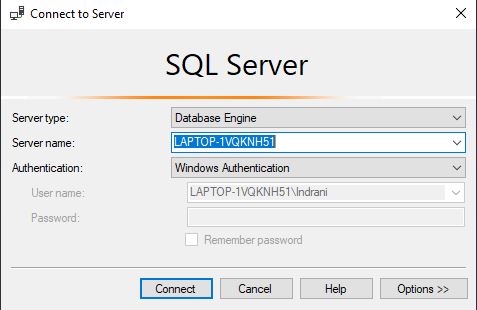
**STOCK:**



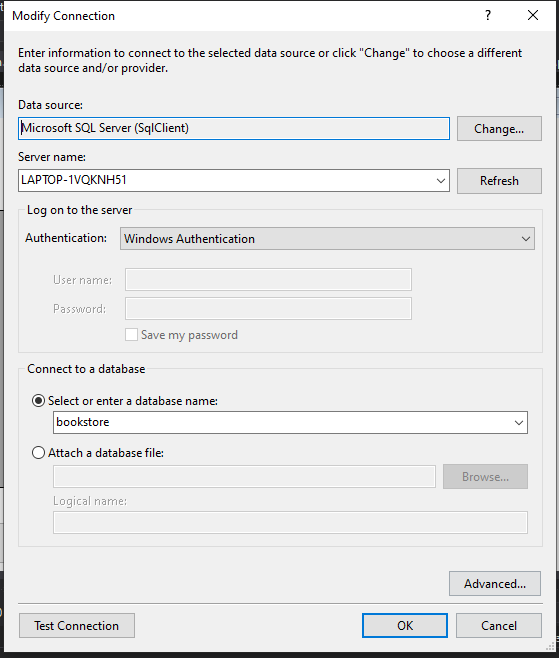
**PARALLEL ACCESS:**



**Connection to Server:**

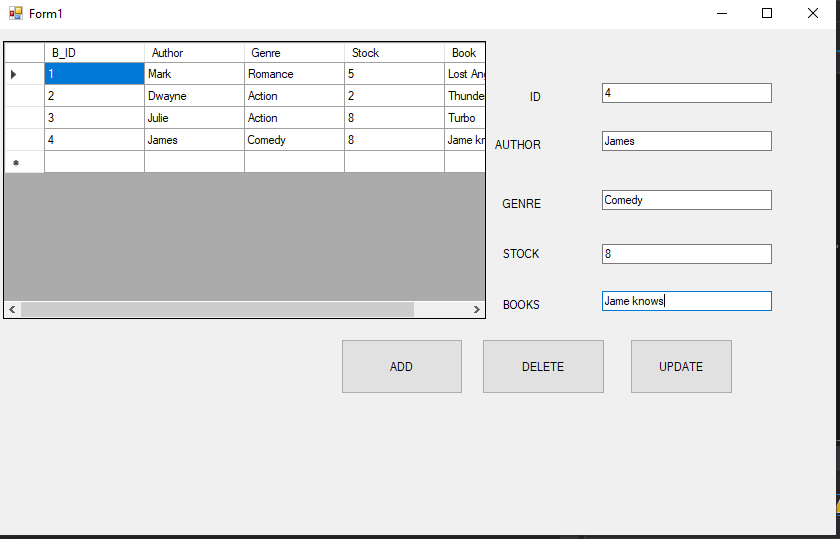


**CONNECTION OF FRONT END AND BACKEND:**

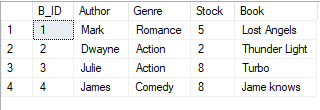


**SCREENSHOTS OF FORMS:**

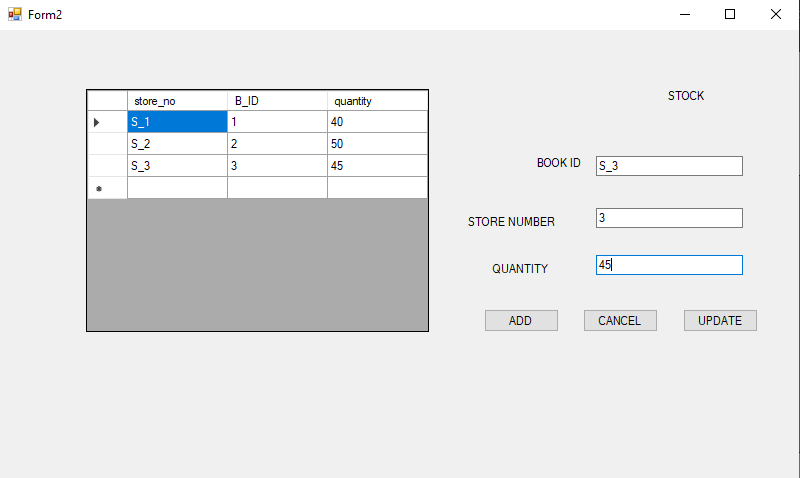
1. **Table Book:**



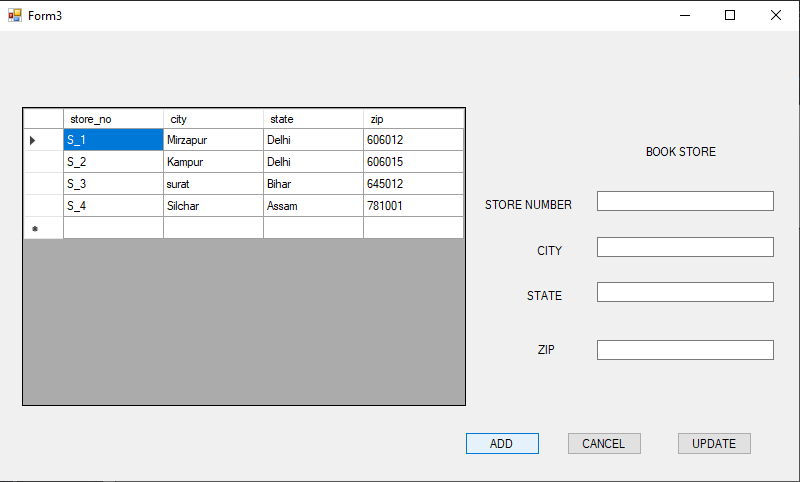
**Data stored in database:**

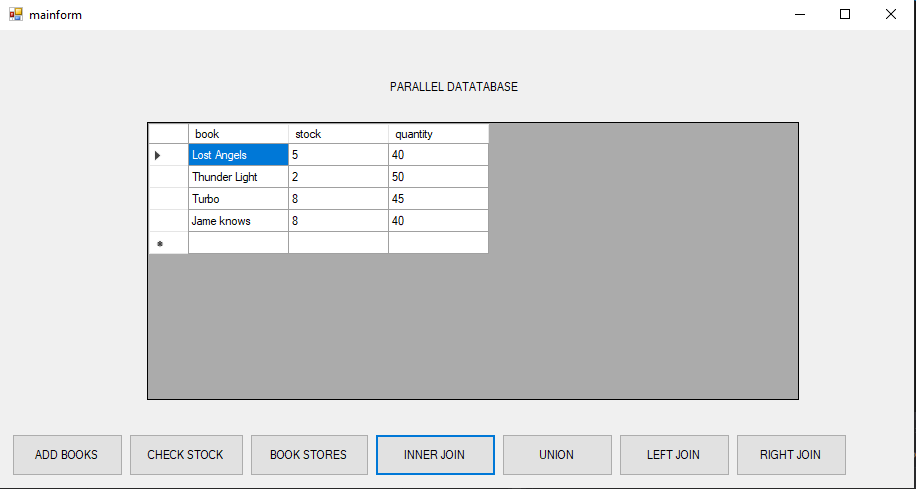


**(b)Table stock:**



**(c)Table Book Store:**



**Parallel Access:**

**LIBRARY MANAGEMENT SYSTEM**

**EXPERIMENT: 2**

**AIM: To create Parallel Database for Library Management system and Implement Parallel Join & Parallel Sort.**

**Software and Tools used:**1. Visual Studio 2017 with .NET framework-used to create Windows forms  
2. SQL Server 2018- used to create SQL databases.

**SQL SERVER CODES:**

use library;

CREATE TABLE BOOKS(

BOOK\_ID int PRIMARY KEY,

TITLE VARCHAR(13),

AUTHOR VARCHAR(10),

PRICE varchar(4),

AVAILABLE CHAR(1)

);

CREATE TABLE PUBLISHER(

PUB\_ID int PRIMARY KEY,

NAME VARCHAR(10),

ADDRESS VARCHAR(20)

);

CREATE TABLE MEMBER(

MEMBER\_ID int PRIMARY KEY,

NAME VARCHAR(10),

MEM\_DATE DATE,

EXP\_DATE DATE,

MEM\_TYPE CHAR(1)

);

CREATE TABLE BORROW(

BOOK\_ID int FOREIGN KEY REFERENCES BOOKS(BOOK\_ID),

MEMBER\_ID int FOREIGN KEY REFERENCES MEMBER(MEMBER\_ID),

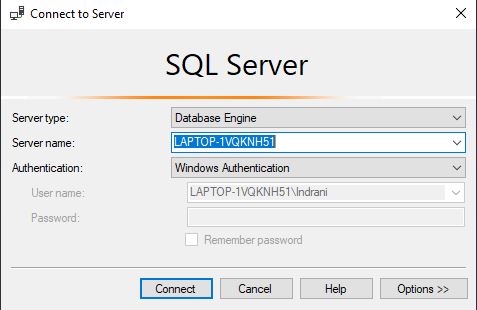
DUE\_DATE DATE,

RET\_DATE DATE,

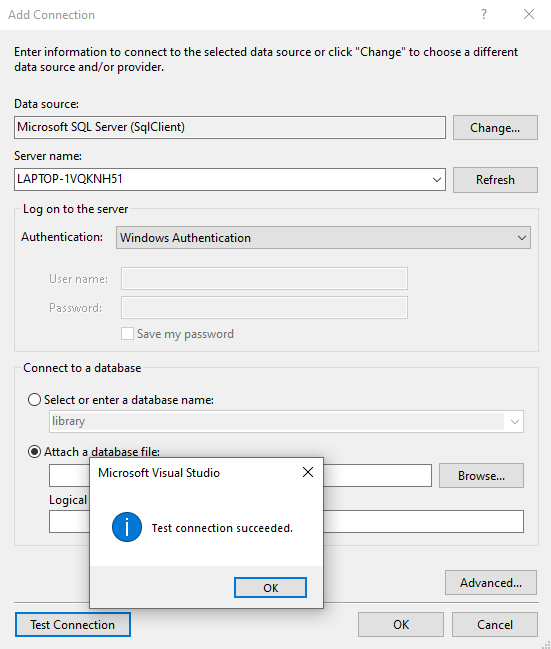
ISSUE CHAR(1)

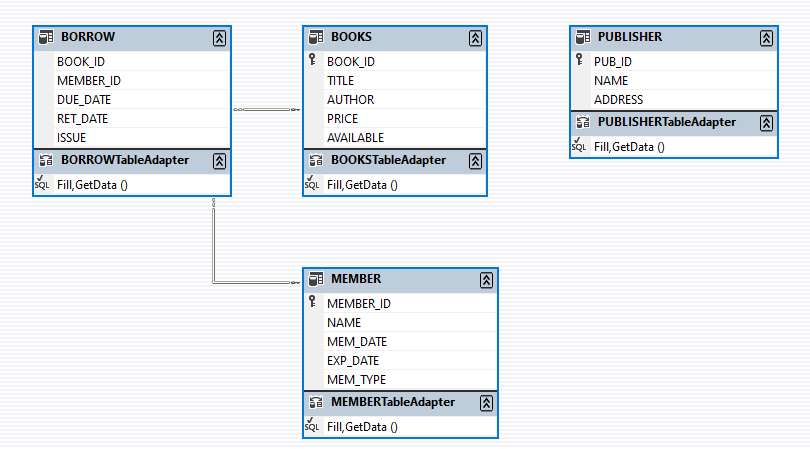
);

**SQL SERVER CONNECTION:**

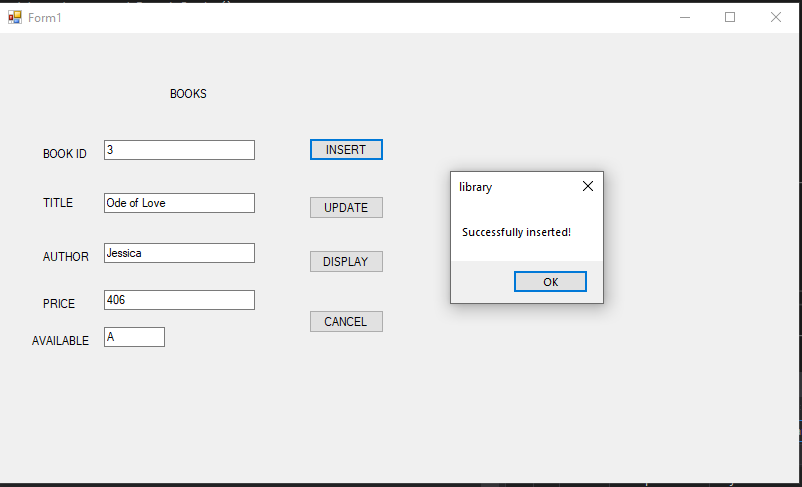


**CONNECTION OF FRONT END AND BACKEND:**

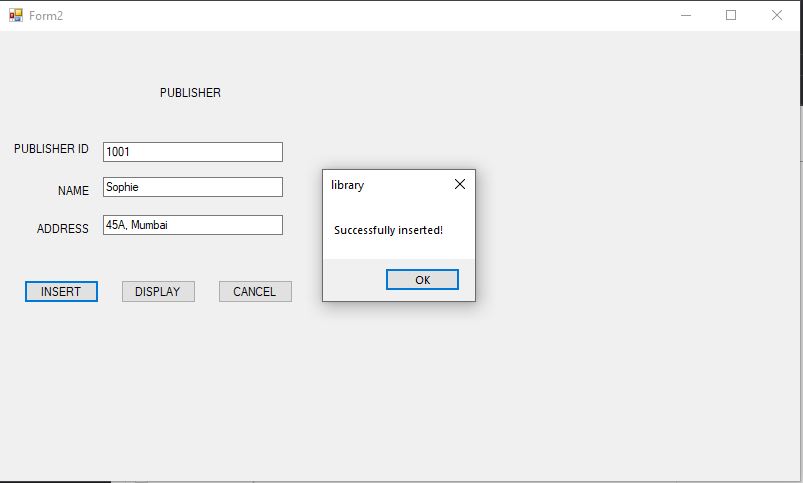


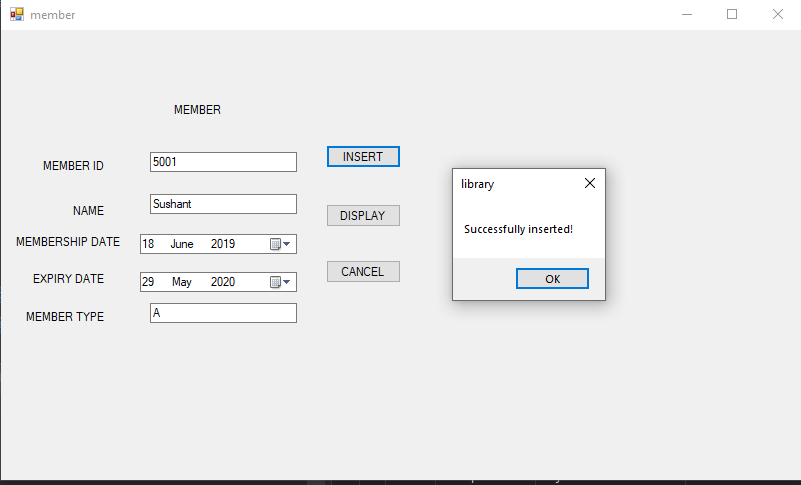
**SCHEMA:**

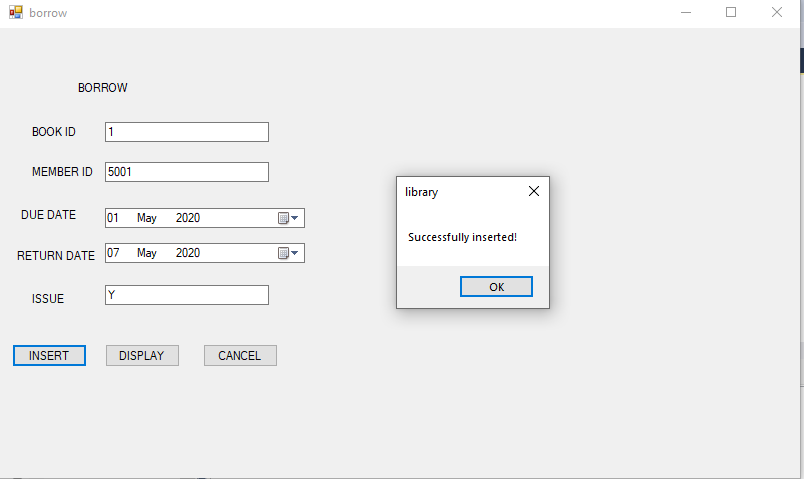
**Screenshots:**





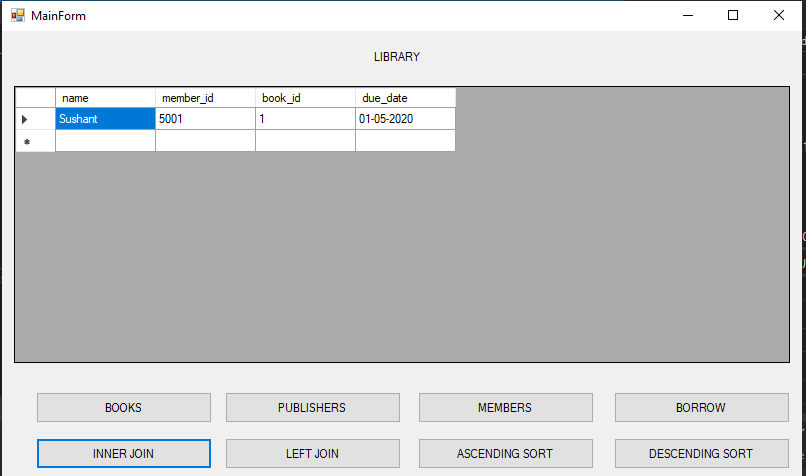




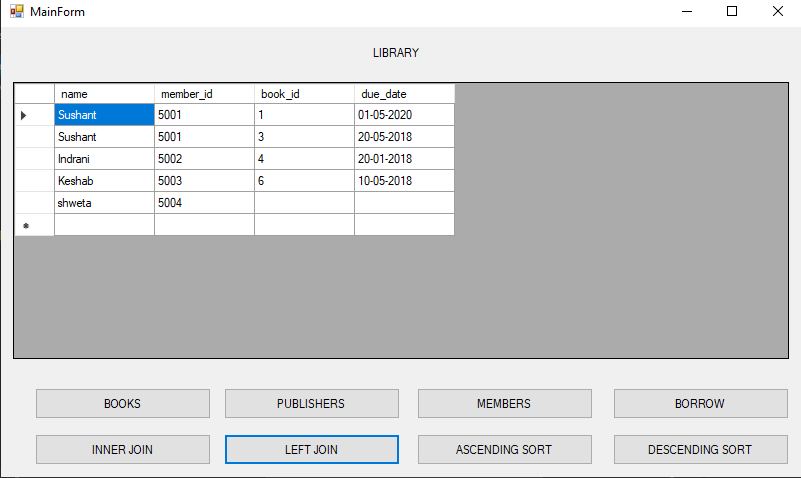


**Implementing Join:**

**INNER JOIN:** between member and borrow table.

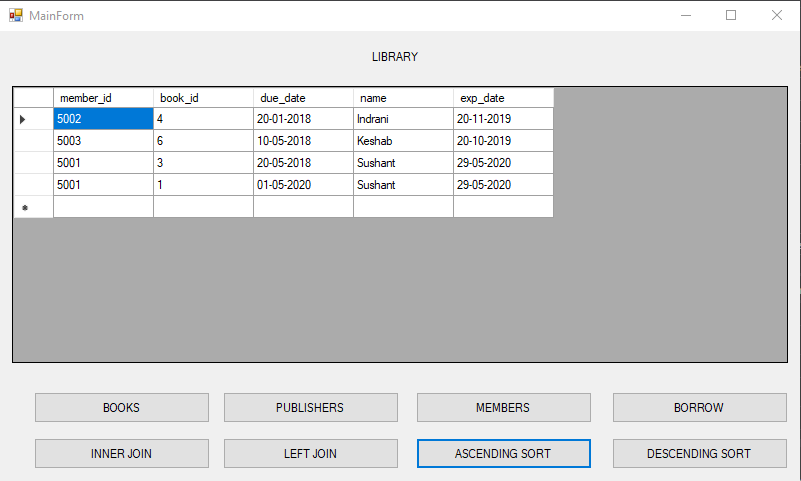


**Left Join:**

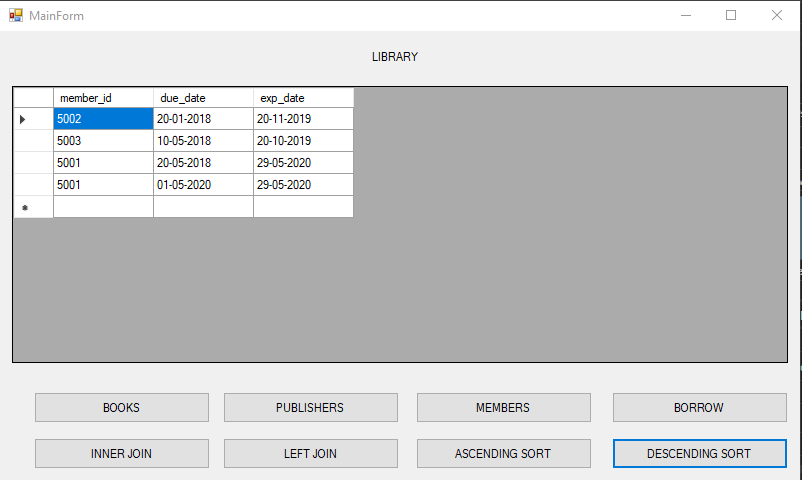


**Implementing Sort:**

**Sorting Due date and Membership expiry date in increasing order:**



**Sorting Due Date and membership expiry date in decreasing order:**



**DEPARTMENT MANAGEMENT SYSTEM**

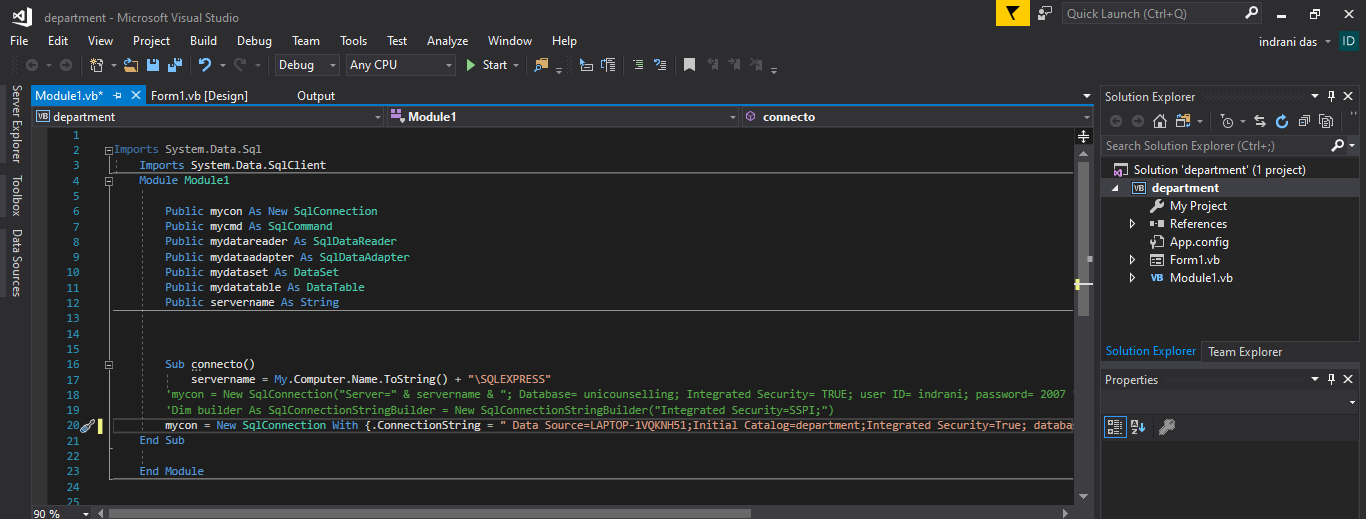
**AIM:** To generate a database having the information about computer science department including faculty details.

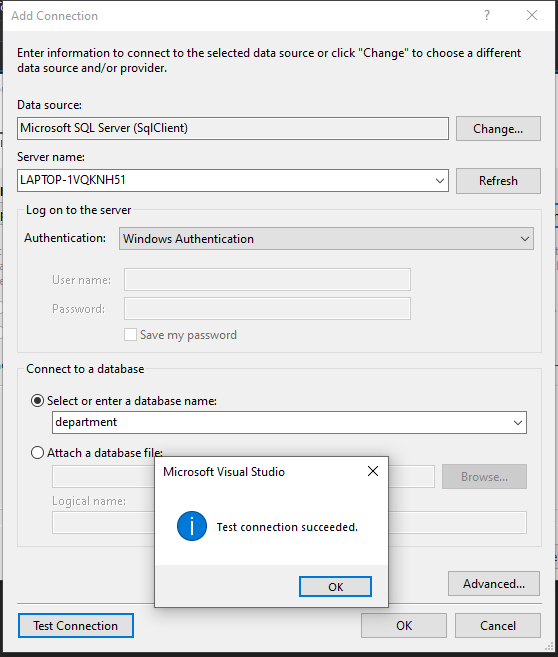
**Software Used:**

-SQL

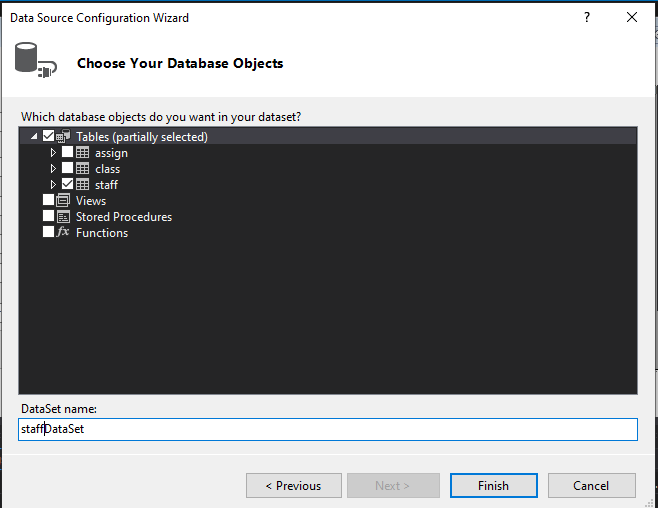
-SQL Server Management Studio

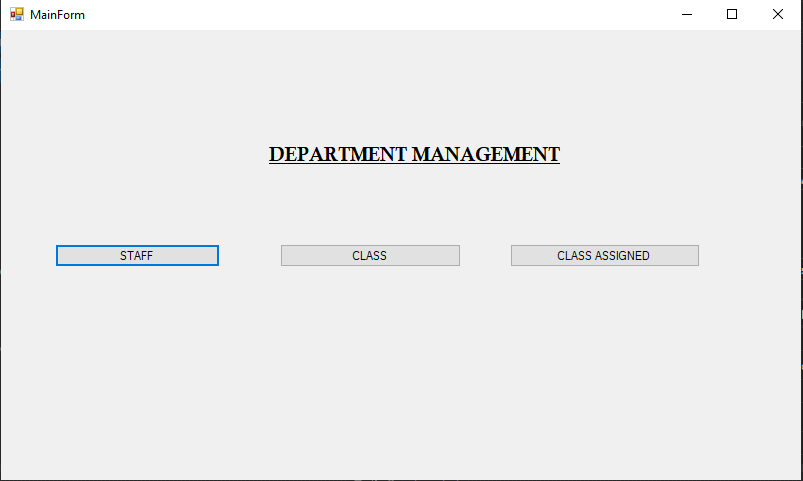
-Visual Studio 2017 using VB.NET framework

**CONNECTION MODULE:**

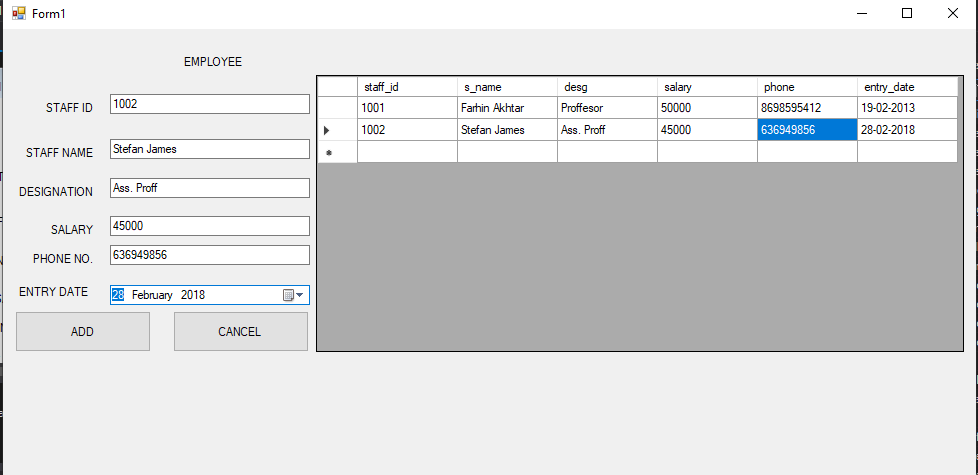
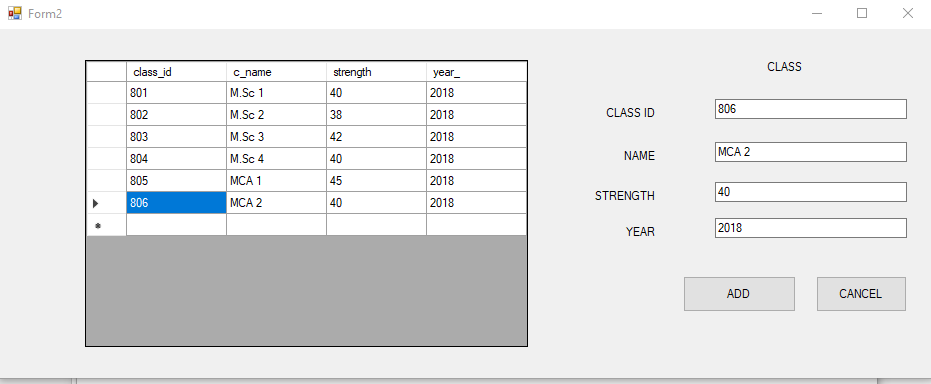


**Screenshots:**

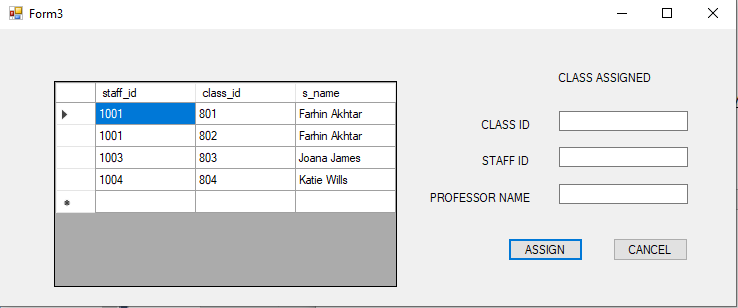




**STAFF TABLE:**

**CLASS TABLE:**

**CLASS ASSIGNED:**



**UNIVERSITY COUNSELLING FORM**

**EXPERIMENT: 6**

**AIM:** To create a University Counselling Form.

**Software used:** SQL SERVER MANAGEMENT STUDIO 2019

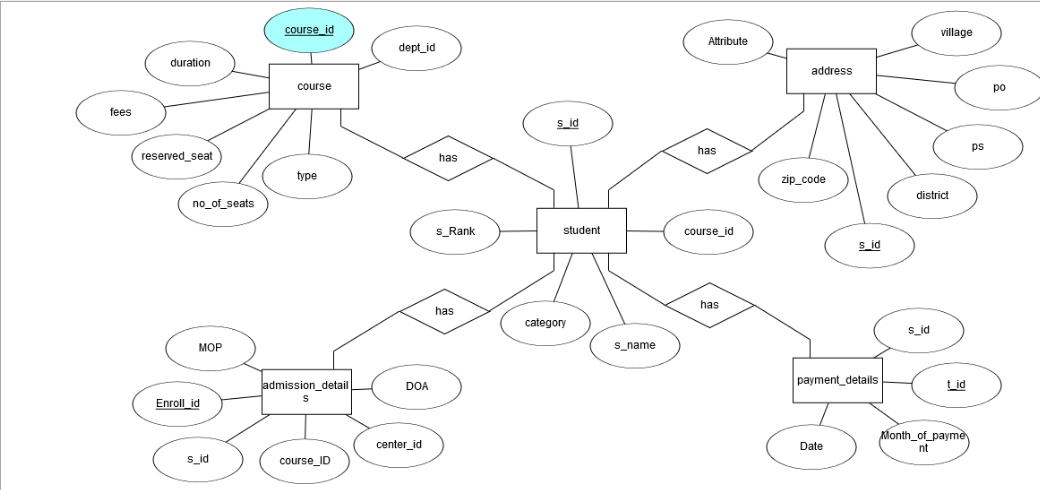
SQL SERVER

VISUAL STUDIO 2017

VB.NET

**ER DIAGRAM:**

 Entity Relationship (ER) Diagram is a type of flowchart that illustrates how “entities” such as people, objects or concepts relate to each other within a system. ER Diagrams are most often used to design relational databases.

****

**SCREENSHOTS:**

a)Query entry in SQL Server(Backend):

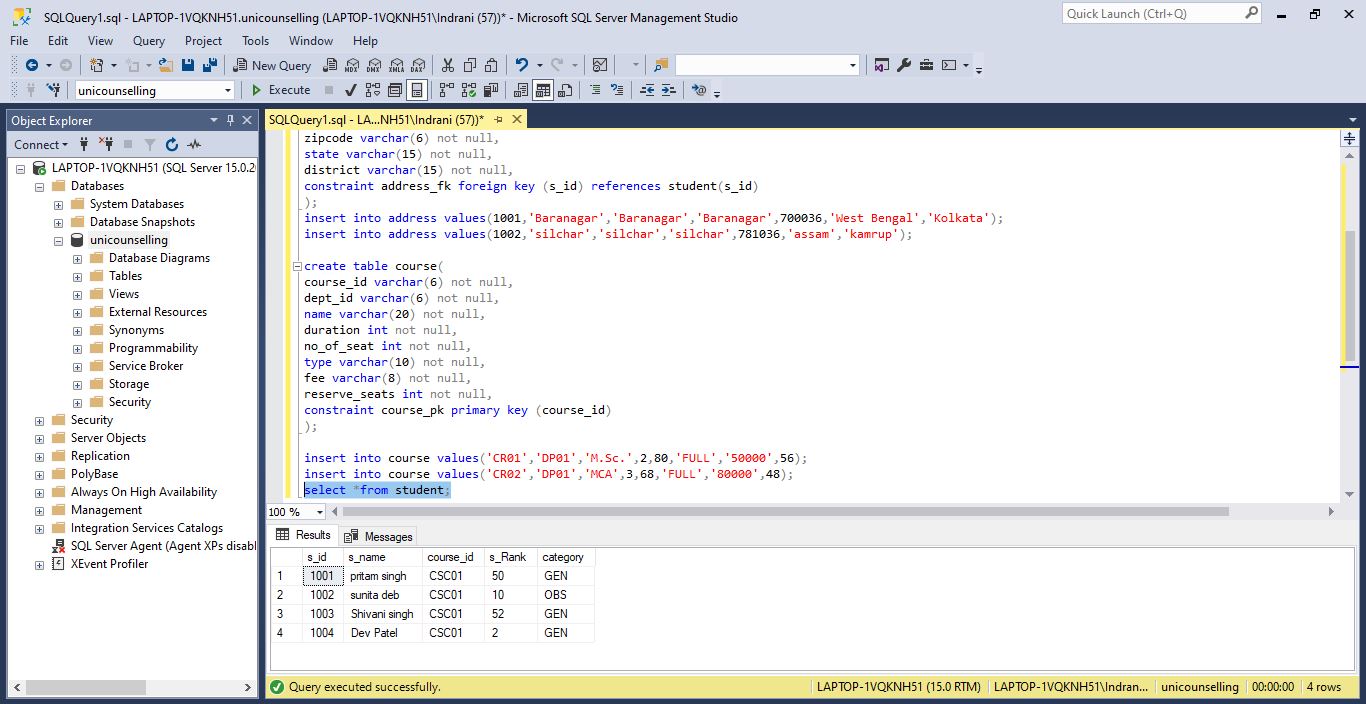
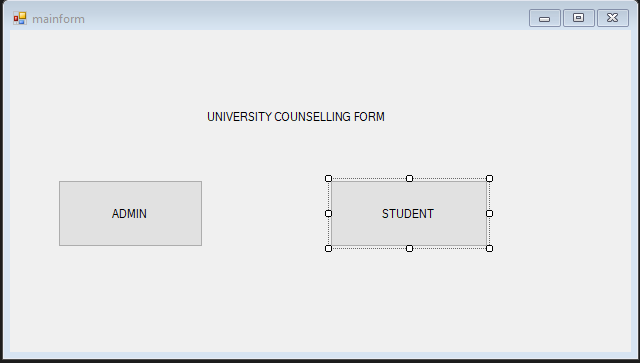
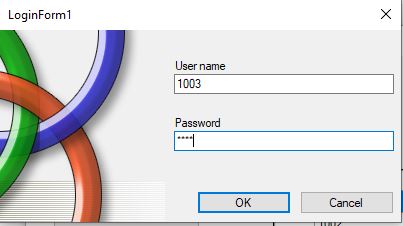
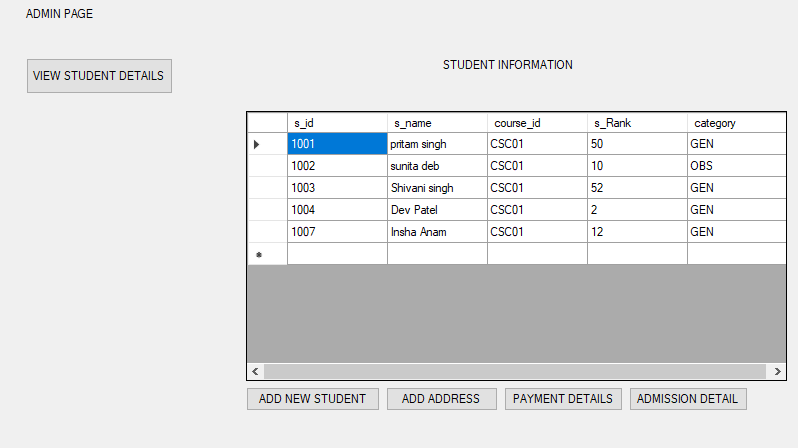
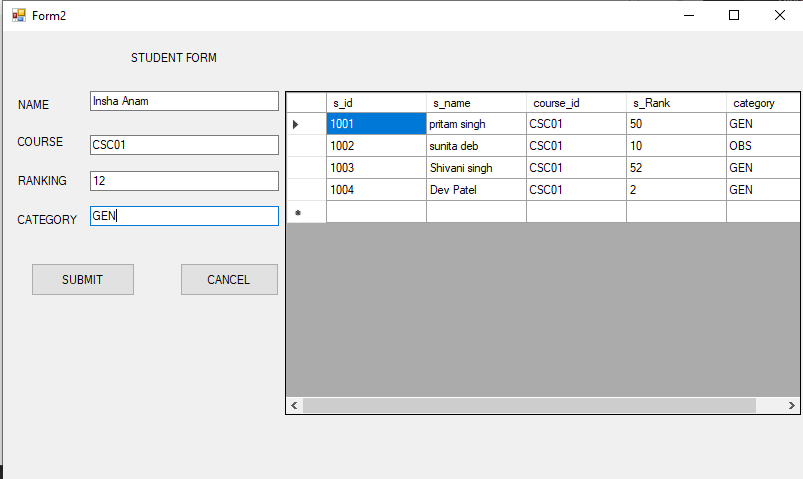


FIG: ADMIN MAIN PAGE

b)Windows forms made using VB.Net in Visual Studio(Frontend):







The data has been inserted:

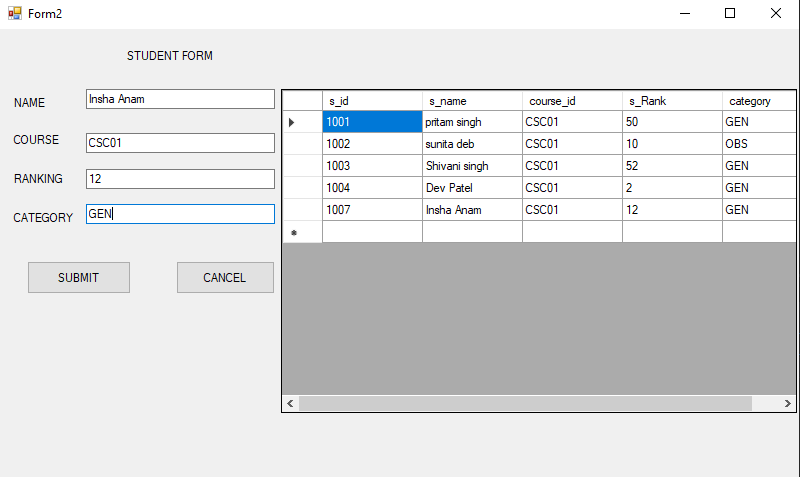


Fig: Student Form

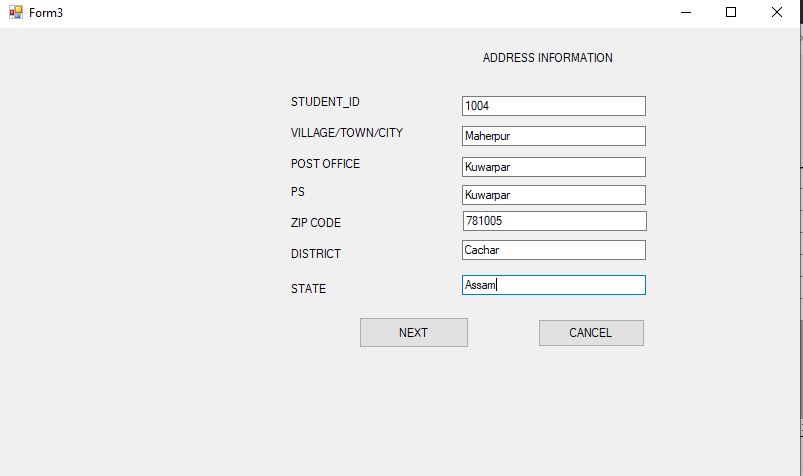
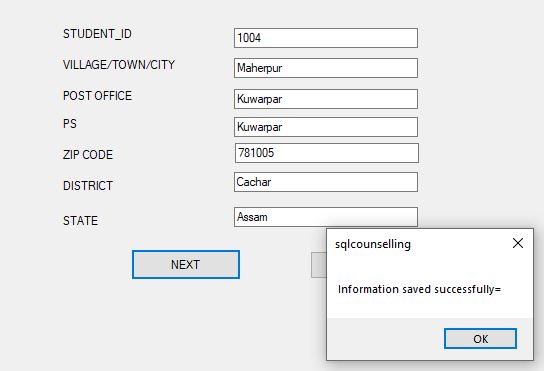
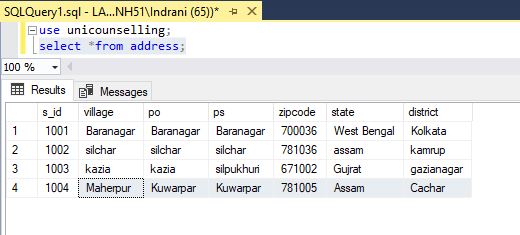


Fig: Address Form





The data has been inserted in the database.

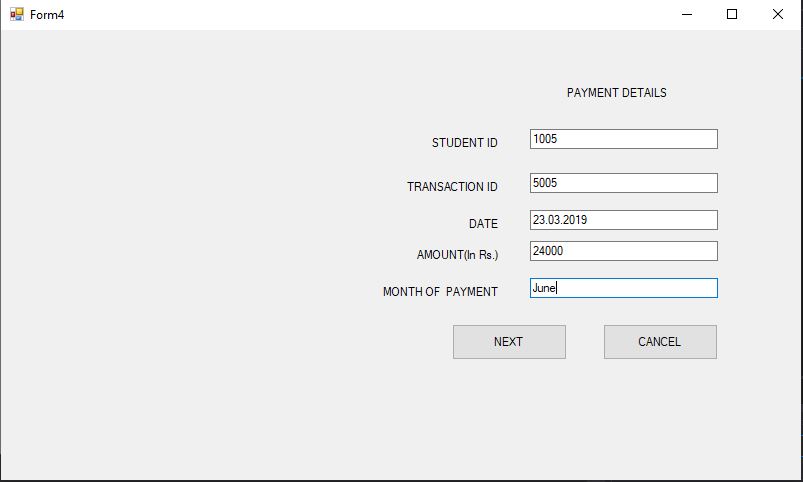
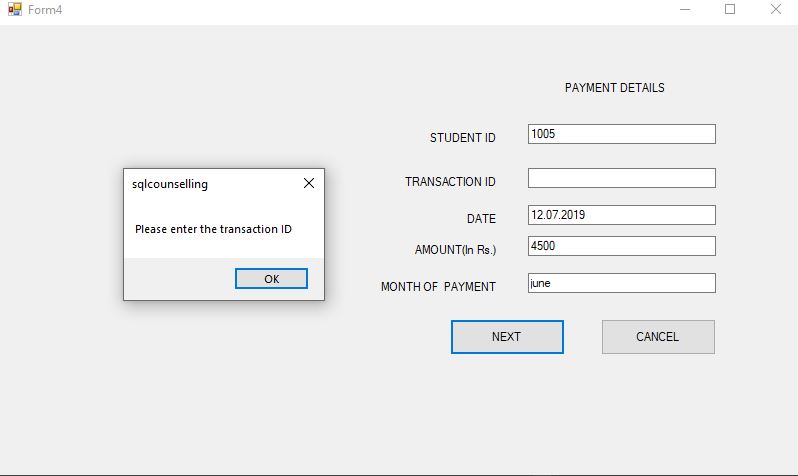
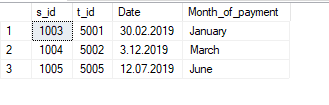


FIG: PAYMENT DETAILS FORM



If a section is not filled, error message pops up as the sections cannot be left blank.



The data has been inserted in the backend database.

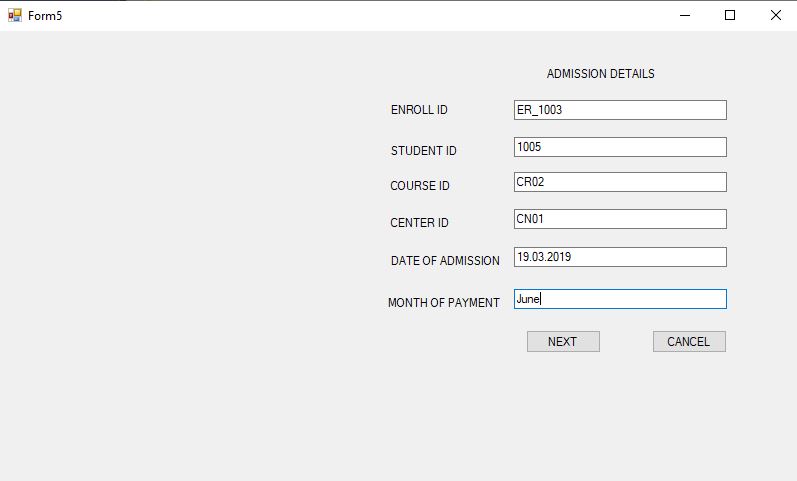


FIG: ADMISSION DETAILS FORM

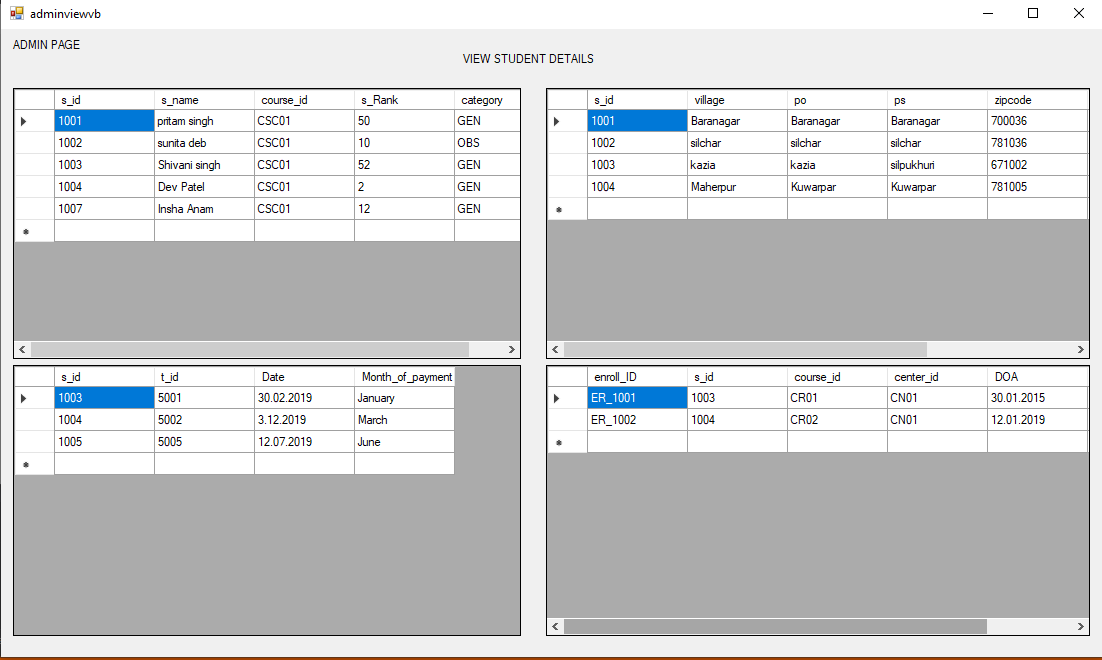


FIG: ADMIN VIEW PAGE

**CONNECTION MODULE AND CODE SAMPLE:**

Imports System.Data.Sql

Imports System.Data.SqlClient

Module myModule

Public mycon As New SqlConnection

Public mycmd As SqlCommand

Public mydatareader As SqlDataReader

Public mydataadapter As SqlDataAdapter

Public mydataset As DataSet

Public mydatatable As DataTable

Public servername As String

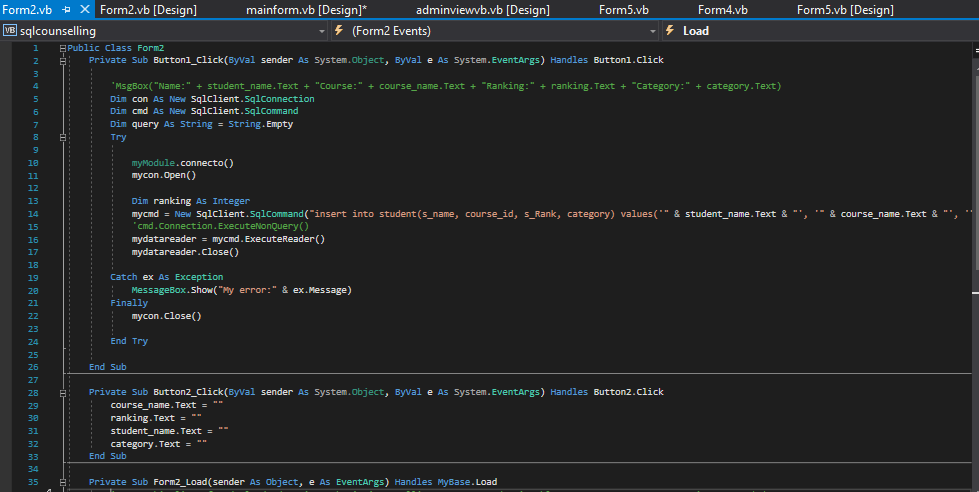
Sub connecto()

servername = My.Computer.Name.ToString() + "\SQLEXPRESS"

mycon = New SqlConnection With {.ConnectionString = " Data Source=LAPTOP-1VQKNH51;Initial Catalog=unicounselling;Integrated Security=True; database= unicounselling; User= indrani; Pwd= 2007;"}

End Sub

End Module



**TRIGGER**

**EXPERIMENT: 7**

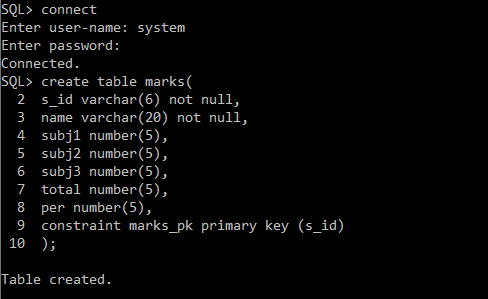
**AIM:** TO CREATE TIGGER**.**

**Defination:** A trigger is an pl/SQL block structure which is automatically fired when an event occurs in the database. The event can be a DML, DDL or a system event.

* DML statements (DELETE, INSERT, UPDATE)
* DDL statements (CREATE, ALTER, DROP)
* Database operations (SERVERERROR, LOGON, LOGOFF, STARTUP, SHUTDOWN).

**Step 1: Connect to Database.**

**Step 2: CREATE TABLE.**



**Step 3: CREATE TRIGGER.**

**Using Syntax:**

create trigger [trigger name]

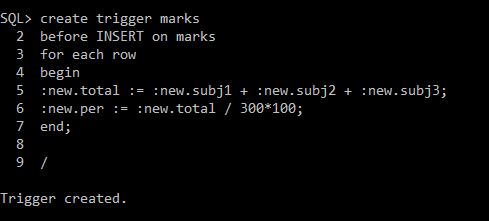
[before | after]

{insert | update| delete}

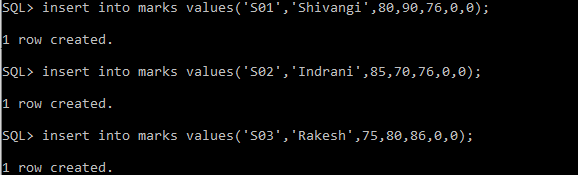
on [table\_name]

[for each row]

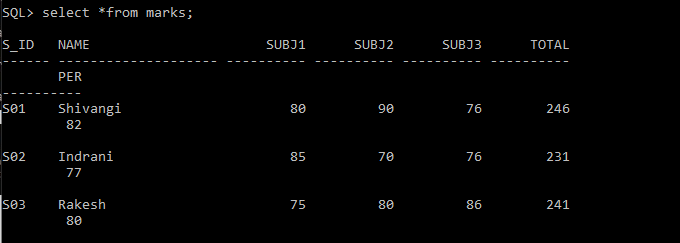
[trigger\_body]



**Step 4: INSERT into table marks.**

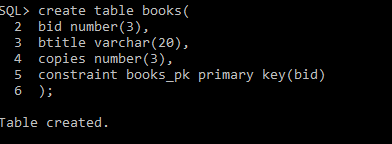


**Step 5: View the output using SELECT command.**

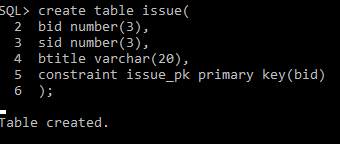


**AFTER INSERT:**

**Step 6: Create table Books**



**Step 7: Create table issue**



**Step 8: Create trigger**

create or replace trigger book\_issue

after insert on issue

for each row

begin

update books

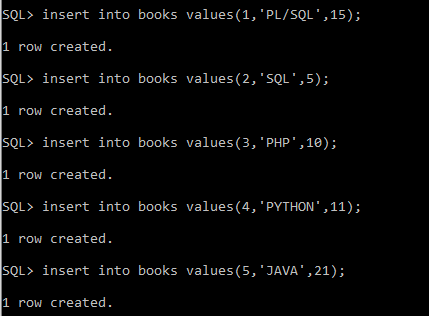
set copies = copies - 1

where books.bid =: new.bid;

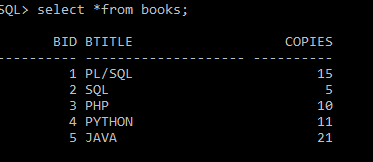
end;

/

**Step 9: Insert into books table.**



**Step 10: Check initial values in books**

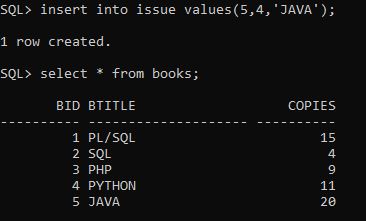


**Step 11: Insert into issue**

insert into issue values(5,4,'JAVA');

insert into issue values(2,3,'SQL');

insert into issue values(3,2,'PHP');



**Study and Working of WEKA TOOL**

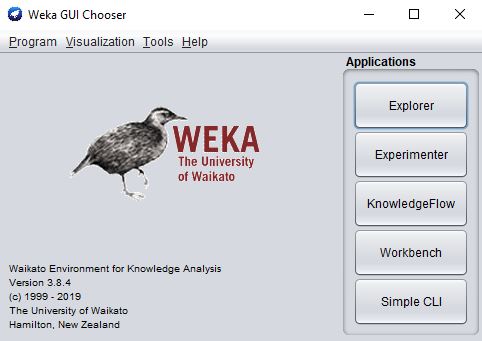
**Experiment: 9**

**AIM: Study of Weka Tool**

**Steps:**

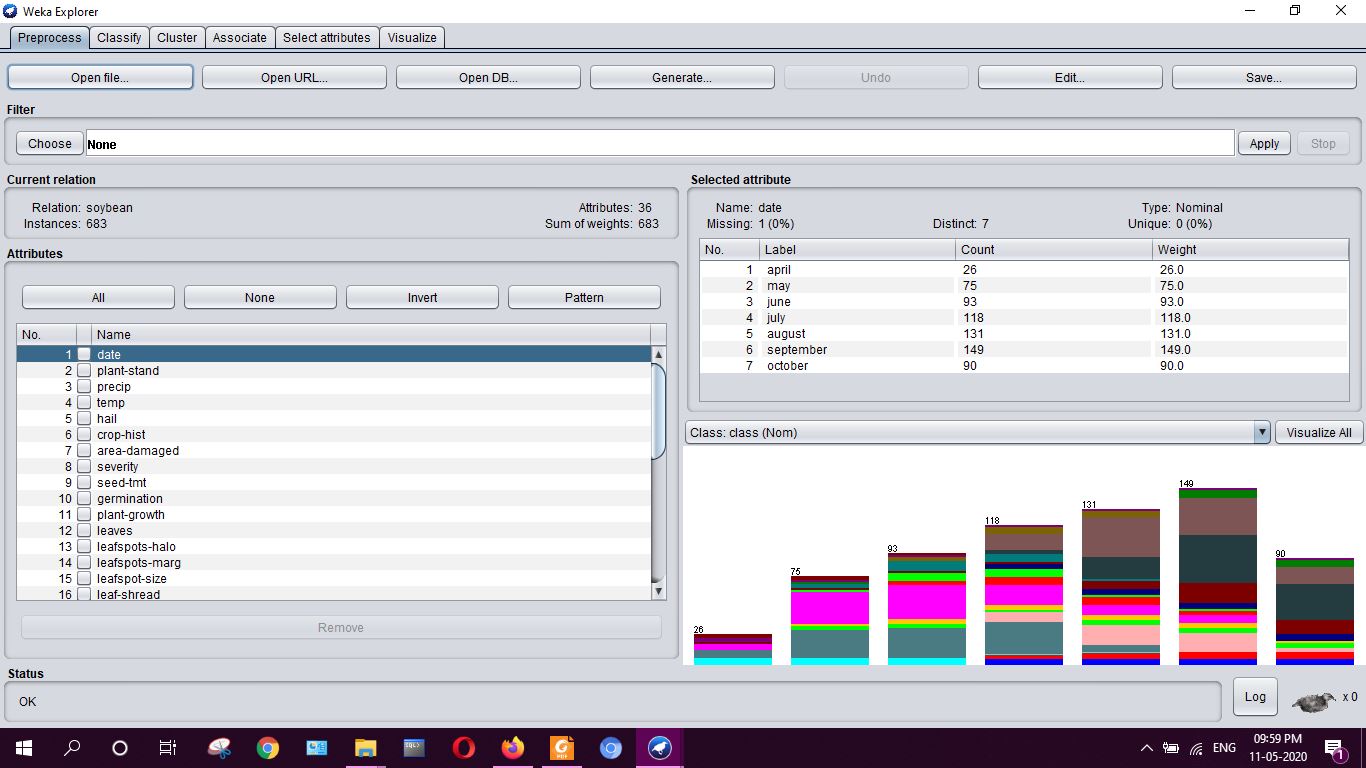
a)Download Weka 3.8.4 and install the program.

b) Open WEKA GUI chooser and select “**Explorer**”.



c) We can select sample file provided with WEKA. For that, select open file and browse to location C:\Program Files\Weka-3-8-4\data.

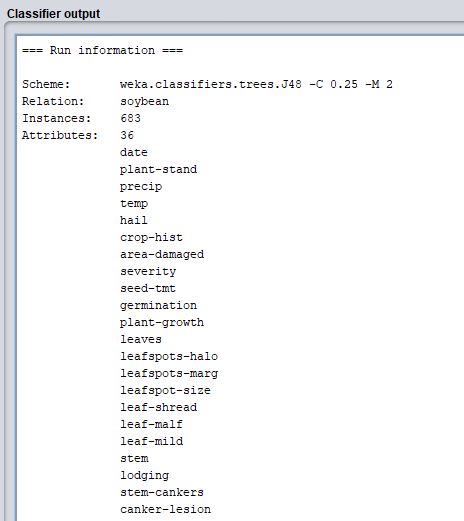
d) Open any file with .arff extension. Here, I’ve used soybean.arff.

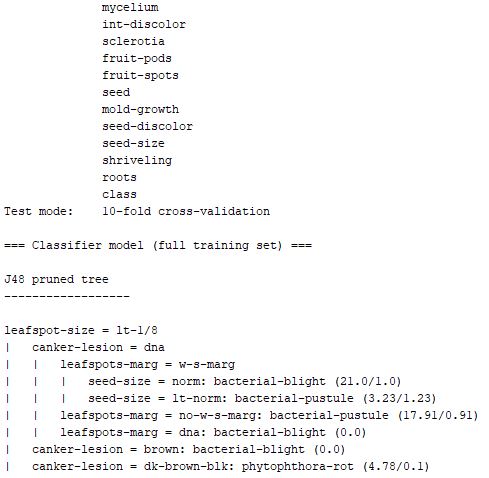


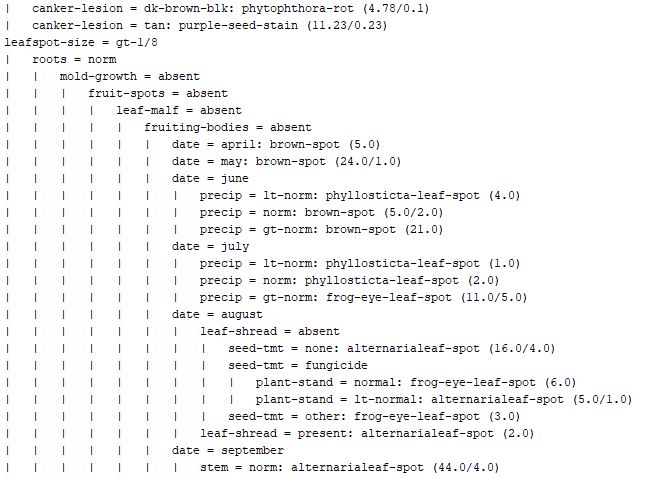
e) Select “Visualize all” to check all the attributes.

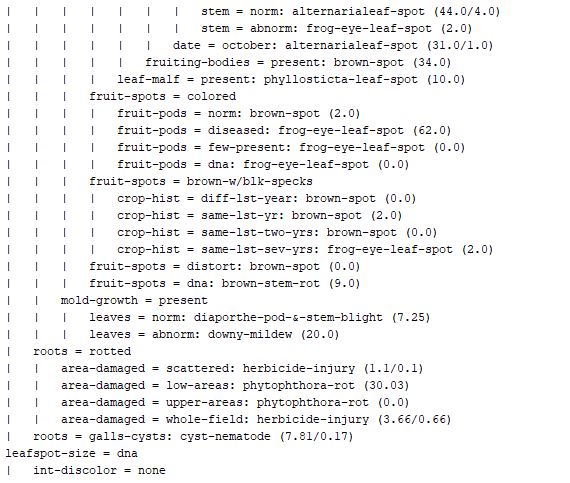
f) Go to “**Classify**”, choose a classifier J48 from trees and select “start”.

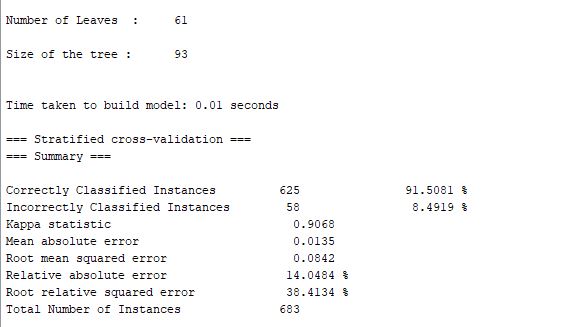
g) Classifier output:

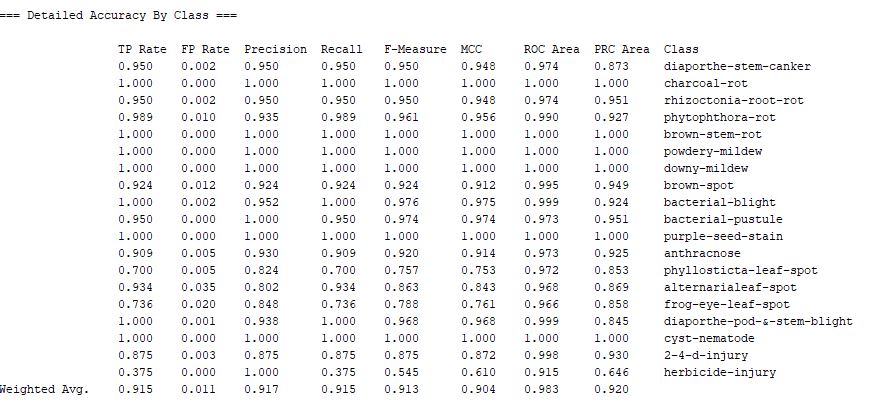


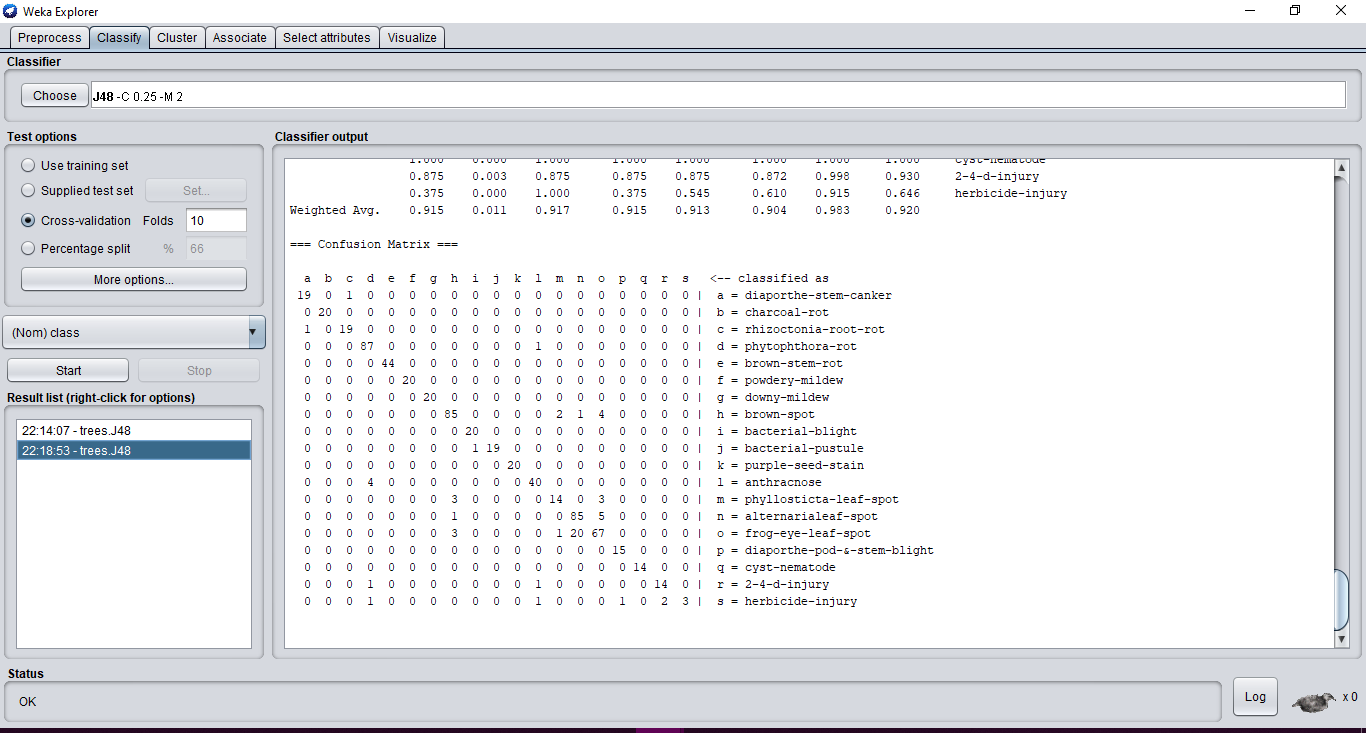






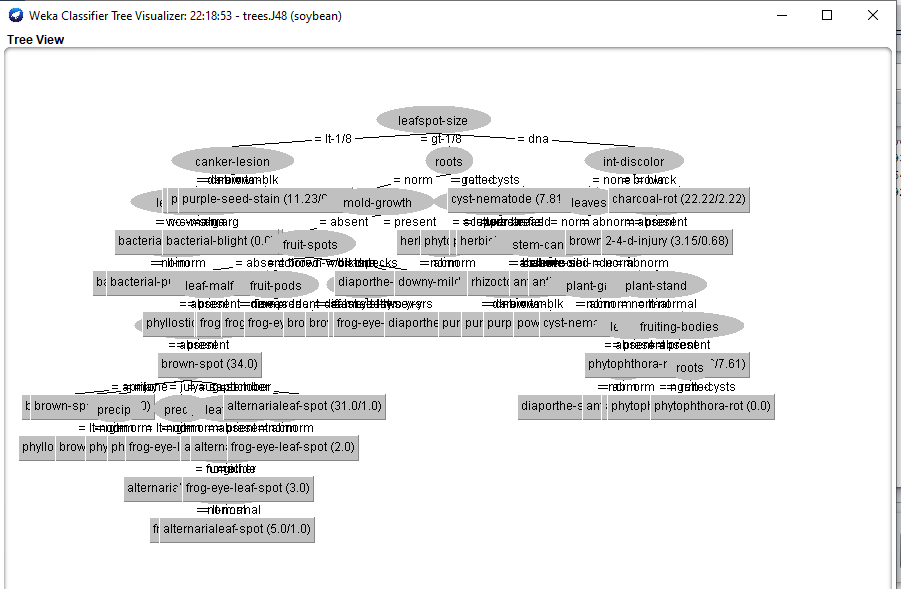


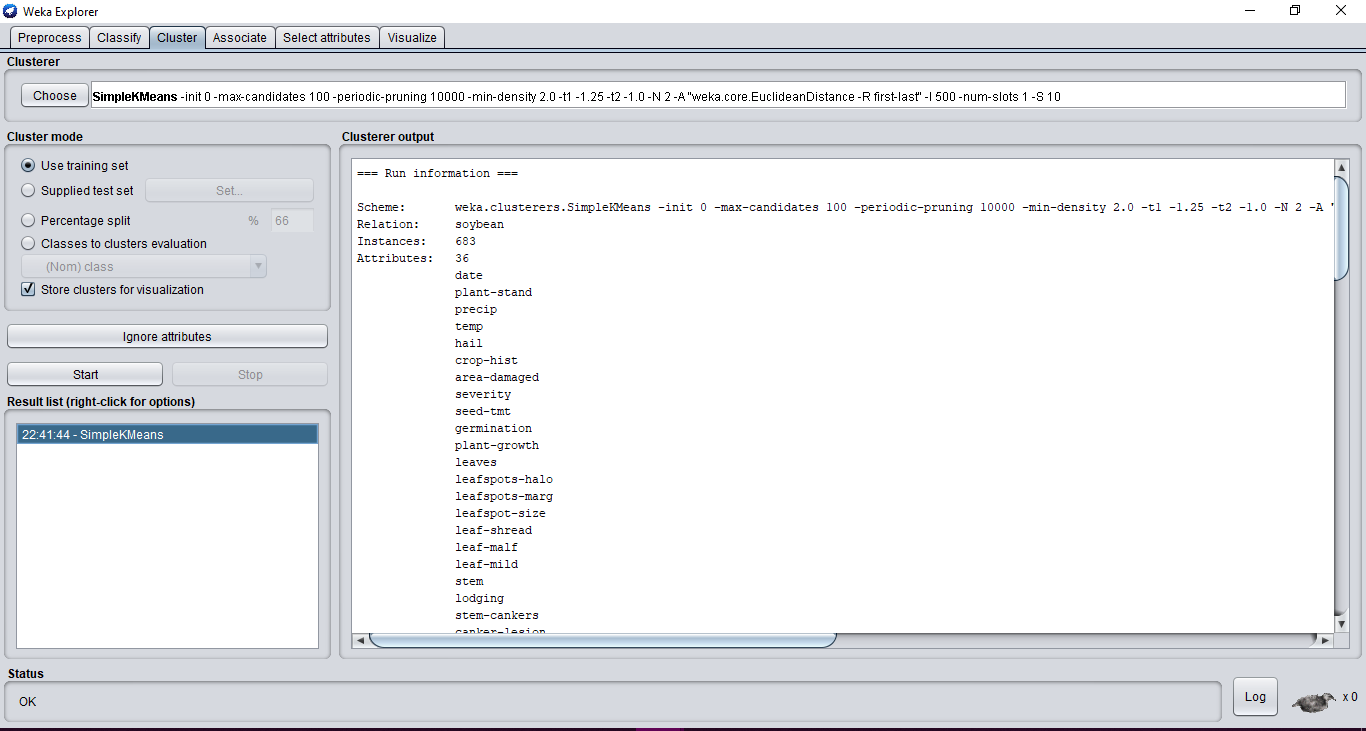




This will classify the dataset and create a ‘confusion matrix’. It the dataset and classification is proper, an “OK” status will appear in the bottom left corner.

g) we can visualise the tree by choosing visualize tree option which is a Weka classifier tree visualiser. This gives a brief idea on how classification is done.



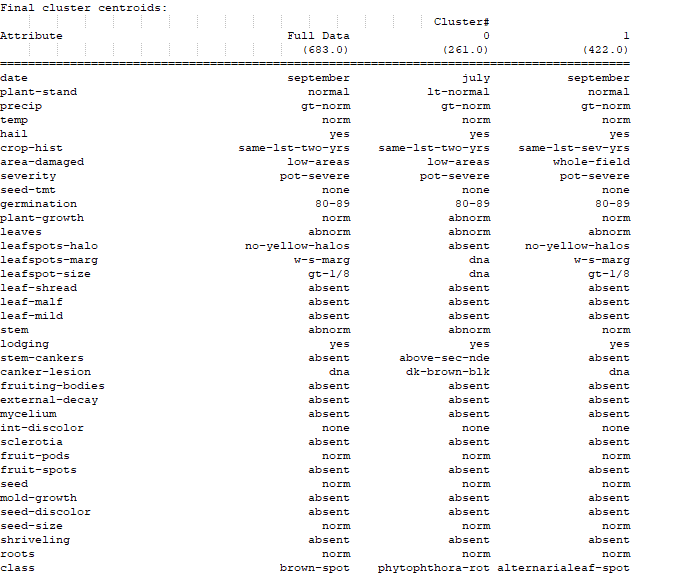
h) Go to “**Cluster**” which is used for grouping of the data.

**Initial starting points (random):**

**Cluster 0:** september,normal,gt-norm,norm,yes,same-lst-two-yrs,whole-field,severe,fungicide,80-89,norm,abnorm,no-yellow-halos,w-s-marg,gt-1/8,absent,absent,absent,abnorm,yes,absent,tan,present,firm-and-dry,absent,none,absent,norm,absent,norm,absent,absent,norm,absent,norm,brown-spot

**Cluster 1:** june,lt-normal,gt-norm,norm,yes,same-lst-sev-yrs,whole-field,pot-severe,none,lt-80,norm,abnorm,no-yellow-halos,w-s-marg,gt-1/8,present,absent,absent,norm,yes,absent,dna,absent,absent,absent,none,absent,norm,absent,norm,absent,absent,norm,absent,norm,brown-spot

**Final cluster centroids**:

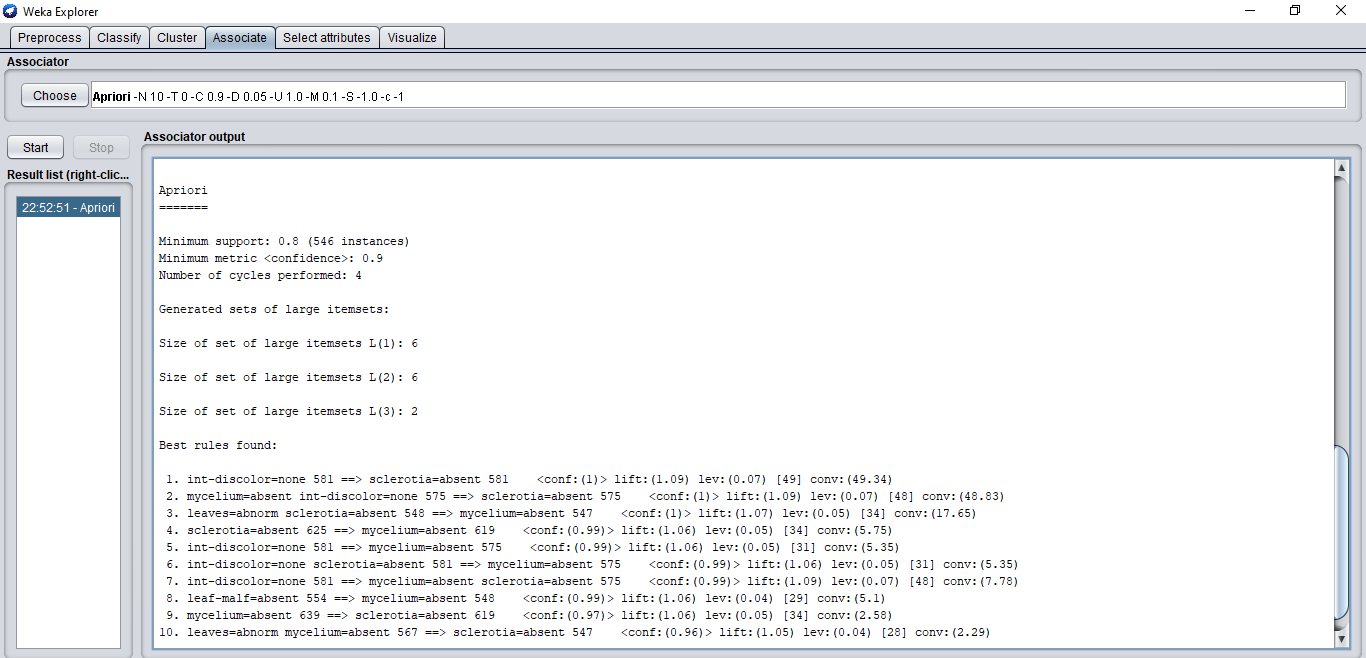
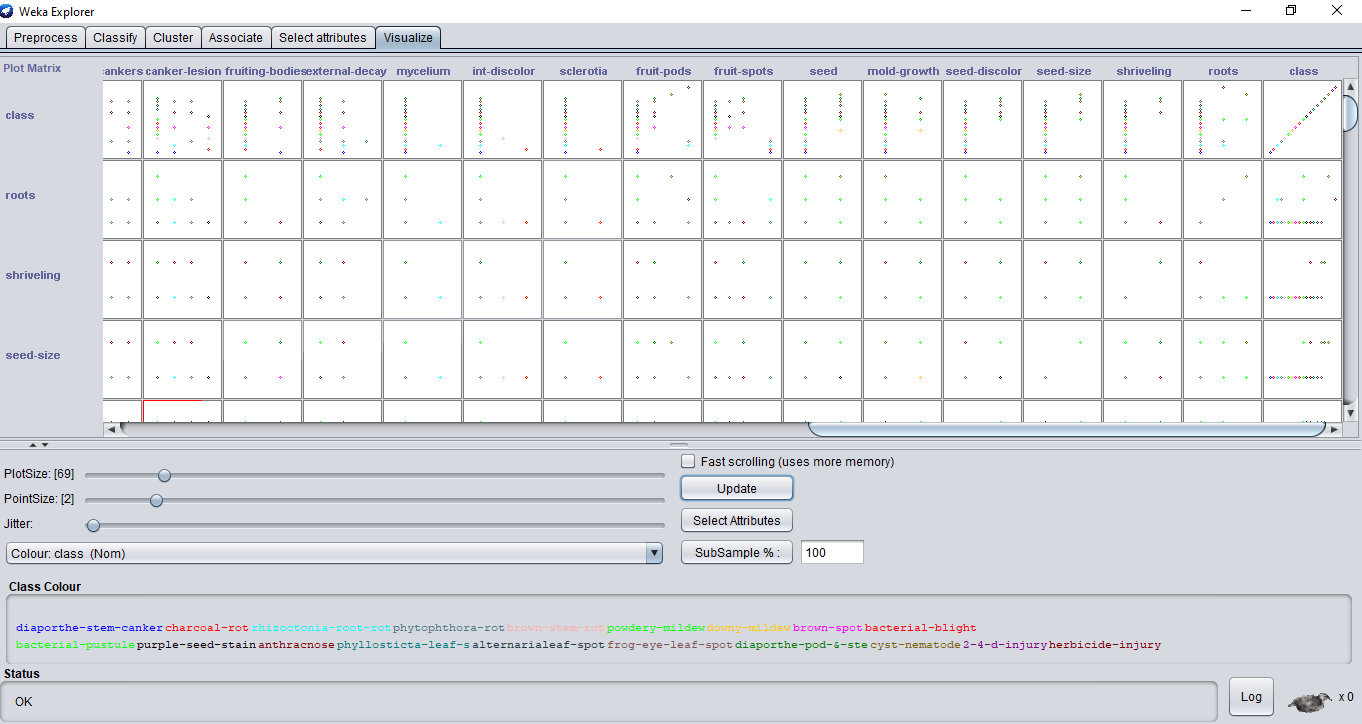


Clustered Instances:

0 261 ( 38%)

1 422 ( 62%)

i) Go to “Associate”. Choose ‘Apriori’ and click on "start" to build the model.

j)Go to “Visualise” for checking and visualizing the entire data.

**XML SCHEMA FOR COMPANY DATABASE**

**EXPERIMENT:** 10

**AIM:** DESIGNING XML SCHEMA FOR COMPANY DATABASE.

**Software and Tools used:**

1. **Visual Studio 2017 with .NET framework 4.6.1**  
   - used to create Windows forms
2. **Oracle Database 10g express edition**  
   - used to create an Oracle database
3. **ODP.NET Managed Driver**  
   - used to create a database connection to the windows forms
4. **EDraw Max**  
   - used to create the ER Diagram
5. **Notepad**

-Used to write xml code

**System requirements:**

1. **Visual Studio 2017 with .NET framework 4.6.1**

**Supported Operating Systems:** Visual Studio 2017 will install and run on the following operating systems:

* Windows 10 version 1507 or higher: Home, Professional, Education, and
* Enterprise (LTSC and S are not supported)
* Windows Server 2016: Standard and Datacentre
* Windows 8.1 (with Update 2919355): Core, Professional, and Enterprise
* Windows Server 2012 R2 (with Update 2919355): Essentials, Standard, Datacentre
* Windows 7 SP1 (with latest Windows Updates): Home Premium, Professional, Enterprise, Ultimate

**Hardware:**

* 1.8 GHz or faster processor. Dual-core or better recommended
* 2 GB of RAM; 4 GB of RAM recommended (2.5 GB minimum if running on a virtual machine)
* Hard disk space: up to 130 GB of available space, depending on features installed; typical installations require 20-50 GB of free space.
* Hard disk speed: to improve performance, install Windows and Visual Studio on a solid-state drive (SSD).
* Video card that supports a minimum display resolution of 720p (1280 by 720); Visual Studio will work best at a resolution of WXGA (1366 by 768) or higher.

**Additional Requirements:**

* .NET Framework 4.5.2 or above is required to **install** Visual Studio. Visual Studio requires .NET Framework 4.7.2 to run, but this will be installed during setup.

**Operating system general requirements:** Oracle Database for Windows x64 is supported on the following operating system versions:

* Windows 7 x64 - Professional, Enterprise, and Ultimate editions
* Windows 8 x64 and Windows 8.1 x64 - Pro and Enterprise editions
* Windows 8.1 x64 - Pro and Enterprise editions
* Windows 10 x64 - Pro, Enterprise, and Education editions
* Windows Server 2012 x64 - Standard, Datacentre, Essentials, and Foundation editions
* Windows Server 2012 R2 x64 - Standard, Datacentre, Essentials, and Foundation editions
* Windows Server 2016 x64 - Standard, Datacentre, and Essentials editions

**HARDWARE SPECIFICATION:**

* **Main Memory (RAM):** 4GB or above
* **Secondary Storage:** 200GB or above
* **Monitor:** Any colour Monitor of 24bit Resolution
* **Mouse:** General Windows supported
* **Keyboard:** General Multimedia Windows/Linux supported
* **Processor:** Intel® Core™ i5- 8250U CPU @ 1.60GHz 1.80GHz
* **Model used:** Aspire A515-51G

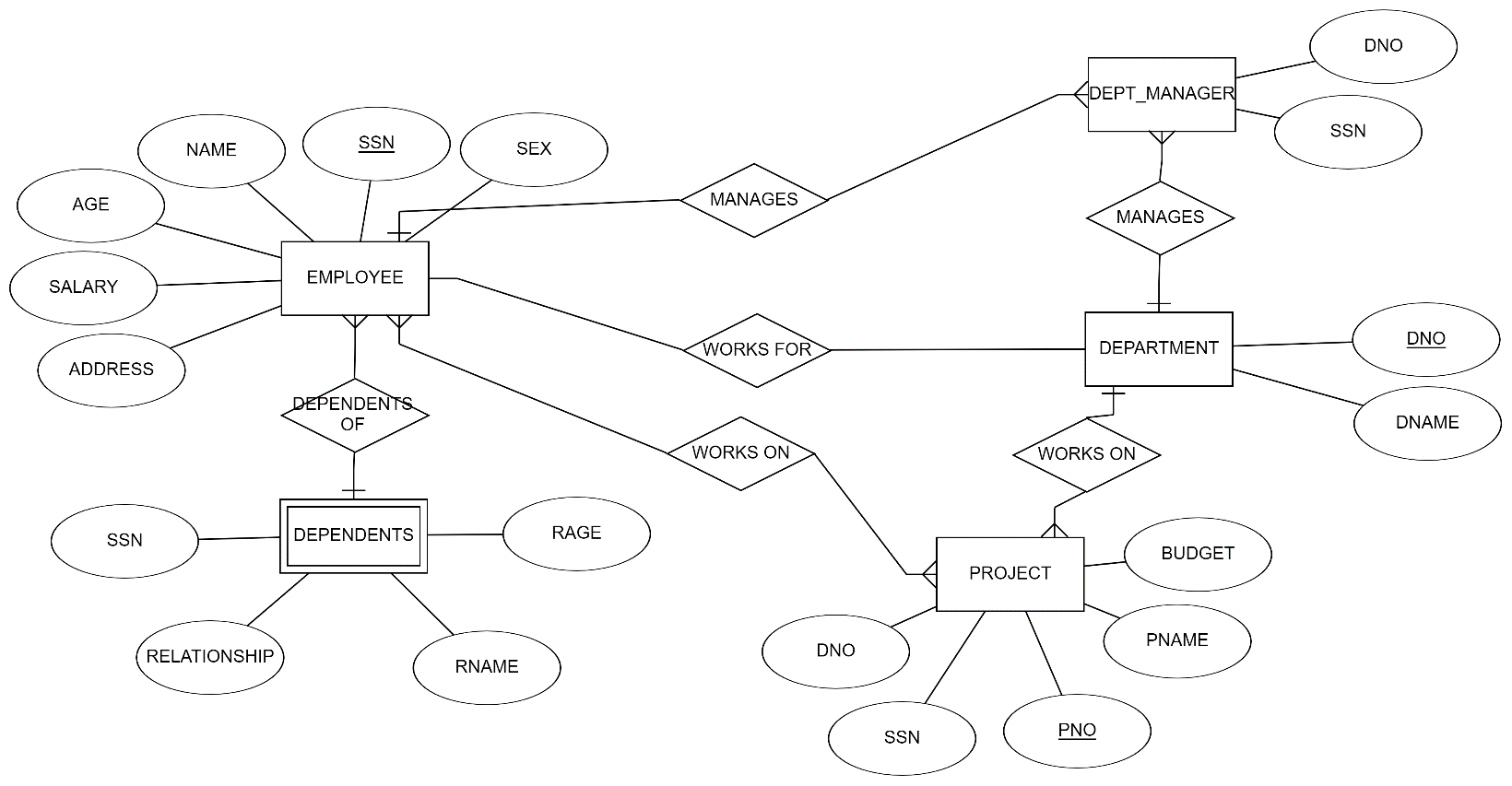
**Oracle Database 10g Express Edition:**

* **Oracle 10g PC Minimum Hardware Requirements:**

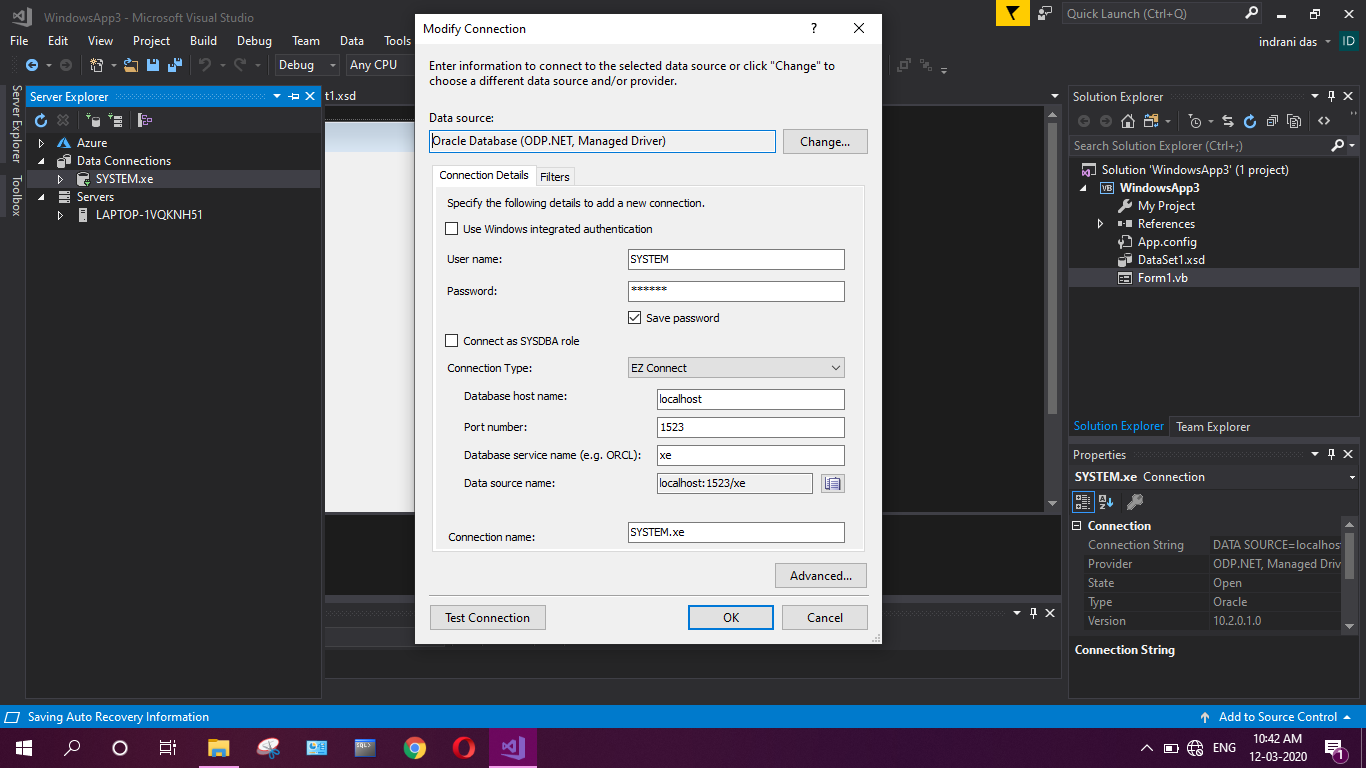
|  |  |
| --- | --- |
| Physical memory (RAM) | 512 MB recommended |
| Virtual memory | Double the amount of RAM |
| Temp disk space | Hard disk space 1.5 GB |
| Video adapter | 256 colors |
| CPU Processor | 200 MHz minimum |

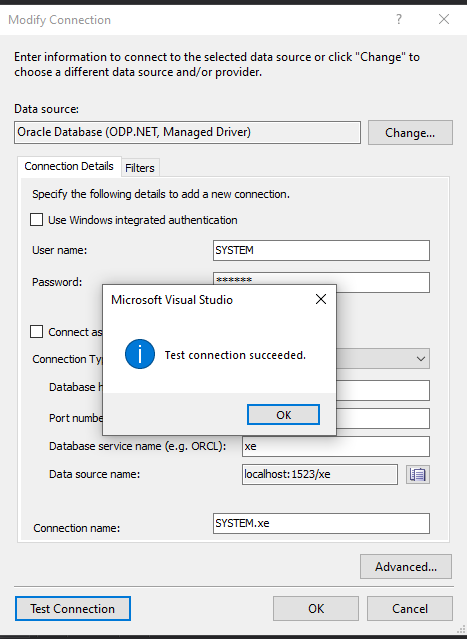
* **Oracle 10g Minimum Windows System Requirements:**

|  |  |
| --- | --- |
| Architecture | 32 bit or 64 bit |
| Windows OS | - Windows NT Server 4.0 - Windows NT Server Enterprise Ed. 4.0 - Windows NTTerminal Server Edition with SP 6 - Windows 2000 with SP 1 or higher - Windows Server 2003 - Windows XP Professional |
| Network protocol | - TCP/IP - TCP/IP with SSL - Named Pipes |

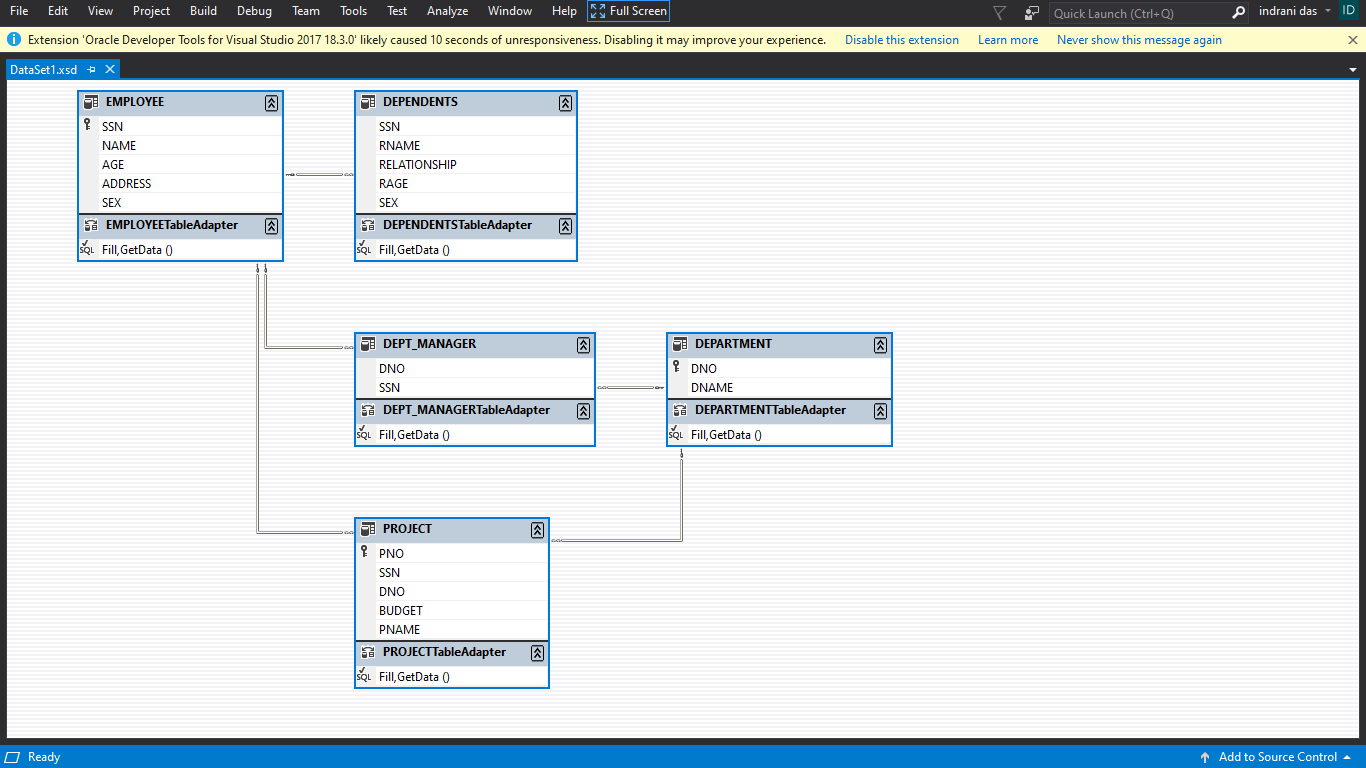
**E-R DIAGRAM:** By defining the entities, their attributes, and showing the relationships between them, an ER diagram illustrates the logical structure of database

**CONNECTION:**





XML SCHEMA:

****An XML Schema describes the structure of an XML document. The XML Schema language is also referred to as XML Schema Definition (XSD).

**CODING/XML SCHEMA:**

<?xmlversion="1.0encoding="utf-8"?>

<xs:schema id="DataSet1" targetNamespace="http://tempuri.org/DataSet1.xsd" xmlns:mstns="http://tempuri.org/DataSet1.xsd" xmlns="http://tempuri.org/DataSet1.xsd" xmlns:xs="http://www.w3.org/2001/XMLSchema" xmlns:msdata="urn:schemas-microsoft-com:xml-msdata" xmlns:msprop="urn:schemas-microsoft-com:xml-msprop" attributeFormDefault="qualified" elementFormDefault="qualified">

<xs:annotation>

<xs:appinfo source="urn:schemas-microsoft-com:xml-msdatasource">

<DataSource DefaultConnectionIndex="0" FunctionsComponentName="QueriesTableAdapter" Modifier="AutoLayout, AnsiClass, Class, Public" SchemaSerializationMode="IncludeSchema" xmlns="urn:schemas-microsoft-com:xml-msdatasource">

<Connections>

<Connection AppSettingsObjectName="MySettings" AppSettingsPropertyName="ConnectionString" ConnectionStringObject="" IsAppSettingsProperty="true" Modifier="Assembly" Name="ConnectionString (MySettings)" ParameterPrefix=":" PropertyReference="ApplicationSettings.company2.My.MySettings.GlobalReference.Default.ConnectionString" Provider="Oracle.ManagedDataAccess.Client" />

</Connections>

<Tables>

<TableAdapter BaseClass="System.ComponentModel.Component" DataAccessorModifier="AutoLayout, AnsiClass, Class, Public" DataAccessorName="EMPLOYEETableAdapter" GeneratorDataComponentClassName="EMPLOYEETableAdapter" Name="EMPLOYEE" UserDataComponentName="EMPLOYEETableAdapter">

<MainSource>

<DbSource ConnectionRef="ConnectionString (MySettings)" DbObjectName="SYSTEM.EMPLOYEE" DbObjectType="Table" FillMethodModifier="Public" FillMethodName="Fill" GenerateMethods="Both" GenerateShortCommands="true" GeneratorGetMethodName="GetData" GeneratorSourceName="Fill" GetMethodModifier="Public" GetMethodName="GetData" QueryType="Rowset" ScalarCallRetval="System.Object, mscorlib, Version=4.0.0.0, Culture=neutral, PublicKeyToken=b77a5c561934e089" UseOptimisticConcurrency="true" UserGetMethodName="GetData" UserSourceName="Fill">

<DeleteCommand>

<DbCommand CommandType="Text" ModifiedByUser="false">

<CommandText>DELETE FROM "SYSTEM"."EMPLOYEE" WHERE (("SSN" = :Original\_SSN) AND ((:IsNull\_NAME = 1 AND "NAME" IS NULL) OR ("NAME" = :Original\_NAME)) AND ((:IsNull\_AGE = 1 AND "AGE" IS NULL) OR ("AGE" = :Original\_AGE)) AND ((:IsNull\_SALARY = 1 AND "SALARY" IS NULL) OR ("SALARY" = :Original\_SALARY)) AND ((:IsNull\_ADDRESS = 1 AND "ADDRESS" IS NULL) OR ("ADDRESS" = :Original\_ADDRESS)) AND ((:IsNull\_DESIGNATION = 1 AND "DESIGNATION" IS NULL) OR ("DESIGNATION" = :Original\_DESIGNATION)) AND ((:IsNull\_SEX = 1 AND "SEX" IS NULL) OR ("SEX" = :Original\_SEX)))</Command <Parameters>

<Parameter AllowDbNull="false" AutogeneratedName="" DataSourceName="" DbType="String" Direction="Input" ParameterName="Original\_SSN" Precision="0" ProviderType="Varchar2" Scale="0" Size="5" SourceColumn="SSN" SourceColumnNullMapping="false" SourceVersion="Original" />

<Parameter AllowDbNull="true" AutogeneratedName="" DataSourceName="" DbType="Int32" Direction="Input" ParameterName="IsNull\_NAME" Precision="0" ProviderType="Int32" Scale="0" Size="10" SourceColumn="NAME" SourceColumnNullMapping="true" SourceVersion="Original" />

<Parameter AllowDbNull="true" AutogeneratedName="" DataSourceName="" DbType="String" Direction="Input" ParameterName="Original\_NAME" Precision="0" ProviderType="Varchar2" Scale="0" Size="10" SourceColumn="NAME" SourceColumnNullMapping="false" SourceVersion="Original" />

<Parameter AllowDbNull="true" AutogeneratedName="" DataSourceName="" DbType="Int32" Direction="Input" ParameterName="IsNull\_AGE" Precision="0" ProviderType="Int32" Scale="0" Size="22" SourceColumn="AGE" SourceColumnNullMapping="true" SourceVersion="Original" />

<Parameter AllowDbNull="true" AutogeneratedName="" DataSourceName="" DbType="Int16" Direction="Input" ParameterName="Original\_AGE" Precision="0" ProviderType="Int16" Scale="0" Size="22" SourceColumn="AGE" SourceColumnNullMapping="false" SourceVersion="Original" />

<Parameter AllowDbNull="true" AutogeneratedName="" DataSourceName="" DbType="Int32" Direction="Input" ParameterName="IsNull\_SALARY" Precision="0" ProviderType="Int32" Scale="0" Size="22" SourceColumn="SALARY" SourceColumnNullMapping="true" SourceVersion="Original" />

<Parameter AllowDbNull="true" AutogeneratedName="" DataSourceName="" DbType="Int32" Direction="Input" ParameterName="Original\_SALARY" Precision="0" ProviderType="Int32" Scale="0" Size="22" SourceColumn="SALARY" SourceColumnNullMapping="false" SourceVersion="Original" />

<Parameter AllowDbNull="true" AutogeneratedName="" DataSourceName="" DbType="Int32" Direction="Input" ParameterName="IsNull\_ADDRESS" Precision="0" ProviderType="Int32" Scale="0" Size="10" SourceColumn="ADDRESS" SourceColumnNullMapping="true" SourceVersion="Original" />

<Parameter AllowDbNull="true" AutogeneratedName="" DataSourceName="" DbType="String" Direction="Input" ParameterName="Original\_ADDRESS" Precision="0" ProviderType="Varchar2" Scale="0" Size="10" SourceColumn="ADDRESS" SourceColumnNullMapping="false" SourceVersion="Original" />

<Parameter AllowDbNull="true" AutogeneratedName="" DataSourceName="" DbType="Int32" Direction="Input" ParameterName="IsNull\_DESIGNATION" Precision="0" ProviderType="Int32" Scale="0" Size="10" SourceColumn="DESIGNATION" SourceColumnNullMapping="true" SourceVersion="Original" />

<Parameter AllowDbNull="true" AutogeneratedName="" DataSourceName="" DbType="String" Direction="Input" ParameterName="Original\_DESIGNATION" Precision="0" ProviderType="Varchar2" Scale="0" Size="10" SourceColumn="DESIGNATION" SourceColumnNullMapping="false" SourceVersion="Original" />

<Parameter AllowDbNull="true" AutogeneratedName="" DataSourceName="" DbType="Int32" Direction="Input" ParameterName="IsNull\_SEX" Precision="0" ProviderType="Int32" Scale="0" Size="2" SourceColumn="SEX" SourceColumnNullMapping="true" SourceVersion="Original" />

<Parameter AllowDbNull="true" AutogeneratedName="" DataSourceName="" DbType="String" Direction="Input" ParameterName="Original\_SEX" Precision="0" ProviderType="Varchar2" Scale="0" Size="2" SourceColumn="SEX" SourceColumnNullMapping="false" SourceVersion="Original" />

</Parameters>

</DbCommand>

</DeleteCommand>

<InsertCommand>

<DbCommand CommandType="Text" ModifiedByUser="false">

<CommandText>INSERT INTO "SYSTEM"."EMPLOYEE" ("SSN", "NAME", "AGE", "SALARY", "ADDRESS", "DESIGNATION", "SEX") VALUES (:SSN, :NAME, :AGE, :SALARY, :ADDRESS, :DESIGNATION, :SEX)</CommandText>

<Parameters>

<Parameter AllowDbNull="false" AutogeneratedName="" DataSourceName="" DbType="String" Direction="Input" ParameterName="SSN" Precision="0" ProviderType="Varchar2" Scale="0" Size="5" SourceColumn="SSN" SourceColumnNullMapping="false" SourceVersion="Current" />

<Parameter AllowDbNull="true" AutogeneratedName="" DataSourceName="" DbType="String" Direction="Input" ParameterName="NAME" Precision="0" ProviderType="Varchar2" Scale="0" Size="10" SourceColumn="NAME" SourceColumnNullMapping="false" SourceVersion="Current" />

<Parameter AllowDbNull="true" AutogeneratedName="" DataSourceName="" DbType="Int16" Direction="Input" ParameterName="AGE" Precision="0" ProviderType="Int16" Scale="0" Size="22" SourceColumn="AGE" SourceColumnNullMapping="false" SourceVersion="Current" />

<Parameter AllowDbNull="true" AutogeneratedName="" DataSourceName="" DbType="Int32" Direction="Input" ParameterName="SALARY" Precision="0" ProviderType="Int32" Scale="0" Size="22" SourceColumn="SALARY" SourceColumnNullMapping="false" SourceVersion="Current" />

<Parameter AllowDbNull="true" AutogeneratedName="" DataSourceName="" DbType="String" Direction="Input" ParameterName="ADDRESS" Precision="0" ProviderType="Varchar2" Scale="0" Size="10" SourceColumn="ADDRESS" SourceColumnNullMapping="false" SourceVersion="Current" />

<Parameter AllowDbNull="true" AutogeneratedName="" DataSourceName="" DbType="String" Direction="Input" ParameterName="DESIGNATION" Precision="0" ProviderType="Varchar2" Scale="0" Size="10" SourceColumn="DESIGNATION" SourceColumnNullMapping="false" SourceVersion="Current" />

<Parameter AllowDbNull="true" AutogeneratedName="" DataSourceName="" DbType="String" Direction="Input" ParameterName="SEX" Precision="0" ProviderType="Varchar2" Scale="0" Size="2" SourceColumn="SEX" SourceColumnNullMapping="false" SourceVersion="Current" />

</Parameters>

</DbCommand>

</InsertCommand>

<SelectCommand>

<DbCommand CommandType="Text" ModifiedByUser="false">

<CommandText>SELECT SSN, "NAME", AGE, SALARY, ADDRESS, DESIGNATION, SEX FROM SYSTEM.EMPLOYEE</CommandText>

<Parameters />

</DbCommand>

</SelectCommand>

<UpdateCommand>

<DbCommand CommandType="Text" ModifiedByUser="false">

<CommandText>UPDATE "SYSTEM"."EMPLOYEE" SET "SSN" = :SSN, "NAME" = :NAME, "AGE" = :AGE, "SALARY" = :SALARY, "ADDRESS" = :ADDRESS, "DESIGNATION" = :DESIGNATION, "SEX" = :SEX WHERE (("SSN" = :Original\_SSN) AND ((:IsNull\_NAME = 1 AND "NAME" IS NULL) OR ("NAME" = :Original\_NAME)) AND ((:IsNull\_AGE = 1 AND "AGE" IS NULL) OR ("AGE" = :Original\_AGE)) AND ((:IsNull\_SALARY = 1 AND "SALARY" IS NULL) OR ("SALARY" = :Original\_SALARY)) AND ((:IsNull\_ADDRESS = 1 AND "ADDRESS" IS NULL) OR ("ADDRESS" = :Original\_ADDRESS)) AND ((:IsNull\_DESIGNATION = 1 AND "DESIGNATION" IS NULL) OR ("DESIGNATION" = :Original\_DESIGNATION)) AND ((:IsNull\_SEX = 1 AND "SEX" IS NULL) OR ("SEX" = :Original\_SEX)))</CommandText>

<Parameters>

<Parameter AllowDbNull="false" AutogeneratedName="" DataSourceName="" DbType="String" Direction="Input" ParameterName="SSN" Precision="0" ProviderType="Varchar2" Scale="0" Size="5" SourceColumn="SSN" SourceColumnNullMapping="false" SourceVersion="Current" />

<Parameter AllowDbNull="true" AutogeneratedName="" DataSourceName="" DbType="String" Direction="Input" ParameterName="NAME" Precision="0" ProviderType="Varchar2" Scale="0" Size="10" SourceColumn="NAME" SourceColumnNullMapping="false" SourceVersion="Current" />

<Parameter AllowDbNull="true" AutogeneratedName="" DataSourceName="" DbType="Int16" Direction="Input" ParameterName="AGE" Precision="0" ProviderType="Int16" Scale="0" Size="22" SourceColumn="AGE" SourceColumnNullMapping="false" SourceVersion="Current" />

<Parameter AllowDbNull="true" AutogeneratedName="" DataSourceName="" DbType="Int32" Direction="Input" ParameterName="SALARY" Precision="0" ProviderType="Int32" Scale="0" Size="22" SourceColumn="SALARY" SourceColumnNullMapping="false" SourceVersion="Current" />

<Parameter AllowDbNull="true" AutogeneratedName="" DataSourceName="" DbType="String" Direction="Input" ParameterName="ADDRESS" Precision="0" ProviderType="Varchar2" Scale="0" Size="10" SourceColumn="ADDRESS" SourceColumnNullMapping="false" SourceVersion="Current" />

<Parameter AllowDbNull="true" AutogeneratedName="" DataSourceName="" DbType="String" Direction="Input" ParameterName="DESIGNATION" Precision="0" ProviderType="Varchar2" Scale="0" Size="10" SourceColumn="DESIGNATION" SourceColumnNullMapping="false" SourceVersion="Current" />

<Parameter AllowDbNull="true" AutogeneratedName="" DataSourceName="" DbType="String" Direction="Input" ParameterName="SEX" Precision="0" ProviderType="Varchar2" Scale="0" Size="2" SourceColumn="SEX" SourceColumnNullMapping="false" SourceVersion="Current" />

<Parameter AllowDbNull="false" AutogeneratedName="" DataSourceName="" DbType="String" Direction="Input" ParameterName="Original\_SSN" Precision="0" ProviderType="Varchar2" Scale="0" Size="5" SourceColumn="SSN" SourceColumnNullMapping="false" SourceVersion="Original" />

<Parameter AllowDbNull="true" AutogeneratedName="" DataSourceName="" DbType="Int32" Direction="Input" ParameterName="IsNull\_NAME" Precision="0" ProviderType="Int32" Scale="0" Size="10" SourceColumn="NAME" SourceColumnNullMapping="true" SourceVersion="Original" />

<Parameter AllowDbNull="true" AutogeneratedName="" DataSourceName="" DbType="String" Direction="Input" ParameterName="Original\_NAME" Precision="0" ProviderType="Varchar2" Scale="0" Size="10" SourceColumn="NAME" SourceColumnNullMapping="false" SourceVersion="Original" />

<Parameter AllowDbNull="true" AutogeneratedName="" DataSourceName="" DbType="Int32" Direction="Input" ParameterName="IsNull\_AGE" Precision="0" ProviderType="Int32" Scale="0" Size="22" SourceColumn="AGE" SourceColumnNullMapping="true" SourceVersion="Original" />

<Parameter AllowDbNull="true" AutogeneratedName="" DataSourceName="" DbType="Int16" Direction="Input" ParameterName="Original\_AGE" Precision="0" ProviderType="Int16" Scale="0" Size="22" SourceColumn="AGE" SourceColumnNullMapping="false" SourceVersion="Original" />

<Parameter AllowDbNull="true" AutogeneratedName="" DataSourceName="" DbType="Int32" Direction="Input" ParameterName="IsNull\_SALARY" Precision="0" ProviderType="Int32" Scale="0" Size="22" SourceColumn="SALARY" SourceColumnNullMapping="true" SourceVersion="Original" />

<Parameter AllowDbNull="true" AutogeneratedName="" DataSourceName="" DbType="Int32" Direction="Input" ParameterName="Original\_SALARY" Precision="0" ProviderType="Int32" Scale="0" Size="22" SourceColumn="SALARY" SourceColumnNullMapping="false" SourceVersion="Original" />

<Parameter AllowDbNull="true" AutogeneratedName="" DataSourceName="" DbType="Int32" Direction="Input" ParameterName="IsNull\_ADDRESS" Precision="0" ProviderType="Int32" Scale="0" Size="10" SourceColumn="ADDRESS" SourceColumnNullMapping="true" SourceVersion="Original" />

<Parameter AllowDbNull="true" AutogeneratedName="" DataSourceName="" DbType="String" Direction="Input" ParameterName="Original\_ADDRESS" Precision="0" ProviderType="Varchar2" Scale="0" Size="10" SourceColumn="ADDRESS" SourceColumnNullMapping="false" SourceVersion="Original" />

<Parameter AllowDbNull="true" AutogeneratedName="" DataSourceName="" DbType="Int32" Direction="Input" ParameterName="IsNull\_DESIGNATION" Precision="0" ProviderType="Int32" Scale="0" Size="10" SourceColumn="DESIGNATION" SourceColumnNullMapping="true" SourceVersion="Original" />

<Parameter AllowDbNull="true" AutogeneratedName="" DataSourceName="" DbType="String" Direction="Input" ParameterName="Original\_DESIGNATION" Precision="0" ProviderType="Varchar2" Scale="0" Size="10" SourceColumn="DESIGNATION" SourceColumnNullMapping="false" SourceVersion="Original" />

<Parameter AllowDbNull="true" AutogeneratedName="" DataSourceName="" DbType="Int32" Direction="Input" ParameterName="IsNull\_SEX" Precision="0" ProviderType="Int32" Scale="0" Size="2" SourceColumn="SEX" SourceColumnNullMapping="true" SourceVersion="Original" />

<Parameter AllowDbNull="true" AutogeneratedName="" DataSourceName="" DbType="String" Direction="Input" ParameterName="Original\_SEX" Precision="0" ProviderType="Varchar2" Scale="0" Size="2" SourceColumn="SEX" SourceColumnNullMapping="false" SourceVersion="Original </Parameters>

</DbCommand>

</UpdateCommand>

</DbSource>

</MainSource>

<Mappings>

<Mapping SourceColumn="SSN" DataSetColumn="SSN" />

<Mapping SourceColumn="NAME" DataSetColumn="NAME" />

<Mapping SourceColumn="AGE" DataSetColumn="AGE" />

<Mapping SourceColumn="SALARY" DataSetColumn="SALARY" />

<Mapping SourceColumn="ADDRESS" DataSetColumn="ADDRESS" />

<Mapping SourceColumn="DESIGNATION" DataSetColumn="DESIGNATION" />

<Mapping SourceColumn="SEX" DataSetColumn="SEX" />

</Mappings>

<Sources />

</TableAdapter>

</Tables>

<Sources />

</DataSource>

</xs:appinfo>

</xs:annotation>

<xs:element name="DataSet1" msdata:IsDataSet="true" msdata:UseCurrentLocale="true" msprop:EnableTableAdapterManager="True" msprop:Generator\_DataSetName="DataSet1" msprop:Generator\_UserDSName="DataSet1">

<xs:complexType>

<xs:choice minOccurs="0" maxOccurs="unbounded">

<xs:element name="EMPLOYEE" msprop:Generator\_TableClassName="EMPLOYEEDataTable" msprop:Generator\_TableVarName="tableEMPLOYEE" msprop:Generator\_TablePropName="EMPLOYEE" msprop:Generator\_RowDeletingName="EMPLOYEERowDeleting" msprop:Generator\_RowChangingName="EMPLOYEERowChanging" msprop:Generator\_RowEvHandlerName="EMPLOYEERowChangeEventHandler" msprop:Generator\_RowDeletedName="EMPLOYEERowDeleted" msprop:Generator\_UserTableName="EMPLOYEE" msprop:Generator\_RowChangedName="EMPLOYEERowChanged" msprop:Generator\_RowEvArgName="EMPLOYEERowChangeEvent" msprop:Generator\_RowClassName="EMPLOYEERow">

<xs:complexType>

<xs:sequence>

<xs:element name="SSN" msprop:Generator\_ColumnVarNameInTable="columnSSN" msprop:Generator\_ColumnPropNameInRow="SSN" msprop:Generator\_ColumnPropNameInTable="SSNColumn" msprop:Generator\_UserColumnName="SSN">

<xs:simpleType>

<xs:restriction base="xs:string">

<xs:maxLength value="5" />

</xs:restriction>

</xs:simpleType>

</xs:element>

<xs:element name="NAME" msprop:Generator\_ColumnVarNameInTable="columnNAME" msprop:Generator\_ColumnPropNameInRow="NAME" msprop:Generator\_ColumnPropNameInTable="NAMEColumn" msprop:Generator\_UserColumnName="NAME" minOccurs="0">

<xs:simpleType>

<xs:restriction base="xs:string">

<xs:maxLength value="10" />

</xs:restriction>

</xs:simpleType>

</xs:element>

<xs:element name="AGE" msprop:Generator\_ColumnVarNameInTable="columnAGE" msprop:Generator\_ColumnPropNameInRow="AGE" msprop:Generator\_ColumnPropNameInTable="AGEColumn" msprop:Generator\_UserColumnName="AGE" type="xs:short" minOccurs="0" />

<xs:element name="SALARY" msprop:Generator\_ColumnVarNameInTable="columnSALARY" msprop:Generator\_ColumnPropNameInRow="SALARY" msprop:Generator\_ColumnPropNameInTable="SALARYColumn" msprop:Generator\_UserColumnName="SALARY" type="xs:int" minOccurs="0" />

<xs:element name="ADDRESS" msprop:Generator\_ColumnVarNameInTable="columnADDRESS" msprop:Generator\_ColumnPropNameInRow="ADDRESS" msprop:Generator\_ColumnPropNameInTable="ADDRESSColumn" msprop:Generator\_UserColumnName="ADDRESS" minOccurs="0">

<xs:simpleType>

<xs:restriction base="xs:string">

<xs:maxLength value="10" />

</xs:restriction>

</xs:simpleType>

</xs:element>

<xs:element name="DESIGNATION" msprop:Generator\_ColumnVarNameInTable="columnDESIGNATION" msprop:Generator\_ColumnPropNameInRow="DESIGNATION" msprop:Generator\_ColumnPropNameInTable="DESIGNATIONColumn" msprop:Generator\_UserColumnName="DESIGNATION" minOccurs="0">

<xs:simpleType>

<xs:restriction base="xs:string">

<xs:maxLength value="10" />

</xs:restriction>

</xs:simpleType>

</xs:element>

<xs:element name="SEX" msprop:Generator\_ColumnVarNameInTable="columnSEX" msprop:Generator\_ColumnPropNameInRow="SEX" msprop:Generator\_ColumnPropNameInTable="SEXColumn" msprop:Generator\_UserColumnName="SEX" minOccurs="0">

<xs:simpleType>

<xs:restriction base="xs:string">

<xs:maxLength value="2" />

</xs:restriction>

</xs:simpleType>

</xs:element>

</xs:sequence>

</xs:complexType>

</xs:element>

</xs:choice>

</xs:complexType>

<xs:unique name="Constraint1" msdata:PrimaryKey="true">

<xs:selector xpath=".//mstns:EMPLOYEE" />

<xs:field xpath="mstns:SSN" />

</xs:unique

</xs:element>

</xs:schema>