JAVA AWT BASED -E-VOTING SYSTEM-SQL CONNECTIVITY USING JDBC

A

Report

submitted in partial fulfilment of

BE IV SEMESTER DATABASE MANAGEMENT SYSTEM LAB

INFORMATION TECHNOLOGY

By

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BONAFIDE CERTIFICATE

This is to certify that this project report titled "**E-Voting System"** is the bonafide mini project work of V.SWETHA REDDY bearing hall ticket number 1602-18-737-110 under the guidance of B. Leelavathy during 4th semester B.E for the academic year 2019-2020.

External Examiner **Internal Examiner**

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AIM AND PRIORITY OF THE PROJECT:

To create a GUI form for the project of E-VOTING SYSTEM where in the user registers and were given his credentials. The user can cast his vote without going to the polling booth using his credentials(login ID and password).

The values entered (insertion, updation, deletion) by the admin for respective table in GUI should be updated in the database using **JDBC**.

ABSTRACT:

Online voting is a web-based voting system that will help to manage elections easily and securely. In this system the voter do not have to go the polling booth to cast their vote. They can use their personal computer to cast their vote. There is a database which is maintained in which all the names of voters with their complete information is stored. The system administrator registers the voters and candidates. After registration, the voter is assigned with a user id with which he/she can use to login and cast their vote.

INTRODUCTION:

REQUIREMENTS:

List of Tables:

- ADMIN
- MANAGES
- LOGIN
- USERS
- VOTERS
- CANDIDATES

List of attributes with their domain types:

Admin:

Admin id: aid-Number()

Manages:

Admin id: aid-Number()

User id: user_id-Number()

Aadhar No.: aadhar_no-Number()

Login:

User id: user_id-Number()

Password: password-Varchar()

Users:

User id: user_id-Number()

Name: name -Varchar()

Date of Birth: dob-varchar()

Gender: gender-Varchar()

Aadhar No.: aadhar_no-Number()

Voter id: voter_id-Number()

Address: address-Varchar()

Voters:

User id: user_id-Number()

Aadhar No.: aadhar_no-Varchar()

Candidates:

Candidate id: cid-Number()

User id: user_id-Number()

Aadhar No.: aadhar_no-Number()

Symbol: symbol-Varchar()

ARCHITECTURE AND TECHNOLOGY USED:

Java Eclipse, Oracle 11g Database, java SE version 8, SQL *plus, java AWT

Eclipse:

It is an integrated development environment (IDE) used in computer programming. It contains a base workspace and an extensible plug in system for customizing the environment. The Eclipse software development kit (SDK), which include java development tools is meant for java developers.

SQL *plus:

SQL *plus is a command line tool proprietary to oracle. You can send SQL Queries to the server using the tool. It can also help you format the result of query. SQL is the query language that is used to communicate with the oracle server to access and modify data.

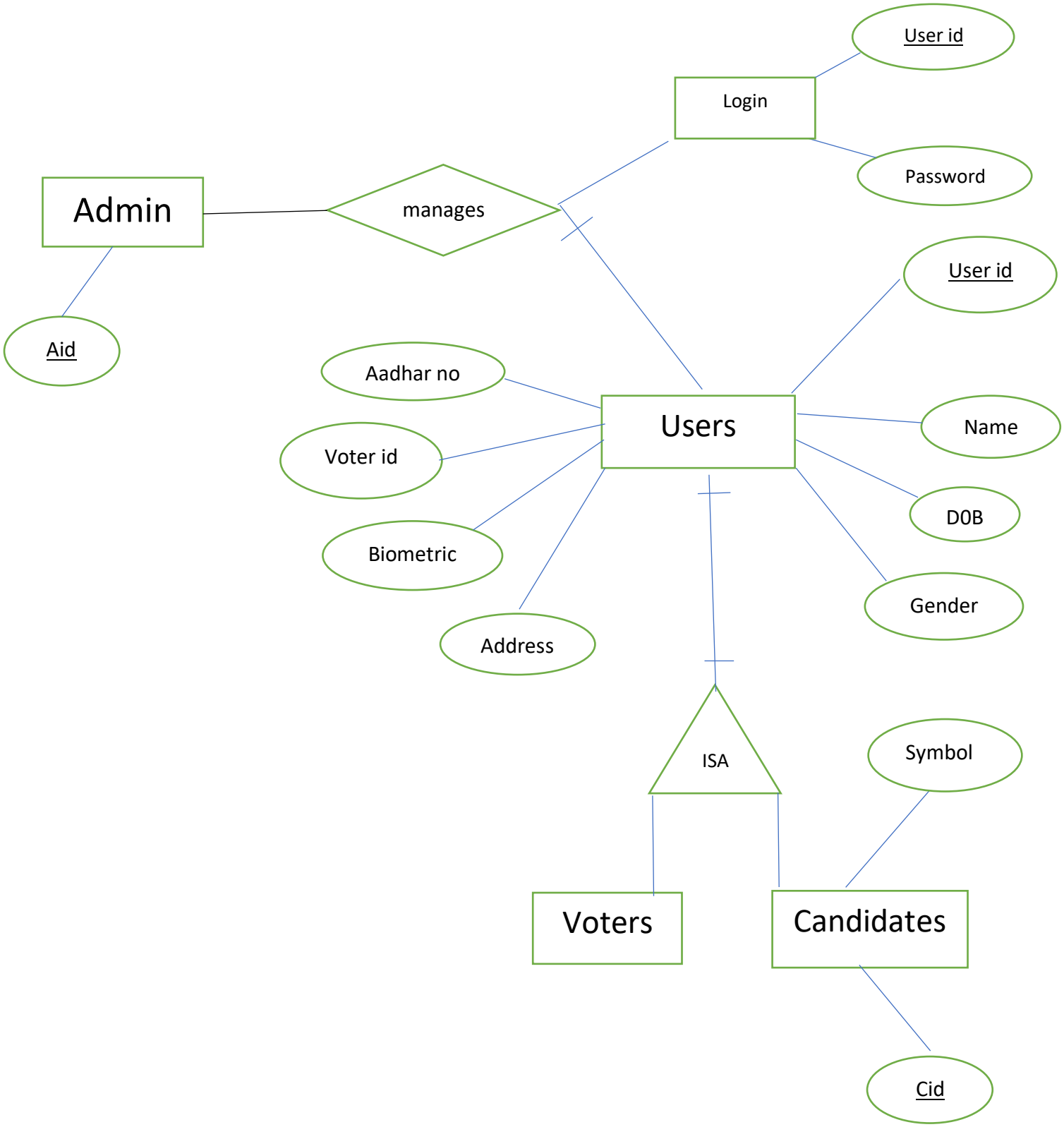
JAVA AWT:

Abstract window tool kit is an API to develop GUI or Window based applications in java. Java AWT components are platform dependent i.e components are displayed according to the view of operating system. AWT is heavy weight that is components are using the resources of O.S.

JDBC:

Java Database Connectivity is an application programming interface (API) for the programming language java , which defines how a client may access database. It is a java based data access technology used for java database connectivity. It is the part of java Standard Edition Platform, from oracle corporation.

ER DIAGRAM OF THIS PROJECT:



CREATION OF TABLES:

DDL COMMANDS:

SQL> create table admin(aid number(5),primary key(aid));

Table created.

SQL> create table users(user_id number(5),name varchar(15),dob varchar(10),gender varchar(2),aadhar_no number(5),voter_id number(5),address varchar(15),primary key(user_id,aadhar_no));

Table created.

SQL> create table login(user_id number(5),password varchar(5),primary key(user_id));

Table created.

SQL> create table manages(aid number(5),user_id number(5),aadhar_no number(5),foreign key(aid) references admin,foreign key(user_id,aadhar_no) references users);

Table created.

SQL> create table voters(user_id number(5),aadhar_no number(5),foreign key(user_id,aadhar_no) references users);

Table created.

SQL> create table candidates(cid number(5),user_id number(5),aadhar_no number(5),symbol varchar(20),foreign key(user_id,aadhar_no) references users);

Table created.

TABLES DESCRIPTION:

SQL> desc admin;

```
 Name                                      Null?    Type
 ----------------------------------------- -------- ----------------------------
 AID                                       NOT NULL NUMBER(5)
```

SQL> desc users;

```
 Name                                      Null?    Type
 ----------------------------------------- -------- ----------------------------
 USER_ID                                   NOT NULL NUMBER(5)
 NAME                                               VARCHAR2(15)
 DOB                                                VARCHAR2(10)
 GENDER                                             VARCHAR2(2)
 AADHAR_NO                                          NOT NULL NUMBER(5)
 VOTER_ID                                           NUMBER(5)
 ADDRESS                                            VARCHAR2(15)
```

SQL> desc login;

```
 Name                                      Null?    Type
```

```
 ----------------------------------------- -------- ----------------------------
 USER_ID                                   NOT NULL NUMBER(5)
 PASSWORD                                           VARCHAR2(5)
SQL> desc manages;
 Name                                      Null?    Type
 ----------------------------------------- -------- ----------------------------
 AID                                                NUMBER(5)
 USER_ID                                            NUMBER(5)
 AADHAR_NO                                          NUMBER(5)
SQL> desc voters;
 Name                                      Null?    Type
 ----------------------------------------- -------- ----------------------------
 USER_ID                                            NUMBER(5)
 AADHAR_NO                                          NUMBER(5)

SQL> desc candidates;
 Name                                      Null?    Type
 ----------------------------------------- -------- ----------------------------
 CID                                                NUMBER(5)
 USER_ID                                            NUMBER(5)
 AADHAR_NO                                          NUMBER(5)
 SYMBOL                                             VARCHAR2(20)
```

IMPLEMENTATION

1.FRONT END PROGRAMS AND CONNECTIVITY

JAVA-SQL CONNECTIVITY USING JDBC:

The connection to the database can be performed using java programming (JDBC API) as:

```
 public void connectToDB() {
        try {

connection=DriverManager.getConnection("jdbc:oracle:thin:@localhost:
1521:ORCL","swetha","vasavi");
statement = connection.createStatement();
}
catch (SQLException connectException) {
            System.out.println(connectException.getMessage());
            System.out.println(connectException.getSQLState());
            System.out.println(connectException.getErrorCode());
            System.exit(1);
}
catch(Exception e){
        System.out.println("Unable to find and load driver");
        System.exit(1);
} }
```

AS THIS PROJECT CONTAINS 6 TABLES

ADMIN ,MANAGES ,LOGIN ,USERS ,VOTERS ,CANDIDATES

BELOW IS THE CODE FOR ALL DML OPERATIONS ON THE TABLE USERS:

Insert USERS:

```
import java.awt.*;
import java.awt.event.*;
import java.sql.*;
public class InsertUser extends Frame
{
	Button insertUserButton;
	TextField useridText, nameText, dateofbirthText,
genderText,aadharnoText,voteridText,addressText;
	TextArea errorText;
	Connection connection;
	Statement statement;
	public InsertUser()
	{
		try
		{
			Class.forName("oracle.jdbc.driver.OracleDriver");
		}
		catch (Exception e)
		{
			System.err.println("Unable to find and load driver");
			System.exit(1);
		}
		connectToDB();
	}

	public void connectToDB()
    {
		try
		{
		  connection =
DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521:xe","swetha","vasavi
");
		  statement = connection.createStatement();

		}
		catch (SQLException connectException)
		{
		  System.out.println(connectException.getMessage());
		  System.out.println(connectException.getSQLState());
		  System.out.println(connectException.getErrorCode());
		  System.exit(1);
		}
    }
	public void buildGUI()
	{
		insertUserButton = new Button("Insert User");
		insertUserButton.addActionListener(new ActionListener()
		{
			public void actionPerformed(ActionEvent e)
			{
				try
				{
```

```
                                String query= "INSERT INTO users VALUES(" +
useridText.getText() + ", " + "'" + nameText.getText() + "'," + "'" +
dateofbirthText.getText() + "'," + "'" + genderText.getText() + "',"
+aadharnoText.getText() + "," +voteridText.getText() + "," + "'" +
addressText.getText() +"')";
                                int i = statement.executeUpdate(query);
                                errorText.append("\nInserted " + i + " rows
successfully");
                            }
                            catch (SQLException insertException)
                            {
                                displaySQLErrors(insertException);
                            }
                        }
                    });


                    useridText = new TextField(15);
                    nameText = new TextField(15);
                    dateofbirthText = new TextField(15);
                    genderText = new TextField(15);
                    aadharnoText = new TextField(15);
                    voteridText = new TextField(15);
                    addressText = new TextField(15);


                    errorText = new TextArea(10, 40);
                    errorText.setEditable(false);

                    Panel first = new Panel();
                    first.setLayout(new GridLayout(4, 2));
                    first.add(new Label("User ID:"));
                    first.add(useridText);
                    first.add(new Label("Name:"));
                    first.add(nameText);
                    first.add(new Label("Date of Birth:"));
                    first.add(dateofbirthText);
                    first.add(new Label("Gender:"));
                    first.add(genderText);
                    first.add(new Label("Aadhar No.:"));
                    first.add(aadharnoText);
                    first.add(new Label("Voter ID:"));
                    first.add(voteridText);
                    first.add(new Label("Address:"));
                    first.add(addressText);
                    first.setBounds(150,90,200,100);

                    Panel second = new Panel(new GridLayout(4, 1));
                    second.add(insertUserButton);
                second.setBounds(150,220,150,100);

                    Panel third = new Panel();
                    third.add(errorText);
                    third.setBounds(150,320,300,200);

                    setLayout(null);

                    add(first);
                    add(second);
```

```
            add(third);

            setTitle("New User Creation");
            setSize(600,750);
            setVisible(true);
        }



        private void displaySQLErrors(SQLException e)
        {
            errorText.append("\nSQLException: " + e.getMessage() + "\n");
            errorText.append("SQLState:     " + e.getSQLState() + "\n");
            errorText.append("VendorError:  " + e.getErrorCode() + "\n");
        }



        public static void main(String[] args)
        {
            InsertUser inu = new InsertUser();

            inu.addWindowListener(new WindowAdapter(){
              public void windowClosing(WindowEvent e)
              {
                  System.exit(0);
              }
            });

            inu.buildGUI();
        }
}
```

UPDATE USERS:

```
import java.awt.*;
import java.awt.event.*;
import java.sql.*;
public class UpdateUser extends Frame
{
        Button updateUserButton;
        List userIDList;
        TextField useridText, nameText,dateofbirthText,
genderText,aadharnoText,voteridText,addressText;
        TextArea errorText;
        Connection connection;
        Statement statement;
        ResultSet rs;

        public UpdateUser()
        {
            try
            {
                Class.forName("oracle.jdbc.driver.OracleDriver");
            }
            catch (Exception e)
            {
                System.err.println("Unable to find and load driver");
                System.exit(1);
```

```
            }
            connectToDB();
        }

        public void connectToDB()
    {
            try
            {
              connection =
DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521:xe","swetha","vasavi
");
              statement = connection.createStatement();

            }
            catch (SQLException connectException)
            {
              System.out.println(connectException.getMessage());
              System.out.println(connectException.getSQLState());
              System.out.println(connectException.getErrorCode());
              System.exit(1);
            }
    }

        private void loadUsers()
        {
            try
            {
              rs = statement.executeQuery("SELECT user_id FROM users");
              while (rs.next())
              {
                  userIDList.add(rs.getString("user_id"));
              }
            }
            catch (SQLException e)
            {
              displaySQLErrors(e);
            }
        }

        public void buildGUI()
        {
            userIDList = new List(10);
              loadUsers();
              add(userIDList);

              userIDList.addItemListener(new ItemListener()
              {
                    public void itemStateChanged(ItemEvent e)
                    {
                          try
                          {
                                rs = statement.executeQuery("SELECT * FROM users
where user_id ="+userIDList.getSelectedItem());
                                rs.next();
                                useridText.setText(rs.getString("user_id"));
                                nameText.setText(rs.getString("name"));
                                dateofbirthText.setText(rs.getString("dob"));
                                genderText.setText(rs.getString("gender"));
                                aadharnoText.setText(rs.getString("aadhar_no"));
```

```
                                voteridText.setText(rs.getString("voter_id"));
                                addressText.setText(rs.getString("address"));

                        }
                        catch (SQLException selectException)
                        {
                                displaySQLErrors(selectException);
                        }
                }
        });



        updateUserButton = new Button("Update User");
        updateUserButton.addActionListener(new ActionListener()
        {
                public void actionPerformed(ActionEvent e)
                {
                        try
                        {
                                Statement statement =
connection.createStatement();
                                int i = statement.executeUpdate("UPDATE users "
                                                + "SET name='" + nameText.getText()
+ "', "
                                                + "dob='" +
dateofbirthText.getText() + "', "
                                                + "gender='"+ genderText.getText() +
"'," + "aadhar_no = "+aadharnoText.getText()
                                                 + "," +"voter_id =
"+voteridText.getText() + ","
                                                 + "address='" +
addressText.getText() + "' WHERE user_id = "
                                                + userIDList.getSelectedItem());
                                errorText.append("\nUpdated " + i + " rows
successfully");
                                userIDList.removeAll();
                                loadUsers();
                        }
                        catch (SQLException insertException)
                        {
                                displaySQLErrors(insertException);
                        }
                }
        });

        useridText = new TextField(15);
        useridText.setEditable(false);
        nameText = new TextField(15);
        dateofbirthText = new TextField(15);
        genderText = new TextField(15);
        aadharnoText = new TextField(15);
        voteridText = new TextField(15);
        addressText = new TextField(15);

        errorText = new TextArea(10, 40);
        errorText.setEditable(false);

        Panel first = new Panel();
```

```
            first.setLayout(new GridLayout(4, 2));
            first.add(new Label("User ID:"));
            first.add(useridText);
            first.add(new Label("Name"));
            first.add(nameText);
            first.add(new Label("Date of Birth"));
            first.add(dateofbirthText);
            first.add(new Label("Gender"));
            first.add(genderText);
            first.add(new Label("Aadhar No.:"));
            first.add(aadharnoText);
            first.add(new Label("Voter ID:"));
            first.add(voteridText);
            first.add(new Label("Address"));
            first.add(addressText);

            Panel second = new Panel(new GridLayout(4, 1));
            second.add(updateUserButton);

            Panel third = new Panel();
            third.add(errorText);

            add(first);
            add(second);
            add(third);

            setTitle("Update User");
            setSize(600, 800);
            setLayout(new FlowLayout());
            setVisible(true);

        }

        private void displaySQLErrors(SQLException e)
        {
            errorText.append("\nSQLException: " + e.getMessage() + "\n");
            errorText.append("SQLState:     " + e.getSQLState() + "\n");
            errorText.append("VendorError:  " + e.getErrorCode() + "\n");
        }

        public static void main(String[] args)
        {
            UpdateUser upu = new UpdateUser();

            upu.addWindowListener(new WindowAdapter(){
              public void windowClosing(WindowEvent e)
              {
                  System.exit(0);
              }
            });

            upu.buildGUI();
        }
}
```

DELETE USERS:

```
import java.awt.*;
import java.awt.event.*;
```

```java
import java.sql.*;
public class DeleteUser extends Frame
{
	Button deleteUserButton;
	List userIDList;
	TextField useridText, nameText, dateofbirthText,
genderText,aadharnoText,voteridText,addressText;
	TextArea errorText;
	Connection connection;
	Statement statement;
	ResultSet rs;

	public DeleteUser()
	{
		try
		{
			Class.forName("oracle.jdbc.driver.OracleDriver");
		}
		catch (Exception e)
		{
			System.err.println("Unable to find and load driver");
			System.exit(1);
		}
		connectToDB();
	}

	public void connectToDB()
    {
		try
		{
		  connection =
DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521:xe","swetha","vasavi
");
		  statement = connection.createStatement();

		}
		catch (SQLException connectException)
		{
		  System.out.println(connectException.getMessage());
		  System.out.println(connectException.getSQLState());
		  System.out.println(connectException.getErrorCode());
		  System.exit(1);
		}
    }

	private void loadUsers()
	{
		try
		{
		  rs = statement.executeQuery("SELECT * FROM users");
		  while (rs.next())
		  {
		      userIDList.add(rs.getString("user_id"));
		  }
		}
		catch (SQLException e)
		{
		  displaySQLErrors(e);
		}
```

```
        }

        public void buildGUI()
        {
            userIDList = new List(10);
               loadUsers();
               add(userIDList);

               userIDList.addItemListener(new ItemListener()
               {
                      public void itemStateChanged(ItemEvent e)
                      {
                             try
                             {
                                    rs = statement.executeQuery("SELECT * FROM
users");
                                    while (rs.next())
                                    {
                                           if
(rs.getString("user_id").equals(userIDList.getSelectedItem()))
                                           break;
                                    }
                                    if (!rs.isAfterLast())
                                    {

        useridText.setText(rs.getString("user_id"));
                                           nameText.setText(rs.getString("name"));

        dateofbirthText.setText(rs.getString("dob"));

        genderText.setText(rs.getString("gender"));

        aadharnoText.setText(rs.getString("aadhar_no"));

        voteridText.setText(rs.getString("voter_id"));

        addressText.setText(rs.getString("Address"));
                                    }
                             }
                             catch (SQLException selectException)
                             {
                                    displaySQLErrors(selectException);
                             }
                      }
               });



               deleteUserButton = new Button("Delete User");
               deleteUserButton.addActionListener(new ActionListener()
               {
                      public void actionPerformed(ActionEvent e)
                      {
                             try
                             {
                                    Statement statement =
connection.createStatement();
                                    int i = statement.executeUpdate("DELETE FROM
users WHERE user_id = "
```

```
                                                + userIDList.getSelectedItem());
                                        errorText.append("\nDeleted " + i + " rows
successfully");
                                        useridText.setText(null);
                                        nameText.setText(null);
                                        dateofbirthText.setText(null);
                                        genderText.setText(null);
                                        aadharnoText.setText(null);
                                        voteridText.setText(null);
                                        addressText.setText(null);
                                        userIDList.removeAll();
                                        loadUsers();
                                }
                                catch (SQLException insertException)
                                {
                                        displaySQLErrors(insertException);
                                }
                        }
                });

                useridText = new TextField(20);
                nameText = new TextField(20);
                dateofbirthText = new TextField(20);
                genderText = new TextField(20);
                aadharnoText = new TextField(20);
                voteridText = new TextField(20);
                addressText = new TextField(20);
                errorText = new TextArea(10, 40);
                errorText.setEditable(false);

                Panel first = new Panel();
                first.setLayout(new GridLayout(4, 2));
                first.add(new Label("User ID:"));
                first.add(useridText);
                first.add(new Label("Name:"));
                first.add(nameText);
                first.add(new Label("Date of Birth:"));
                first.add(dateofbirthText);
                first.add(new Label("Gender:"));
                first.add(genderText);
                first.add(new Label("Aadhar No:"));
                first.add(aadharnoText);
                first.add(new Label("Voter Id:"));
                first.add(voteridText);
                first.add(new Label("Address:"));
                first.add(addressText);

                Panel second = new Panel(new GridLayout(4, 1));
                second.add(deleteUserButton);

                Panel third = new Panel();
                third.add(errorText);

                add(first);
                add(second);
                add(third);

                setTitle("Remove User");
                setSize(750, 800);
```

```
            setLayout(new FlowLayout());
            setVisible(true);

        }



        private void displaySQLErrors(SQLException e)
        {
            errorText.append("\nSQLException: " + e.getMessage() + "\n");
            errorText.append("SQLState:     " + e.getSQLState() + "\n");
            errorText.append("VendorError:  " + e.getErrorCode() + "\n");
        }



        public static void main(String[] args)
        {
            DeleteUser delu = new DeleteUser();

            delu.addWindowListener(new WindowAdapter(){
              public void windowClosing(WindowEvent e)
              {
                  System.exit(0);
              }
            });

            delu.buildGUI();
        }
}
```

MAIN FRAME GUI:

```
import java.awt.*;
import java.awt.event.*;

class EVoting extends Frame implements ActionListener
{
        String msg = "";
        Label ll;
        InsertUser inu;
        UpdateUser upu;
        DeleteUser delu;
        InsertVoter inv;
        UpdateVoter upv;
        DeleteVoter delv;
        InsertCandidate inc;
        UpdateCandidate upc;
        DeleteCandidate delc;


        EVoting()
        {
                ll = new Label();
                ll.setAlignment(Label.CENTER);
                ll.setBounds(90,250,250,100);
                ll.setText("Welcome to E-VOTING System");
                add(ll);
```

```
// create menu bar and add it to frame
MenuBar mbar = new MenuBar();
setMenuBar(mbar);

// create the menu items and add it to Menu
Menu user = new Menu("Users");
MenuItem item1, item2, item3;
user.add(item1 = new MenuItem("Insert User"));
user.add(item2 = new MenuItem("Update User"));
user.add(item3 = new MenuItem("Delete User"));
mbar.add(user);



Menu voter = new Menu("Voters");
MenuItem item4, item5, item6;
voter.add(item4 = new MenuItem("Insert Voter"));
voter.add(item5 = new MenuItem("Update Voter"));
voter.add(item6 = new MenuItem("Delete Voter"));
mbar.add(voter);

Menu candidate = new Menu("Candidates");
MenuItem item7, item8, item9;
candidate.add(item7 = new MenuItem("Insert Candidate"));
candidate.add(item8 = new MenuItem("Update Candidate"));
candidate.add(item9 = new MenuItem("Delete Candidate"));
mbar.add(candidate);
Menu login = new Menu("logins");
MenuItem item10;
login.add(item10 = new MenuItem("Register"));

mbar.add(login);



// register listeners
item1.addActionListener(this);
item2.addActionListener(this);
item3.addActionListener(this);
item4.addActionListener(this);
item5.addActionListener(this);
item6.addActionListener(this);
item7.addActionListener(this);
item8.addActionListener(this);
item9.addActionListener(this);
item10.addActionListener(this);



 // Anonymous inner class which extends WindowAdaptor to
handle the Window event: windowClosing
addWindowListener(new WindowAdapter(){
      public void windowClosing(WindowEvent we)
      {
            System.exit(0);
      }
});

//Frame properties
```

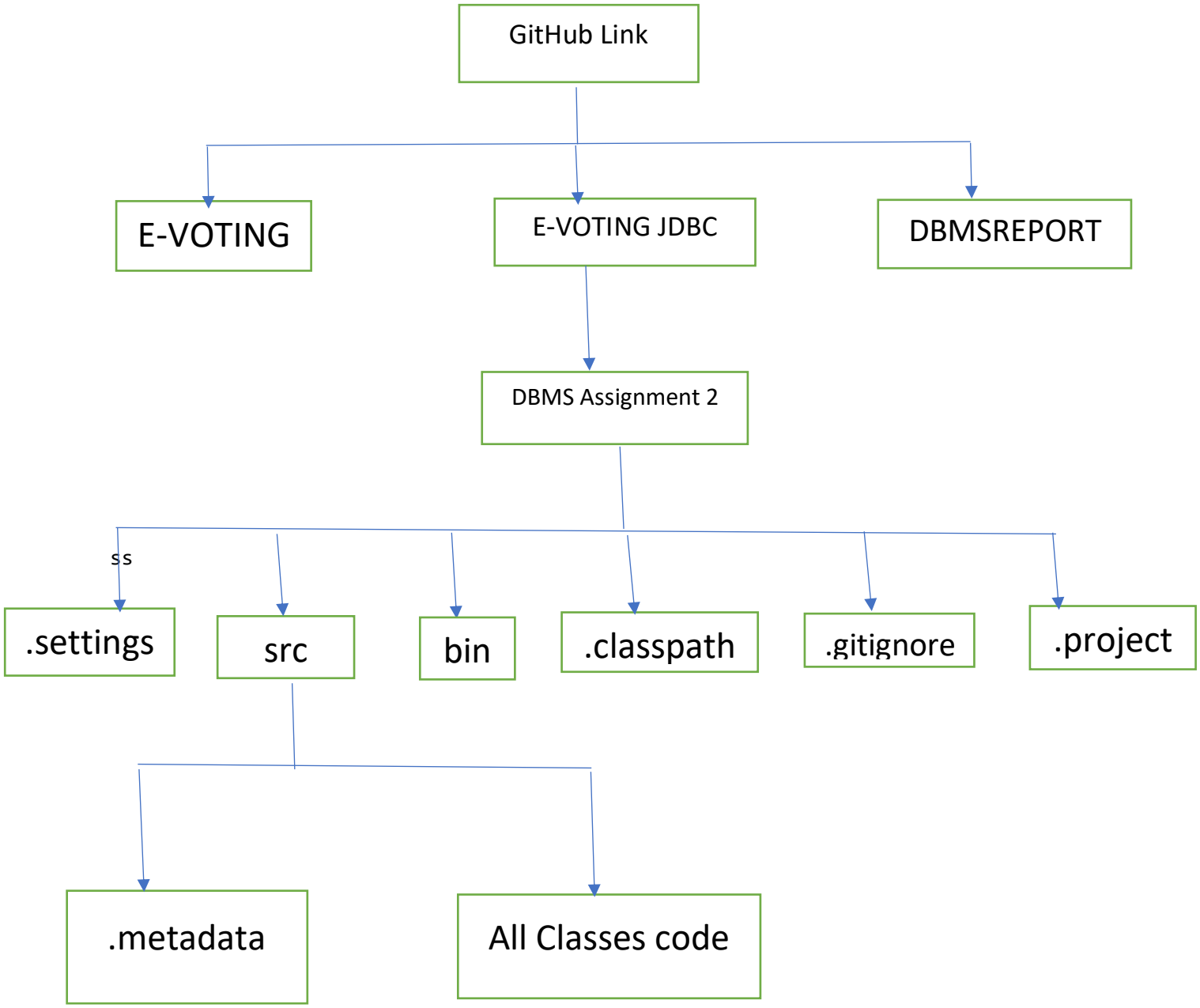
```
            setTitle("E-Voting System");
            setFont(new Font("White" ,Font.BOLD, 14));
            setLayout(null);
            setSize(500, 600);
            setVisible(true);

}

public void actionPerformed(ActionEvent ae)
{

       String arg = ae.getActionCommand();
       if(arg.equals("Insert User"))
       {
            inu = new InsertUser();

            inu.addWindowListener(new WindowAdapter(){
            public void windowClosing(WindowEvent e)
            {
                  inu.dispose();
            }
            });
            inu.buildGUI();
  }

      else if(arg.equals("Update Users"))
      {
            upu = new UpdateUser();
            upu.addWindowListener(new WindowAdapter(){
            public void windowClosing(WindowEvent e)
         {
                  upu.dispose();
            }
            });
            upu.buildGUI();
      }

      else if(arg.equals("Delete User"))
      {
            delu = new DeleteUser();

            delu.addWindowListener(new WindowAdapter(){
            public void windowClosing(WindowEvent e)
            {
                  delu.dispose();
            }
            });
            delu.buildGUI();
      }

      else if(arg.equals("Insert Voter"))
      {
            inv = new InsertVoter();
            inv.addWindowListener(new WindowAdapter(){
            public void windowClosing(WindowEvent e)
         {
                  inv.dispose();
            }
            });
```

```
        inv.buildGUI();
    }
    else if(arg.equals("Update Voter"))
    {
        upv = new UpdateVoter();
        setVisible(false);
        upv.addWindowListener(new WindowAdapter(){
        public void windowClosing(WindowEvent e)
        {
            upv.dispose();
            setVisible(true);
        }
        });
        upv.buildGUI();
    }
    else if(arg.equals("Delete Voter"))
    {
        delv = new DeleteVoter();
        setVisible(false);
        delv.addWindowListener(new WindowAdapter(){
        public void windowClosing(WindowEvent e)
        {
            delv.dispose();
            setVisible(true);
        }
        });
        delv.buildGUI();
    }
    else if(arg.equals("Insert Candidate"))
    {
        inc = new InsertCandidate();
        setVisible(false);
        inc.addWindowListener(new WindowAdapter(){
        public void windowClosing(WindowEvent e)
        {
            inc.dispose();
            setVisible(true);
        }
        });
        inc.buildGUI();
    }
    else if(arg.equals("Delete Candidate"))
    {
        delc = new DeleteCandidate();
        setVisible(false);
        delc.addWindowListener(new WindowAdapter(){
        public void windowClosing(WindowEvent e)
        {
            delc.dispose();
            setVisible(true);
        }
        });
        delc.buildGUI();
    }
    else if(arg.equals("Update Candidate"))
    {
        upc = new UpdateCandidate();
        setVisible(false);
        upc.addWindowListener(new WindowAdapter(){
```

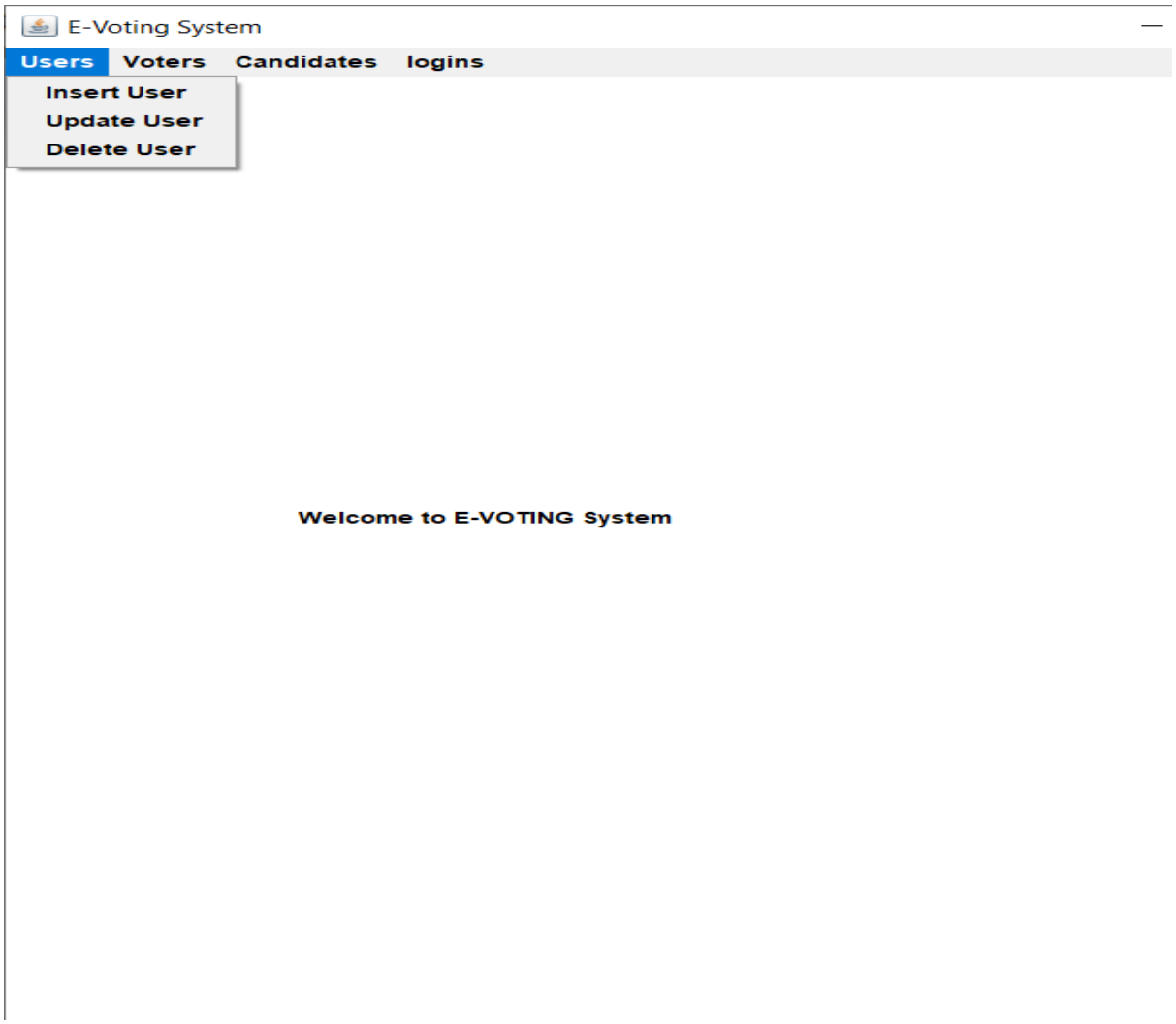
```
                    public void windowClosing(WindowEvent e)
                    {
                          upc.dispose();
                          setVisible(true);
                    }
                    });
                    upc.buildGUI();
              }
        }
        public static void main(String...args)
        {
                    new EVoting();
        }
}
```

2.GITHUB LINK AND FOLDER STRUCTURE:

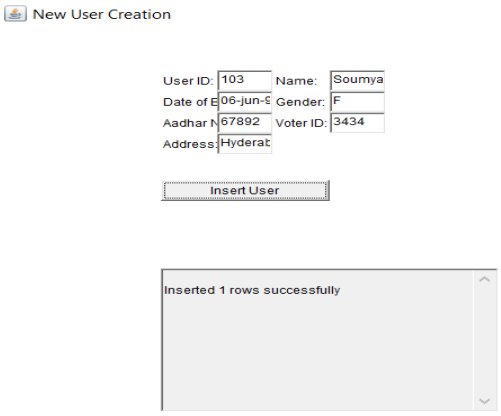
https://github.com/swethareddy0/DBMSPROJECT

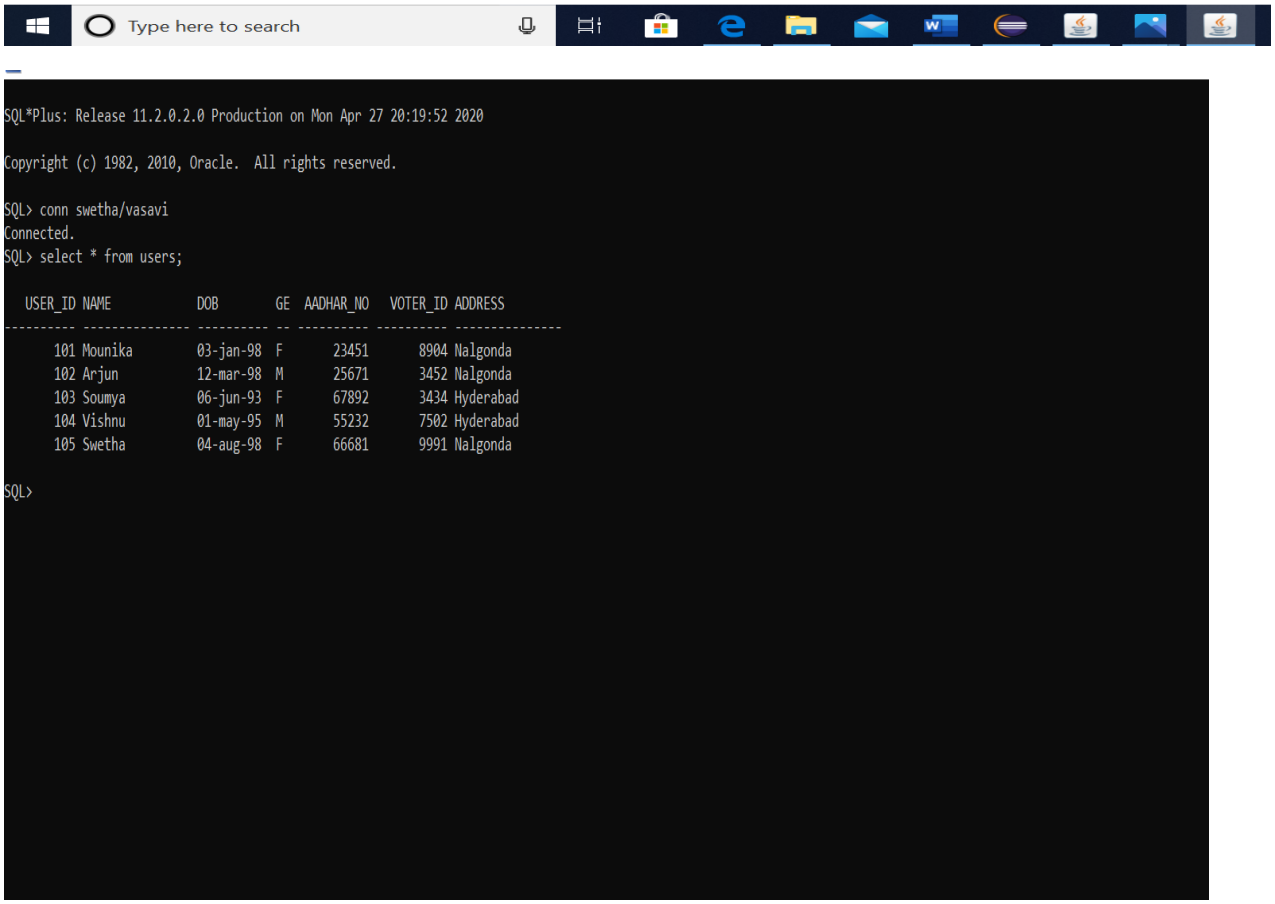


The main Frame that will be displayed when we execute the program:

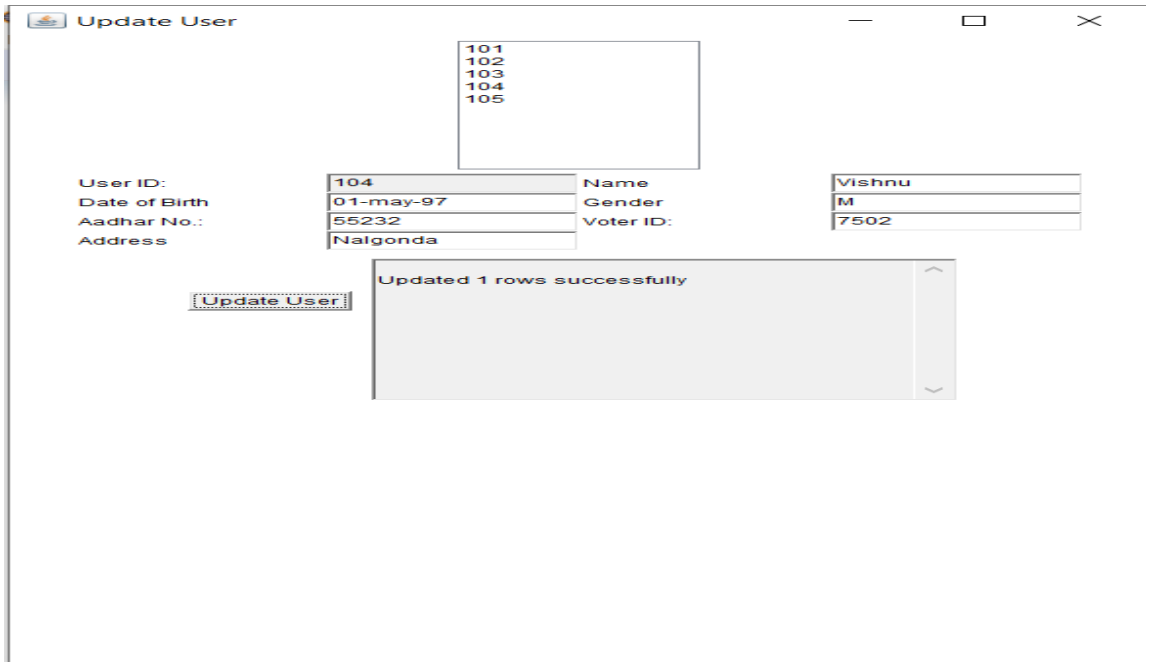

E-Voting System
Users
Voters
Candidates
logins
Insert User
Update User
Delete User
Welcome to E-VOTING System

SCREENSHOT OF INSERT USER:





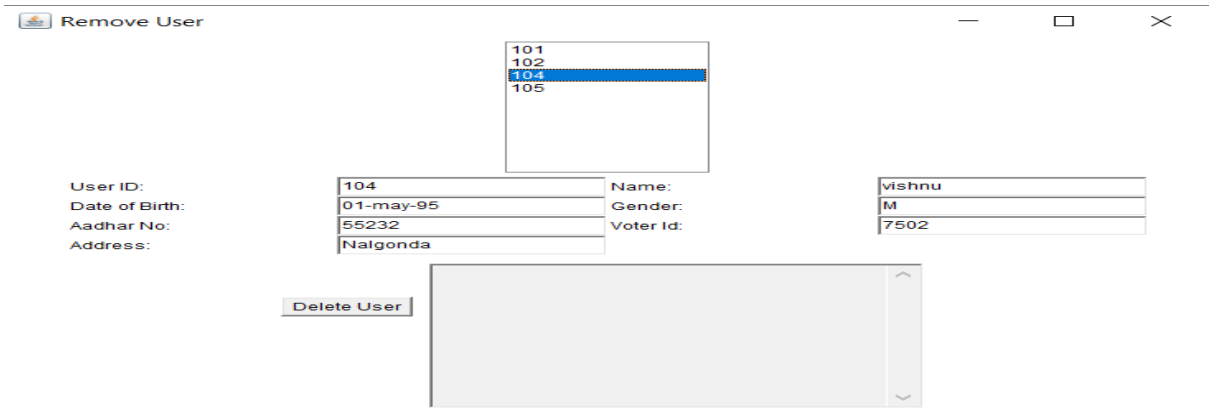
SCREENSHOT OF UPDATE USER:

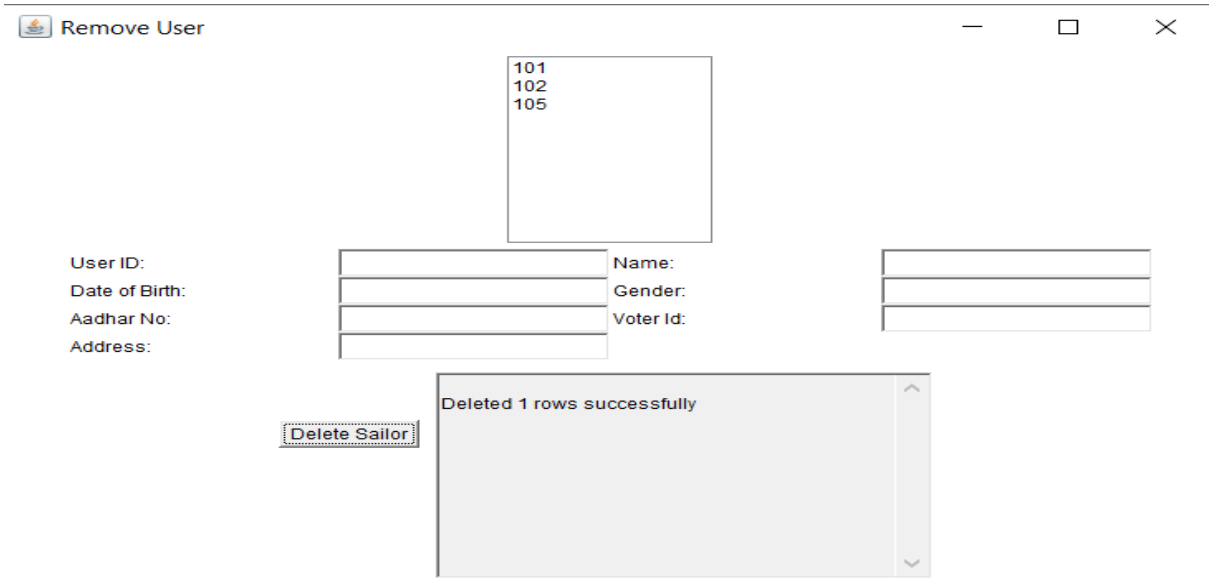


Run SQL Command Line

```
SQL*Plus: Release 11.2.0.2.0 Production on Mon Apr 27 20:19:52 2020

Copyright (c) 1982, 2010, Oracle.  All rights reserved.

SQL> conn swetha/vasavi
Connected.
SQL> select * from users;

   USER_ID NAME           DOB        GE  AADHAR_NO   VOTER_ID ADDRESS
---------- --------------- ---------- -- ---------- ---------- ---------------
       101 Mounika        03-jan-98  F       23451       8904 Nalgonda
       102 Arjun          12-mar-98  M       25671       3452 Nalgonda
       103 Soumya         06-jun-93  F       67892       3434 Hyderabad
       104 Vishnu         01-may-95  M       55232       7502 Hyderabad
       105 Swetha         04-aug-98  F       66681       9991 Nalgonda

SQL> select * from users;

   USER_ID NAME           DOB        GE  AADHAR_NO   VOTER_ID ADDRESS
---------- --------------- ---------- -- ---------- ---------- ---------------
       101 Mounika        03-jan-98  F       23451       8904 Nalgonda
       102 Arjun          12-mar-98  M       25671       3452 Nalgonda
       103 Soumya         06-jun-93  F       67892       3434 Hyderabad
       104 Vishnu         01-may-97  M       55232       7502 Nalgonda
       105 Swetha         04-aug-98  F       66681       9991 Nalgonda

SQL>
```

SCREENSHOT OF DELETE USER:

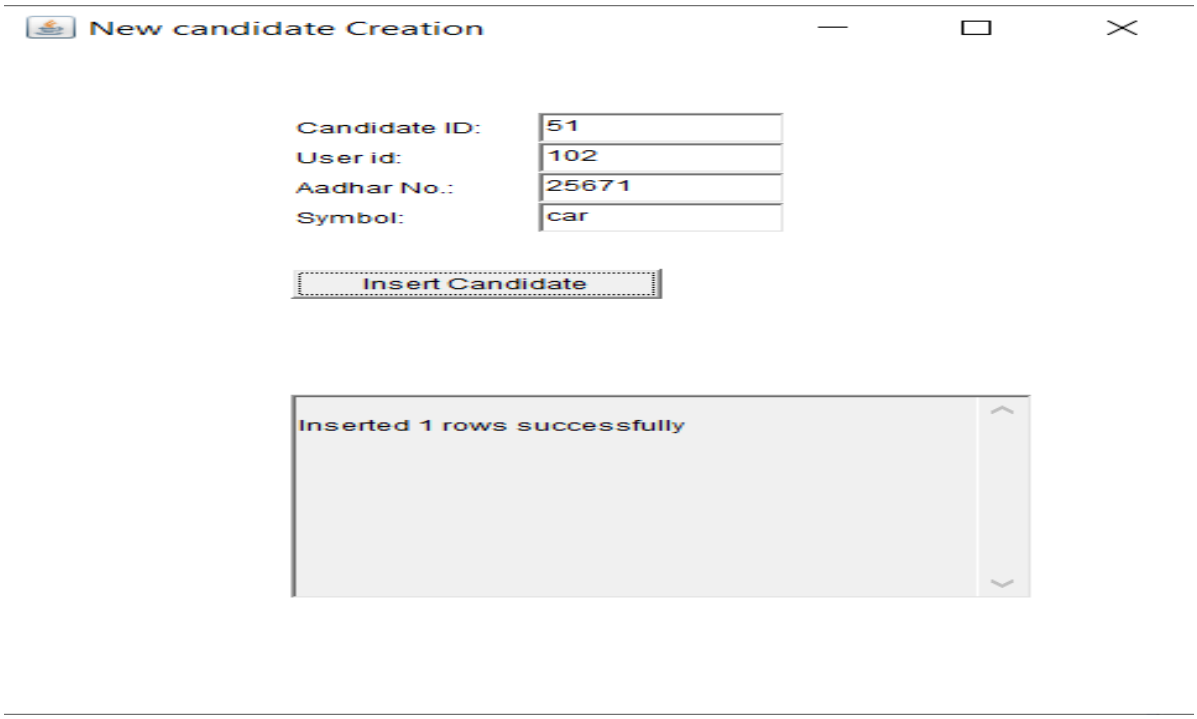




Run SQL Command Line

```
SQL*Plus: Release 11.2.0.2.0 Production on Mon Apr 27 20:19:52 2020

Copyright (c) 1982, 2010, Oracle.  All rights reserved.

SQL> conn swetha/vasavi
Connected.
SQL> select * from users;

   USER_ID NAME            DOB        GE  AADHAR_NO   VOTER_ID ADDRESS
---------- --------------- ---------- -- ---------- ---------- ---------------
       101 Mounika         03-jan-98  F       23451       8904 Nalgonda
       102 Arjun           12-mar-98  M       25671       3452 Nalgonda
       103 Soumya          06-jun-93  F       67892       3434 Hyderabad
       104 Vishnu          01-may-95  M       55232       7502 Hyderabad
       105 Swetha          04-aug-98  F       66681       9991 Nalgonda

SQL> select * from users;

   USER_ID NAME            DOB        GE  AADHAR_NO   VOTER_ID ADDRESS
---------- --------------- ---------- -- ---------- ---------- ---------------
       101 Mounika         03-jan-98  F       23451       8904 Nalgonda
       102 Arjun           12-mar-98  M       25671       3452 Nalgonda
       103 Soumya          06-jun-93  F       67892       3434 Hyderabad
       104 Vishnu          01-may-97  M       55232       7502 Nalgonda
       105 Swetha          04-aug-98  F       66681       9991 Nalgonda

SQL> select * from users;

   USER_ID NAME            DOB        GE  AADHAR_NO   VOTER_ID ADDRESS
---------- --------------- ---------- -- ---------- ---------- ---------------
       101 Mounika         03-jan-98  F       23451       8904 Nalgonda
       102 Arjun           12-mar-98  M       25671       3452 Nalgonda
       105 Swetha          04-aug-98  F       66681       9991 Nalgonda

SQL> _
```

SCREENSHOT OF INSERT CANDIDATE:

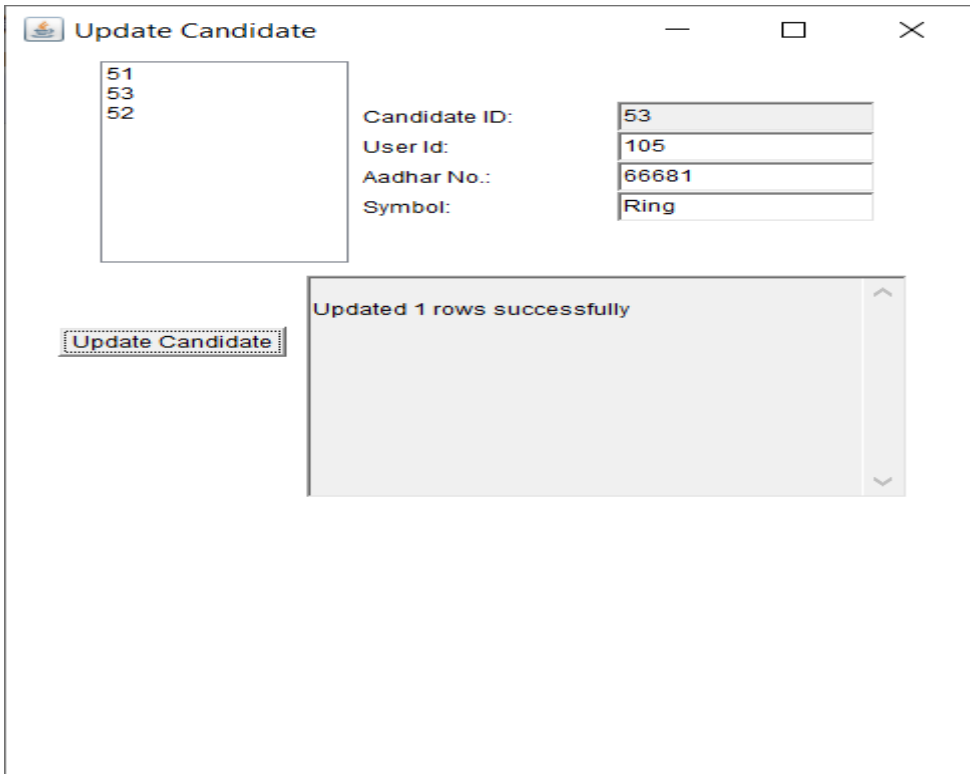


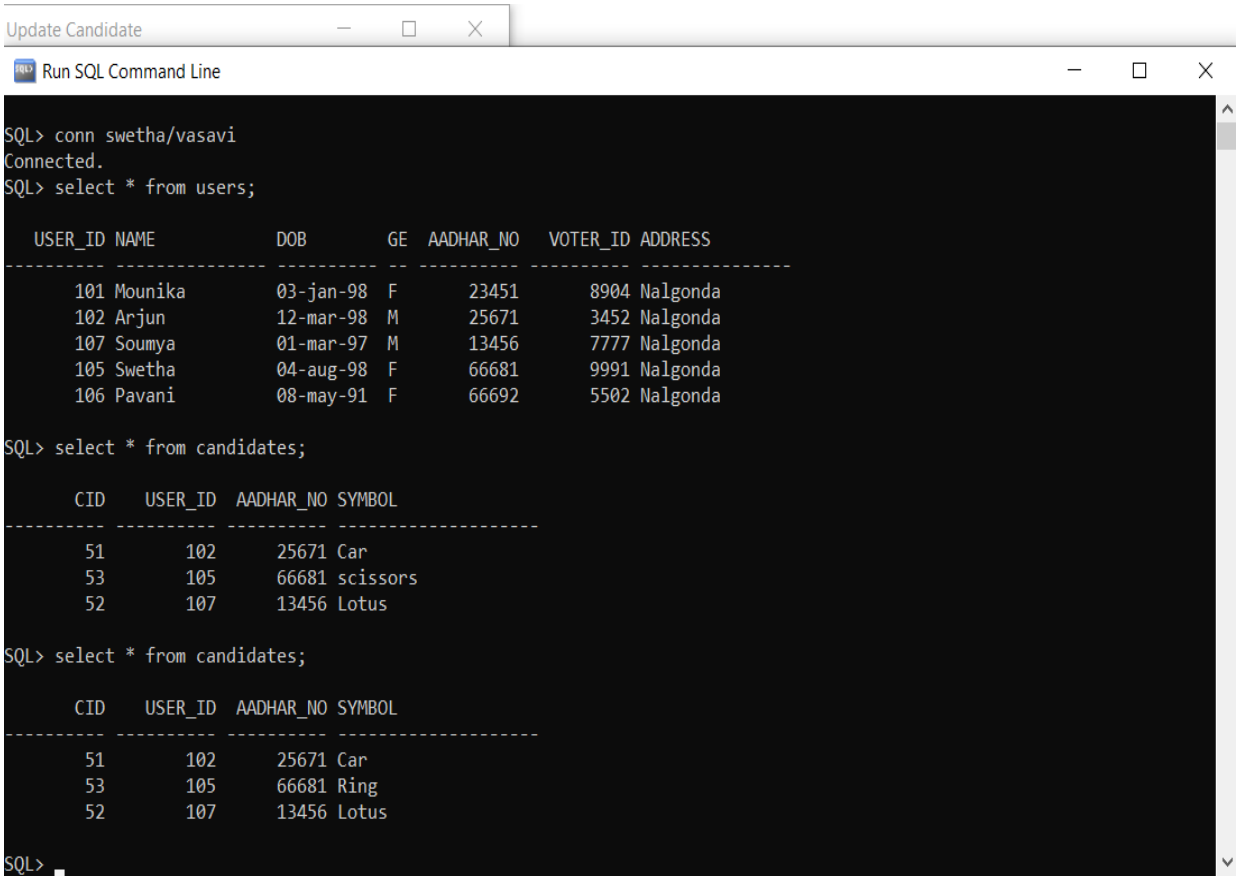
va - DBMS Assignment 2/src/InsertCandidate.java - Eclipse IDE

Run SQL Command Line

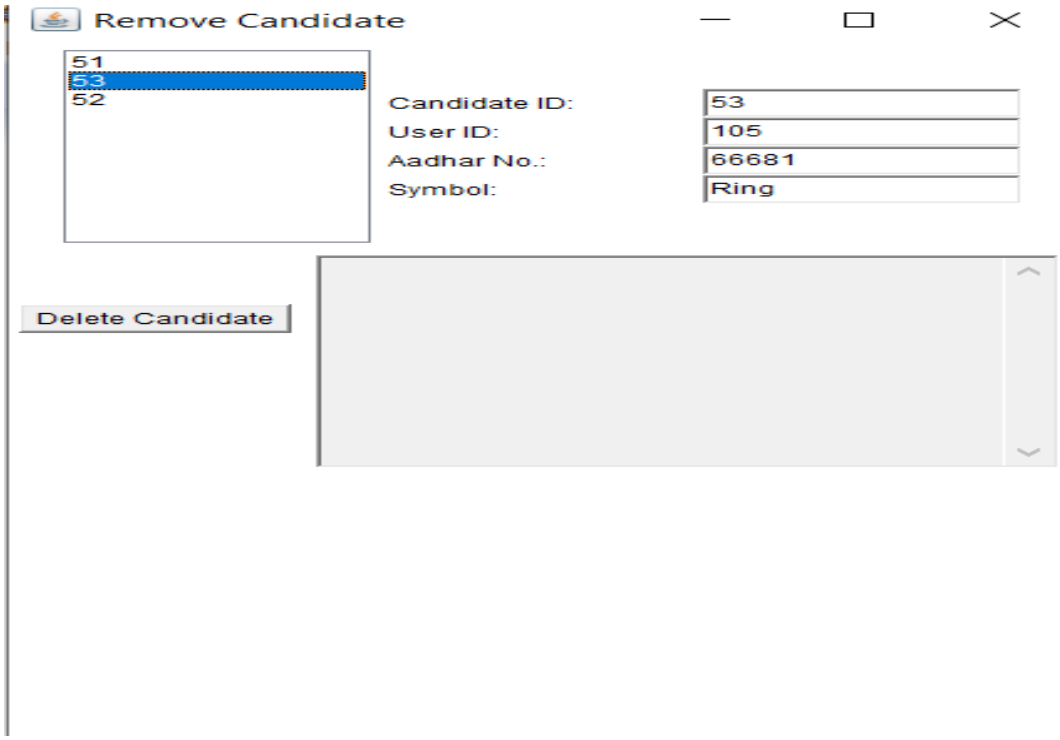
```
SQL*Plus: Release 11.2.0.2.0 Production on Tue Apr 28 08:23:00 2020

Copyright (c) 1982, 2010, Oracle.  All rights reserved.

SQL> conn swetha/vasavi
Connected.
SQL> select * from users;

   USER_ID NAME           DOB        GE  AADHAR_NO   VOTER_ID ADDRESS
---------- -------------- ---------- -- ---------- ---------- --------------
       101 Mounika        03-jan-98  F       23451       8904 Nalgonda
       102 Arjun          12-mar-98  M       25671       3452 Nalgonda
       107 Soumya         01-mar-97  M       13456       7777 Nalgonda
       105 Swetha         04-aug-98  F       66681       9991 Nalgonda
       106 Pavani         08-may-91  F       66692       5502 Nalgonda

SQL> select * from candidates;

       CID    USER_ID  AADHAR_NO SYMBOL
---------- ---------- ---------- --------------------
        51        102      25671 Car
        53        105      66681 scissors
        52        107      13456 Lotus

SQL>
```

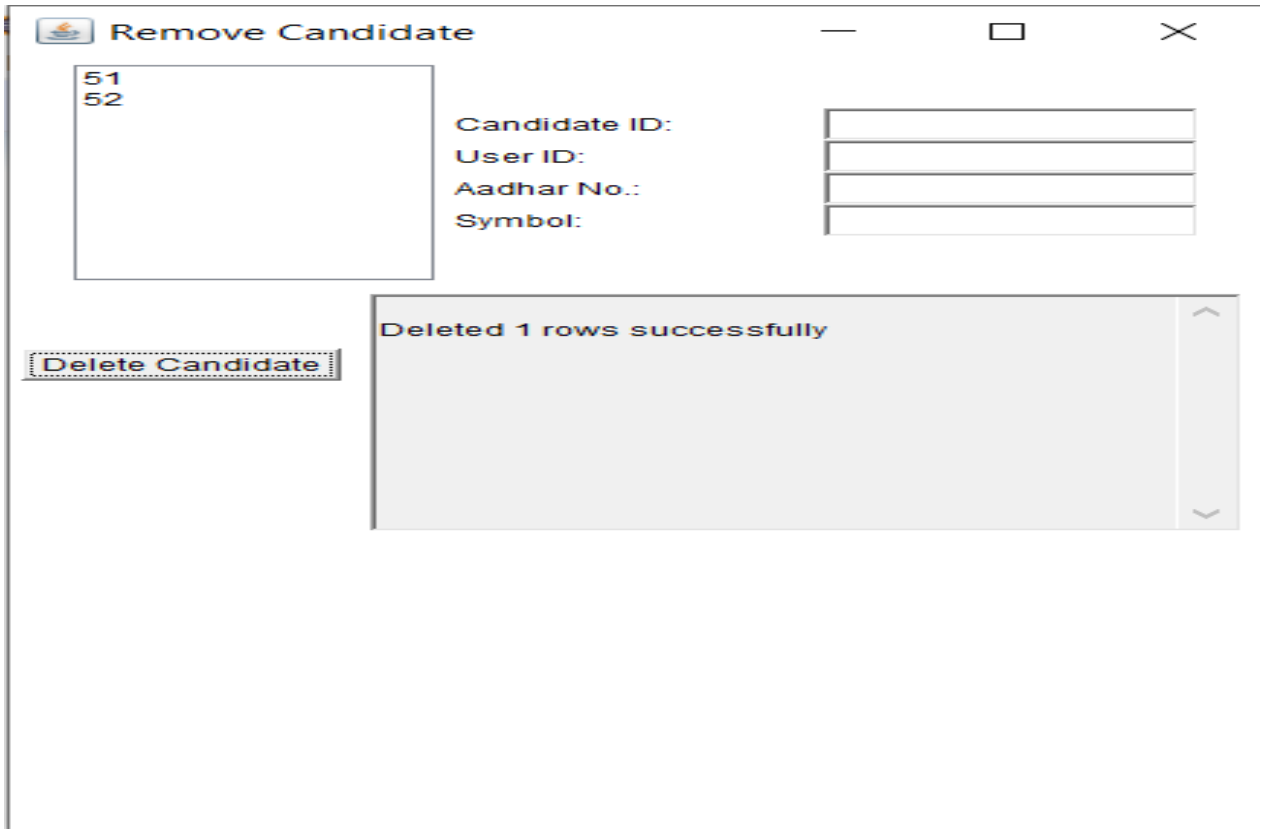
SCREENSHOT OF UPDATE CANDIDATE:





SCREENSHOT OF DELETE CANDIDATE:



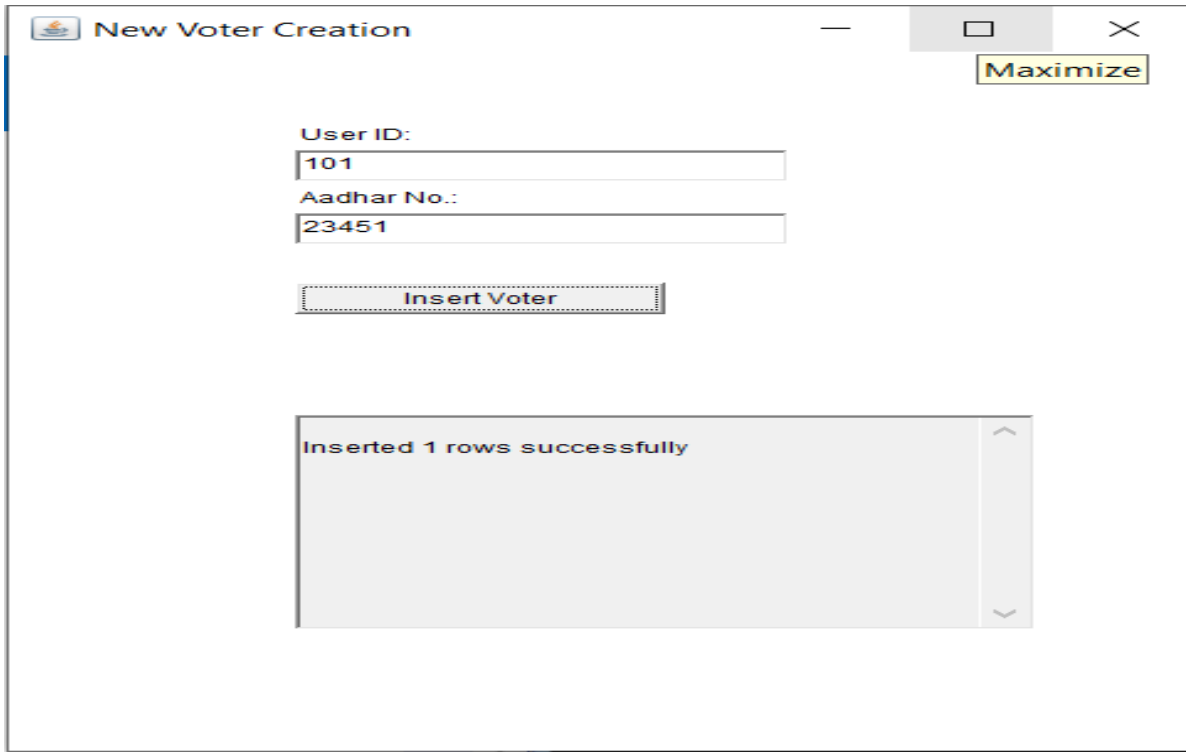


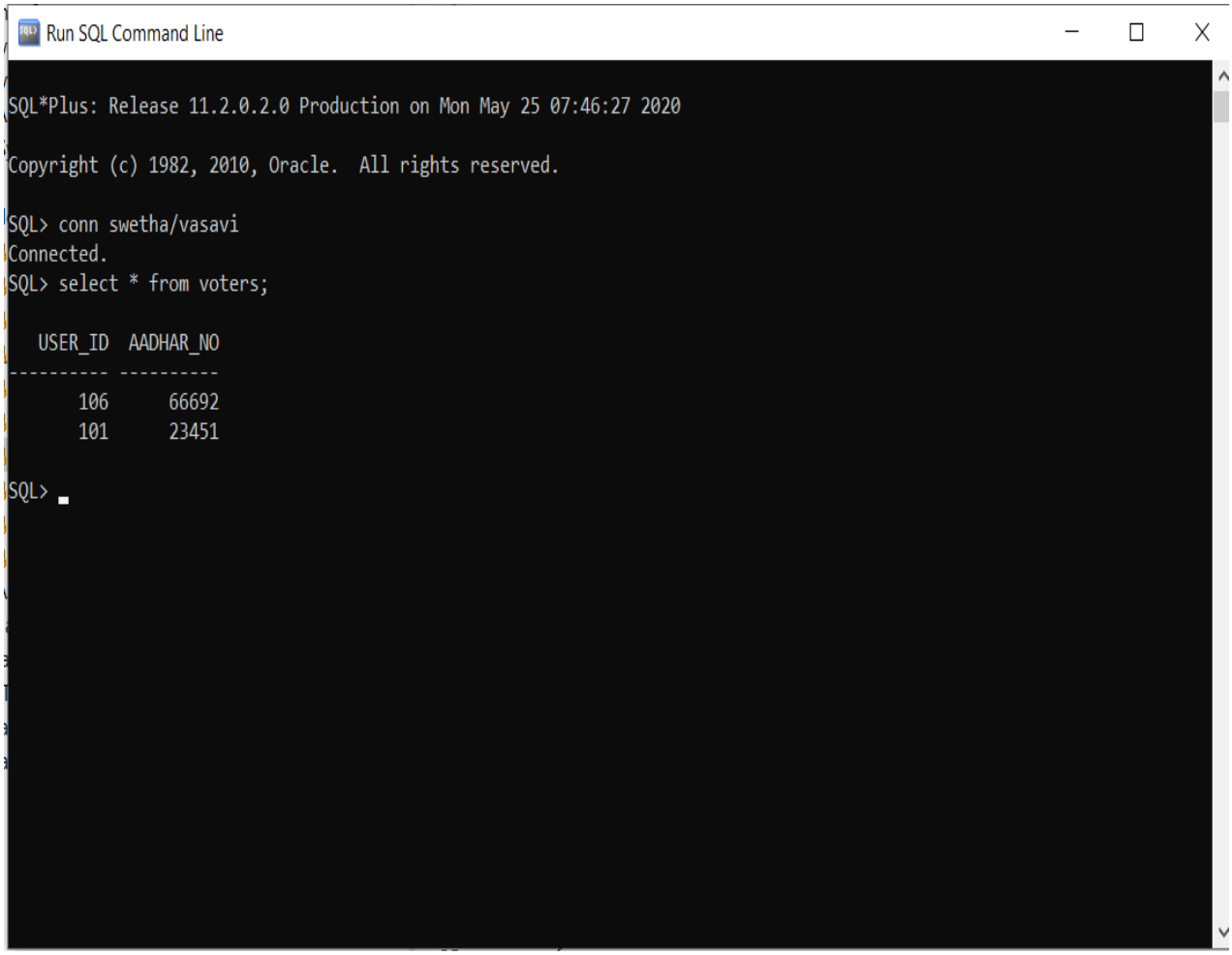
Remove Candidate

Run SQL Command Line

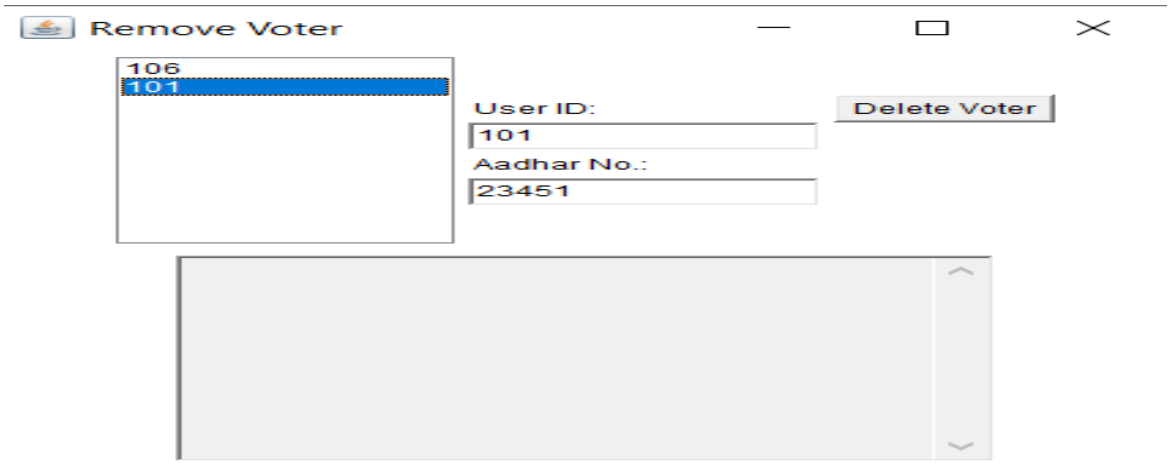
```
SQL> select * from candidates;

       CID    USER_ID  AADHAR_NO SYMBOL
---------- ---------- ---------- --------------------
        51        102      25671 Car
        53        105      66681 scissors
        52        107      13456 Lotus

SQL> select * from candidates;

       CID    USER_ID  AADHAR_NO SYMBOL
---------- ---------- ---------- --------------------
        51        102      25671 Car
        53        105      66681 Ring
        52        107      13456 Lotus

SQL> select * from candidates;

       CID    USER_ID  AADHAR_NO SYMBOL
---------- ---------- ---------- --------------------
        51        102      25671 Car
        52        107      13456 Lotus

SQL>
```

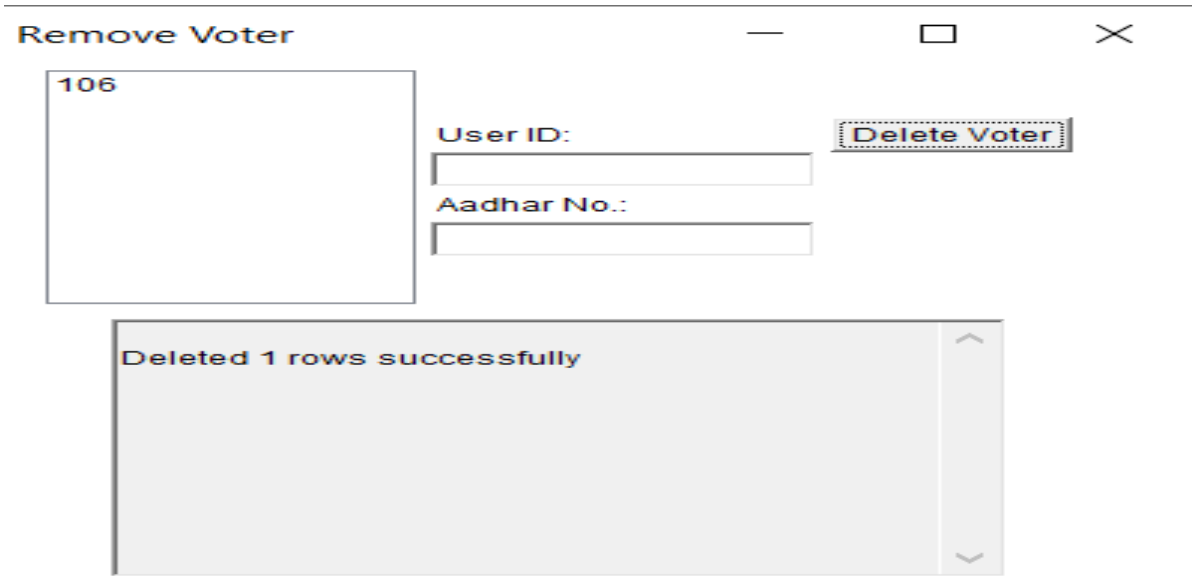
SCREENSHOT OF INSERT VOTER:





SCREENSHOT OF DELETE VOTER:





Run SQL Command Line

```
SQL*Plus: Release 11.2.0.2.0 Production on Mon May 25 07:46:27 2020

Copyright (c) 1982, 2010, Oracle.  All rights reserved.

SQL> conn swetha/vasavi
Connected.
SQL> select * from voters;

   USER_ID  AADHAR_NO
---------- ----------
       106      66692
       101      23451

SQL> select * from voters;

   USER_ID  AADHAR_NO
---------- ----------
       106      66692

SQL>
```

RESULT:

The process of entering information into the frame created by java code so that the data is reflected in the database using JDBC connectivity is done successfully.

DISCUSSION AND FUTURE WORK:

The application done upto now is a basic interface where the admin manages users by entering the data which were reflected in the data base through JDBC connectivity.In future the project will be edited in such a manner to add more secured information related to users so that their will be no issues.

REFERENCES:

https://docs.oracle.com/javase/8/docs/api/

https://www.geeksforgeeks.org/establishing-jdbc-connection-in-java/

https://www.javatpoint.com/java-awt