JAVA AWT BASED-
HOCKEY CLUB EVENTS ACTIVITY TRACKER
- SQL CONNECTIVITY USING JDBC

A Mini Project Report

Submitted in partial fulfilment of the

Requirements for the award of the Degree of

BACHELOR OF ENGINEERING

IN

INFORMATION TECHNOLOGY

By

TASNEEM BEGUM (1602-18-737-112)

Department of Information Technology

Vasavi College of Engineering (Autonomous)

(Affiliated to Osmania University)

Ibrahim Bagh, Hyderabad-31

2020

BONAFIDE CERTIFICATE

This is to Certify that the project report titled **"HOCKEY CLUB EVENTS ACTIVITY TRACKER"** project work of Miss. TASNEEM BEGUM bearing Roll.no:1602-18-737-112 who carried out this project under my supervision in the IV semester for the academic year 2019-2020.

Signature   Signature

External examine   Internal examine

ABSTRACT

A sports club will organize several events with different player's participation in the events, on different dates and at different locations. They need to maintain record of all this events and different players participated.

This database project helps to keep the record of hockey club events and participations of players in those events. A new user can easily track the store details of different events conducted at different locations and players participated it that events by entering his/her details into the database.

TASNEEM BEGUM
ROLL N0: 1602-18-737-112

a) Aim and Priority of the project:

To create a **Java GUI based "Hockey Club Event Activity Tracker"** which has the entities like: Admin, Events and Player whose values are taken from the user. These values are to be inserted, updated and deleted in the database using **JDBC connectivity.**

Introduction:

The purpose of this project is to provide an easy to use application for storing various activity of a club with consistence and later track them with ease. For an admin using this application has to enter his/her admin_id and directly can insert, update or delete any record without any ambiguity. Later, user can track events effectively as the application works efficiently.

b) Requirements:

Tables required-5

TABLE NAME	ATTRIBUTES	DOMAIN
Admin	i)u_id ii)fname iii)lname	number(5) varchar2(20) varchar2(20)
Events	i)e_id ii)location iii)e_date	number(5) varchar2(20) DATE
Tracks	i)u_id ii)e_id iii)time	number(5) number (5) varchar2(20)
Player	i)p_id ii)fname iii)lname iv)position v)rank	number (5) varchar2(20) varchar2(20) varchar2(20) number (5)
Participate	i)e_id ii)p_id	number (5) number (5)

TASNEEM BEGUM
ROLL N0: 1602-18-737-112

c) Architecture and Technology:

Software used :

i.   Java Eclipse

ii.   Oracle 11g Database Enterprise Edition Release 11.2.0.1.0-64 bit
          SQL*Plus Release 9.0.1.3.0.

Java AWT:

Java AWT (Abstract Window Toolkit) 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 heavyweight i.e. its components are using the resources of OS. The java.awt package provides classes such as TextField, Label, TextArea, Button, Choice, List ,etc.

SQL:

Structure Query Language(SQL) is a database query language used for storing and managing data in Relational DBMS. SQL was the first commercial language introduced for E.F Codd's Relational model of database. Today almost all RDBMS (MySql, Oracle, Infomix, Sybase, MS Access) use SQL as the standard database query language. SQL is used to perform all types of data operations in RDBMS.

d) Design:

i) Entity Relationship Model:
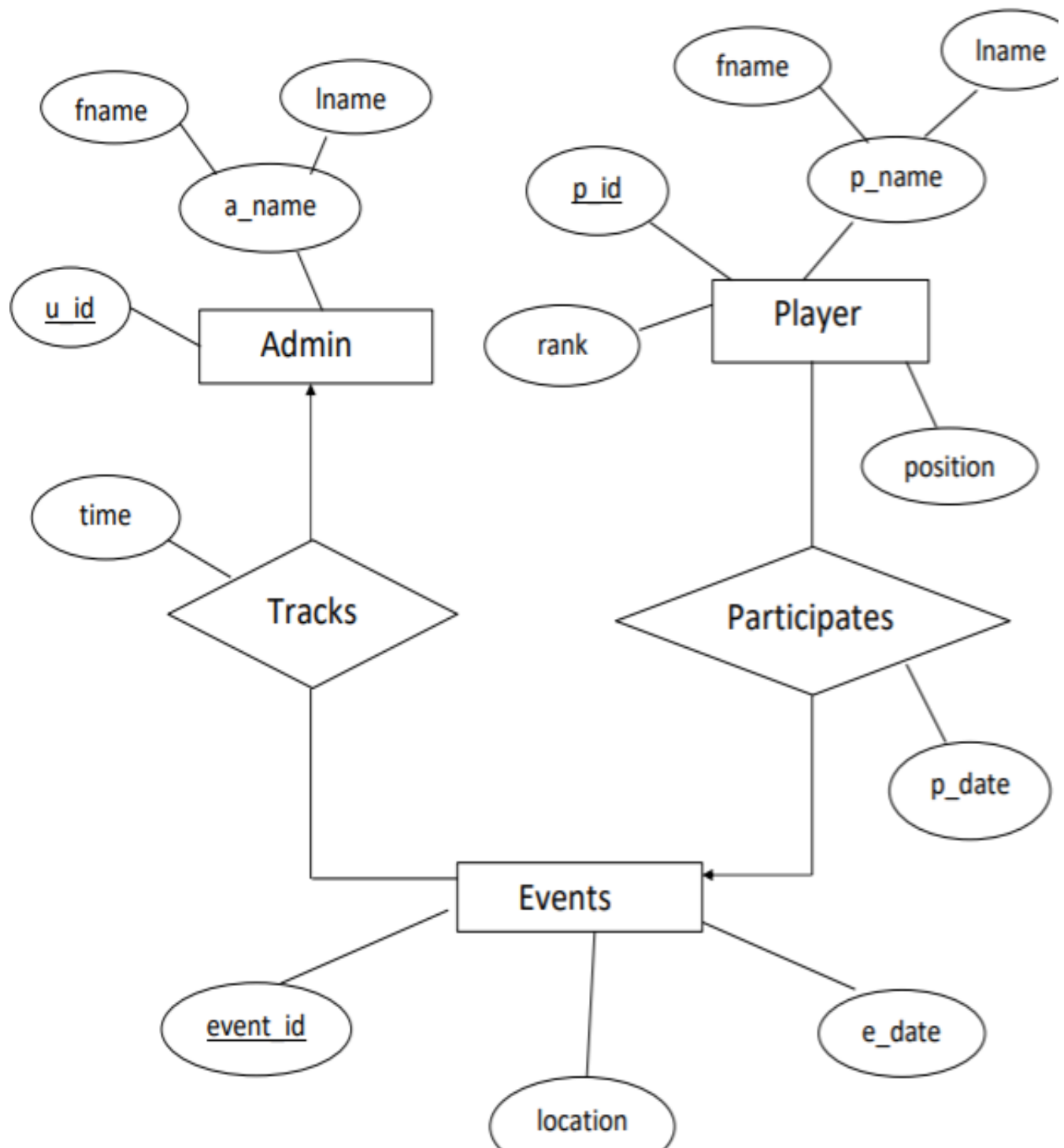
ii)Database Design:

Creation of tables using DDL commands as follows:

1. Admin Table:

```
SQL> create table admin(
  2   u_id number(5) primary key,
  3   fname varchar2(20),
  4   lname varchar2(20));

Table created.

SQL> desc admin;
 Name                                      Null?    Type
 ----------------------------------------- -------- ----------------------------

 U_ID                                      NOT NULL NUMBER(5)
 FNAME                                              VARCHAR2(20)
 LNAME                                              VARCHAR2(20)

SQL>
```

2.Event Table:

```
SQL> create table events(
  2   e_id number(5) primary key,
  3   location varchar2(20),
  4   e_date DATE);

Table created.

SQL> desc events;
 Name                                      Null?    Type
 ----------------------------------------- -------- ----------------------------

 E_ID                                      NOT NULL NUMBER(5)
 LOCATION                                           VARCHAR2(20)
 E_DATE                                             DATE

SQL>
```

3.Tracks Relationship Table:

```
SQL> create table tracks(
  2   u_id number(5),
  3   e_id number(5),
  4   time varchar2(20));

Table created.

SQL> alter table tracks add foreign key(u_id) references admin;

Table altered.

SQL> alter table tracks add foreign key(e_id) references events;

Table altered.

SQL> alter table tracks add primary key(u_id,e_id);

Table altered.

SQL> desc tracks;
 Name                                      Null?    Type
 ----------------------------------------- -------- ----------------------------

 U_ID                                      NOT NULL NUMBER(5)
 E_ID                                      NOT NULL NUMBER(5)
 TIME                                               VARCHAR2(20)
```

4. Player Table:

```
SQL> create table player(
  2  p_id number(5) primary key,
  3  pfname varchar2(20),
  4  plname varchar2(20),
  5  position varchar2(20),
  6  rank number(5));

Table created.

SQL> desc player;
 Name                                      Null?    Type
 ---------------------------------------   -------- ------------------

 P_ID                                      NOT NULL NUMBER(5)
 PFNAME                                             VARCHAR2(20)
 PLNAME                                             VARCHAR2(20)
 POSITION                                           VARCHAR2(20)
 RANK                                               NUMBER(5)

SQL>
```

5. Participation Relationship Table:

```
SQL> create table participate(
  2  e_id number(5),
  3  p_id number(5),
  4  date DATE);
date DATE)
```

```
SQL> alter table participate add foreign key(e_id) references events;

Table altered.

SQL> alter table participate add foreign key(p_id) references player;

Table altered.

SQL> alter table participate add primary key(e_id,p_id);

Table altered.
```

```
SQL> desc participate;
 Name                                      Null?    Type
 ---------------------------------------   -------- ------------------

 E_ID                                      NOT NULL NUMBER(5)
 P_ID                                      NOT NULL NUMBER(5)
 P_DATE                                             DATE

SQL>
```

Inserting records using DML operation :

1.Admin Table:

```
SQL> insert into admin values(101,'Bihar','11-FEB-2020');

1 row created.
```

```
SQL> select * from admin;

     U_ID FNAME                 LNAME
---------- -------------------- --------------------
        1 Varsha                Kumari
        2 sri                   raj
        3 sana                  fatima
        4 abdul                 wahed
        5 abdul                 majed

SQL>
```

2.Events Table:

```
SQL> select * from events;

     E_ID LOCATION              E_DATE
---------- -------------------- ---------
      101 Bihar                 11-FEB-20
      102 lucknow               20-FEB-20
      103 Delhi                 24-MAR-20
      104 Hyderabad             19-AUG-20
      105 Mumbai                13-MAY-20

SQL>
```

3. Tracks Relationship Table:

```
SQL> select * from tracks;

     U_ID        E_ID TIME
---------- ---------- --------------------
         1        101 2:00pm
         2        102 10:00am
         3        103 8:30pm
         4        104 5:34pm
         5        105 9:09am
```

4. Player Table:

```
SQL> select * from player;
        P_ID PFNAME              PLNAME              POSITION
        RANK
          17 Dhyan               Chand               forwards
           1

          28 Dhanraj             Pillay              midfields
           7

          36 Udham               Singh               goalie
          15

        P_ID PFNAME              PLNAME              POSITION
        RANK
          50 Luslie              Claudis             fullbacks
           5

          73 Mohammmed           Shahid              fullbacks
           2

SQL>
```

5. Participation Relationship Table:

```
SQL> select * from participate;

     E_ID     P_ID P_DATE

      101       17 09-FEB-20
      102       28 16-FEB-20
      103       36 21-MAR-20
      104       50 18-AUG-20
      105       73 10-MAY-20
```

e) Implementation

i) Front end programs and connectivity

//CONNECTIVITY PROGRAM:

```java
import java.sql.*;

public class OracleConnection
{
    public static void main(String args[])
    {
        try
        {
                //step1 load the driver class
                Class.forName("oracle.jdbc.driver.OracleDriver");   // or Class.forName("oracle.jdbc.OracleDriver");

                //step2 create  the connection object
                Connection con=DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521:tasneem","tasneem","tasneem");

                //step3 create the statement object
                Statement stmt=con.createStatement();

                //step4 close the connection object
                con.close();

        }catch(Exception e){ System.out.println(e);}

    }
}
```

Thus, the connection from Java to Oracle database is performed and therefore, can be used for inserting, updating and deleting tables in the database directly.

Programs:

1.Inserting in Admin Table:

```java
import java.awt.*;
import java.awt.event.*;
import java.sql.*;
import javax.swing.JOptionPane;
public class InsertAdmin extends Frame
{
        Button insertAdminButton;
        TextField u_idText, fnameText, lnameText;
        TextArea errorText;
        Connection connection;
        Statement statement;
        public InsertAdmin()
        {
                try
                {
                        Class.forName("oracle.jdbc.driver.OracleDriver");
                }
```

```java
            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:tasneem","tasneem","tasneem")
;

              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()
    {
            insertAdminButton = new Button("Insert Admin");
            insertAdminButton.addActionListener(new ActionListener()
            {
                    public void actionPerformed(ActionEvent e)
                    {
                            try
                            {
                              String query= "INSERT INTO admin VALUES(" +
u_idText.getText() + ", " + "'" + fnameText.getText() + "'" + ","+"'"+lnameText.getText()
+"'"+ ")";

                              int i = statement.executeUpdate(query);
                              errorText.append("\nInserted " + i + " rows successfully");
                            }
                            catch (SQLException insertException)
                            {
                              displaySQLErrors(insertException);
                              JOptionPane.showMessageDialog(null,"Input is in wrong
format.", "Error Message",JOptionPane.ERROR_MESSAGE);
                            }
                    }
            });


            u_idText = new TextField(15);
            fnameText = new TextField(15);
            lnameText = 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("Admin/User ID:"));
            first.add(u_idText);
            first.add(new Label("First Name:"));
            first.add(fnameText);
```

```java
                first.add(new Label("Last Name:"));
                first.add(lnameText);
                first.setBounds(125,90,200,100);

                Panel second = new Panel(new GridLayout(4, 1));
                second.add(insertAdminButton);
          second.setBounds(125,220,150,100);

                Panel third = new Panel();
                third.add(errorText);
                third.setBounds(125,320,300,200);

                setLayout(null);

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

                setTitle("New Admin Creation");
                setSize(500, 600);
                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)
        {
                InsertAdmin sail = new InsertAdmin();

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

                sail.buildGUI();
        }
}
```

2. Updating Admin Table:

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

import javax.swing.JOptionPane;
public class UpdateAdmin extends Frame
{
        Button updateAdminButton;
        List adminIDList;
        TextField u_idText, fnameText, lnameText;
        TextArea errorText;
        Connection connection;
        Statement statement;
        ResultSet rs;
```

TASNEEM BEGUM

ROLL N0: 1602-18-737-112

```java
        public UpdateAdmin()
        {
                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:tasneem","tasneem","tasneem")
;
                        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 loadAdmin()
        {
                try
                {
                    rs = statement.executeQuery("SELECT u_id FROM admin");
                    while (rs.next())
                    {
                            adminIDList.add(rs.getString("u_id"));
                    }
                }
                catch (SQLException e)
                {
                    displaySQLErrors(e);
                }
        }

        public void buildGUI()
        {
            adminIDList = new List(10);
                loadAdmin();
                add(adminIDList);

                adminIDList.addItemListener(new ItemListener()
                {
                        public void itemStateChanged(ItemEvent e)
                        {
                                try
                                {
                                        rs = statement.executeQuery("SELECT * FROM admin where
u_id ="+adminIDList.getSelectedItem());
                                        rs.next();
```

TASNEEM BEGUM
ROLL N0: 1602-18-737-112

```java
                                u_idText.setText(rs.getString("u_id"));
                                fnameText.setText(rs.getString("fname"));
                                lnameText.setText(rs.getString("lname"));

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

        updateAdminButton = new Button("Update admin");
        updateAdminButton.addActionListener(new ActionListener()
        {
                public void actionPerformed(ActionEvent e)
                {
                        try
                        {
                                Statement statement = connection.createStatement();
                                int i = statement.executeUpdate("UPDATE admin "
                                + "SET fname='" + fnameText.getText() + "', "
                                + "lname='" + lnameText.getText() + "'"
                                +  " WHERE u_id = "
                                + adminIDList.getSelectedItem());
                                errorText.append("\nUpdated " + i + " rows
successfully");

                                adminIDList.removeAll();
                                loadAdmin();
                        }
                        catch (SQLException insertException)
                        {
                                displaySQLErrors(insertException);
                                JOptionPane.showMessageDialog(null,"Input is in
wrong format.", "Error Message",JOptionPane.ERROR_MESSAGE);
                        }
                }
        });
        u_idText = new TextField(15);
        fnameText = new TextField(15);
        lnameText = 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("Admin/User ID:"));
        first.add(u_idText);
        first.add(new Label("First Name:"));
        first.add(fnameText);
        first.add(new Label("Last Name:"));
        first.add(lnameText);

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

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

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

        setTitle("Update Admin");
```

TASNEEM BEGUM
ROLL N0: 1602-18-737-112

```java
                setSize(500, 600);
                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)
        {
                UpdateAdmin ups = new UpdateAdmin();

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

                ups.buildGUI();
        }
}
```

3. Deleting Admin Table:

```java
import java.awt.*;
import java.awt.event.*;
import java.sql.*;
public class DeleteAdmin extends Frame
{
        Button deleteAdminButton;
        List adminIDList;
        TextField u_idText, fnameText, lnameText;
        TextArea errorText;
        Connection connection;
        Statement statement;
        ResultSet rs;

        public DeleteAdmin()
        {
                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:tasneem","tasneem","tasneem")
;
```

TASNEEM BEGUM

ROLL N0: 1602-18-737-112

```java
                    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 loadAdmin()
    {
            try
            {
              rs = statement.executeQuery("SELECT * FROM admin");
              while (rs.next())
              {
                    adminIDList.add(rs.getString("u_id"));
              }
            }
            catch (SQLException e)
            {
              displaySQLErrors(e);
            }
    }

    public void buildGUI()
    {
            adminIDList = new List(10);
            loadAdmin();
            add(adminIDList);

            adminIDList.addItemListener(new ItemListener()
            {
                    public void itemStateChanged(ItemEvent e)
                    {
                            try
                            {
                                    rs = statement.executeQuery("SELECT * FROM admin");
                                    while (rs.next())
                                    {
                                            if
(rs.getString("u_id").equals(adminIDList.getSelectedItem()))
                                                    break;
                                    }
                                    if (!rs.isAfterLast())
                                    {
                                            u_idText.setText(rs.getString("u_id"));
                                            fnameText.setText(rs.getString("fname"));
                                            lnameText.setText(rs.getString("lname"));

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

            deleteAdminButton = new Button("Delete Admin");
            deleteAdminButton.addActionListener(new ActionListener()
            {
```

TASNEEM BEGUM
ROLL N0: 1602-18-737-112

```java
                    public void actionPerformed(ActionEvent e)
                    {
                            try
                            {
                                    Statement statement = connection.createStatement();
                                    int i = statement.executeUpdate("DELETE FROM admin
WHERE u_id = "
                                                    + adminIDList.getSelectedItem());
                                    errorText.append("\nDeleted " + i + " rows
successfully");

                                    u_idText.setText(null);
                                    fnameText.setText(null);
                                    lnameText.setText(null);
                                    adminIDList.removeAll();
                                    loadAdmin();
                            }
                            catch (SQLException insertException)
                            {
                                    displaySQLErrors(insertException);
                            }
                    }
            });

            u_idText = new TextField(15);
            fnameText = new TextField(15);
            lnameText = 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("Admin/User ID:"));
            first.add(u_idText);
            first.add(new Label("First Name:"));
            first.add(fnameText);
            first.add(new Label("Last Name:"));
            first.add(lnameText);

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

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

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

            setTitle("Remove Admin");
            setSize(450, 600);
            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");
    }
```

TASNEEM BEGUM

ROLL N0: 1602-18-737-112

```java
        public static void main(String[] args)
        {
                DeleteAdmin dels = new DeleteAdmin();

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

                dels.buildGUI();
        }
}
```

Main Program:

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

class HockeyClubEventTracker extends Frame implements ActionListener
{
        String msg = "";
        Label l1,l2;
        Frame f;
        InsertAdmin iadmin;
        UpdateAdmin uadmin;
        DeleteAdmin dadmin;
        InsertEvents ievents;
        DeleteEvents devents;
        UpdateEvents uevents;
        InsertPlayer iplayer;
        DeletePlayer dplayer;
        UpdatePlayer uplayer;
        InsertTracks itracks;
        DeleteTracks dtracks;
        UpdateTracks utracks;
        InsertParticipate iparticipate;
        DeleteParticipate dparticipate;
        UpdateParticipate uparticipate;

        HockeyClubEventTracker()
        {
                l1 = new Label("Welcome to");
                l2=new Label("Hockey Club Event Activity Tracker");
                l1.setAlignment(Label.CENTER);
                l2.setAlignment(Label.CENTER);
                l1.setFont(new Font("SansSerif", Font.BOLD, 40));
                l2.setFont(new Font("SansSerif", Font.BOLD, 50));
                setLayout(new BorderLayout());
                add(l1,BorderLayout.NORTH);
                add(l2,BorderLayout.CENTER);

                MenuBar mbar = new MenuBar();
                setMenuBar(mbar);

                Menu admin = new Menu("Admin");
                MenuItem item1, item2, item3;
                admin.add(item1 = new MenuItem("Insert Admin"));
                admin.add(item2 = new MenuItem("Update Admin"));
                admin.add(item3 = new MenuItem("Delete Admin"));
                mbar.add(admin);
```

TASNEEM BEGUM

ROLL N0: 1602-18-737-112

```java
Menu events = new Menu("Events");
MenuItem item4, item5, item6;
events.add(item4 = new MenuItem("Insert Events"));
events.add(item5 = new MenuItem("Update Events"));
events.add(item6 = new MenuItem("Delete Events"));
mbar.add(events);

Menu player = new Menu("Player");
MenuItem item7, item8, item9;
player.add(item7 = new MenuItem("Insert Player"));
player.add(item8 = new MenuItem("Update Player"));
player.add(item9 = new MenuItem("Delete Player"));
mbar.add(player);

Menu tracks= new Menu("Tracks");
MenuItem item10,item11,item12;
tracks.add(item10=new MenuItem("Insert Tracks"));
tracks.add(item11=new MenuItem("Update Tracks"));
tracks.add(item12=new MenuItem("Delete Tracks"));
mbar.add(tracks);

Menu participate=new Menu("Participate");
MenuItem item13,item14,item15;
participate.add(item13=new MenuItem("Insert Participate"));
participate.add(item14=new MenuItem("Update Participate"));
participate.add(item15=new MenuItem("Delete Participate"));
mbar.add(participate);

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);
item11.addActionListener(this);
item12.addActionListener(this);
item13.addActionListener(this);
item14.addActionListener(this);
item15.addActionListener(this);

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

setTitle("Hockey Club Event Activity Tracker ");
Color clr = new Color(150, 150, 150);
setBackground(clr);
setFont(new Font("SansSerif", Font.BOLD, 14));
setSize(600, 600);
setVisible(true);

}

public void actionPerformed(ActionEvent ae)
{

        String arg = ae.getActionCommand();
```

TASNEEM BEGUM
ROLL N0: 1602-18-737-112

```java
         if(arg.equals("Insert Admin"))
         {
                iadmin = new InsertAdmin();

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

        else if(arg.equals("Update Admin"))
        {
                uadmin = new UpdateAdmin();
                uadmin.addWindowListener(new WindowAdapter(){
                public void windowClosing(WindowEvent e)
          {
                        uadmin.dispose();
                }
                });
                uadmin.buildGUI();
        }

        else if(arg.equals("Delete Admin"))
        {
                dadmin = new DeleteAdmin();

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

        else if(arg.equals("Insert Events"))
        {
                ievents = new InsertEvents();
                ievents.addWindowListener(new WindowAdapter(){
                public void windowClosing(WindowEvent e)
           {
                        ievents.dispose();
                }
                });
                ievents.buildGUI();
        }
        else if(arg.equals("Update Events"))
        {
                uevents = new UpdateEvents();
                uevents.addWindowListener(new WindowAdapter(){
                public void windowClosing(WindowEvent e)
                {
                        uevents.dispose();
                }
                });
                uevents.buildGUI();
        }
        else if(arg.equals("Delete Events"))
        {
                devents = new DeleteEvents();
                devents.addWindowListener(new WindowAdapter(){
                public void windowClosing(WindowEvent e)
```

TASNEEM BEGUM
ROLL N0: 1602-18-737-112

```java
                {
                        devents.dispose();
                }
                });
                devents.buildGUI();
        }
        else if(arg.equals("Insert Player"))
        {
                iplayer = new InsertPlayer();
                iplayer.addWindowListener(new WindowAdapter(){
                public void windowClosing(WindowEvent e)
                {
                        iplayer.dispose();
                }
                });
                iplayer.buildGUI();
        }
        else if(arg.equals("Update Player"))
        {
                uplayer = new UpdatePlayer();
                uplayer.addWindowListener(new WindowAdapter(){
                public void windowClosing(WindowEvent e)
                {
                        uplayer.dispose();
                }
                });
                uplayer.buildGUI();
        }
        else if(arg.equals("Delete Player"))
        {
                dplayer = new DeletePlayer();
                dplayer.addWindowListener(new WindowAdapter(){
                public void windowClosing(WindowEvent e)
                {
                        dplayer.dispose();
                }
                });
                dplayer.buildGUI();
        }
        else if(arg.equals("Insert Tracks"))
        {
                itracks = new InsertTracks();
                itracks.addWindowListener(new WindowAdapter(){
                public void windowClosing(WindowEvent e)
                {
                        itracks.dispose();
                }
                });
                itracks.buildGUI();
        }
        else if(arg.equals("Update Tracks"))
        {
                utracks = new UpdateTracks();
                utracks.addWindowListener(new WindowAdapter(){
                public void windowClosing(WindowEvent e)
                {
                        utracks.dispose();
                }
                });
                utracks.buildGUI();
        }
        else if(arg.equals("Delete Tracks"))
        {
                dtracks = new DeleteTracks();
                dtracks.addWindowListener(new WindowAdapter(){
```

TASNEEM BEGUM
ROLL N0: 1602-18-737-112

```java
                    public void windowClosing(WindowEvent e)
                    {
                            dtracks.dispose();
                    }
                    });
                    dtracks.buildGUI();
            }
            else if(arg.equals("Insert Participate"))
            {
                    iparticipate = new InsertParticipate();
                    iparticipate.addWindowListener(new WindowAdapter(){
                    public void windowClosing(WindowEvent e)
                    {
                            iparticipate.dispose();
                    }
                    });
                    iparticipate.buildGUI();
            }
            else if(arg.equals("Update Participate"))
            {
                    uparticipate = new UpdateParticipate();
                    uparticipate.addWindowListener(new WindowAdapter(){
                    public void windowClosing(WindowEvent e)
                    {
                            uparticipate.dispose();
                    }
                    });
                    uparticipate.buildGUI();
            }
            else if(arg.equals("Delete Participate"))
            {
                    dparticipate = new DeleteParticipate();
                    dparticipate.addWindowListener(new WindowAdapter(){
                    public void windowClosing(WindowEvent e)
                    {
                            dparticipate.dispose();
                    }
                    });
                    dparticipate.buildGUI();
            }


    }


    public static void main(String ... args)
    {
            new HockeyClubEventTracker();
    }
}
```

ii) GitHub Link and folder structure:

Link-https://github.com/tasneembegum/Tasneem-Begum

TASNEEM BEGUM
ROLL N0: 1602-18-737-112

Folder Structure:

1.HockeyClubEventActivityTracker.pdf
2.MiniProjectReport.pdf
3.1602-18-737-112.zip

1602-18-737-112

HockeyClubEventTracke

→ .settings
→ bin
→ src
→ .classpath
→ .project
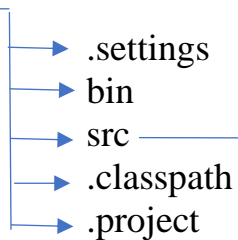
dml operations and
connectivity programs for 5 tables

f) Testing:

If incorrect values are entered which mismatch datatypes, the
following error pop up box is shown:

TASNEEM BEGUM
ROLL N0: 1602-18-737-112
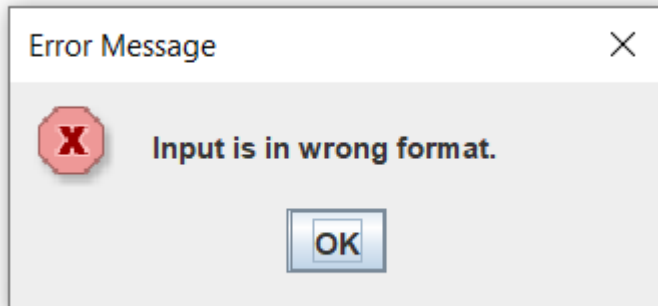
RESULTS

Main Program when run displays the following window frame from which all tables can be accessed and different DML operations can be performed:
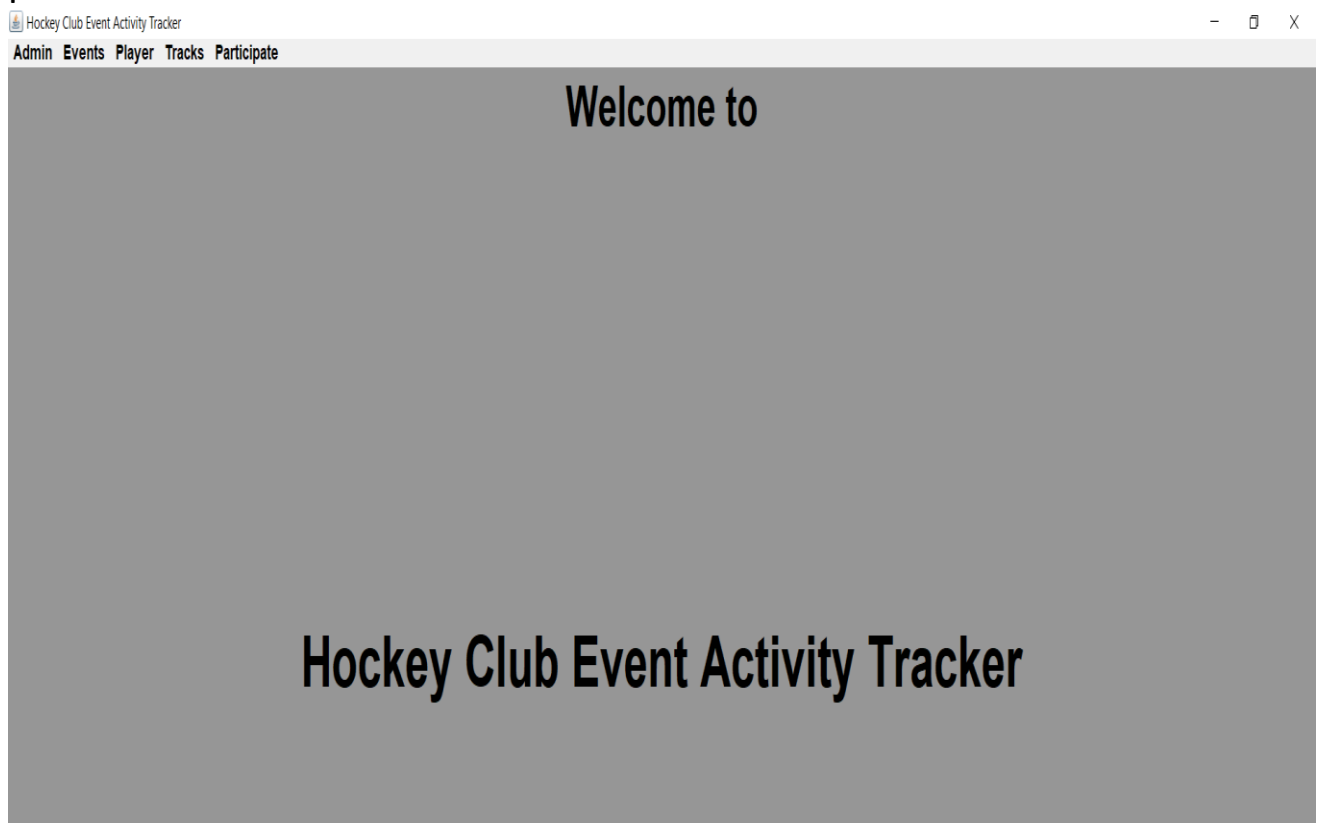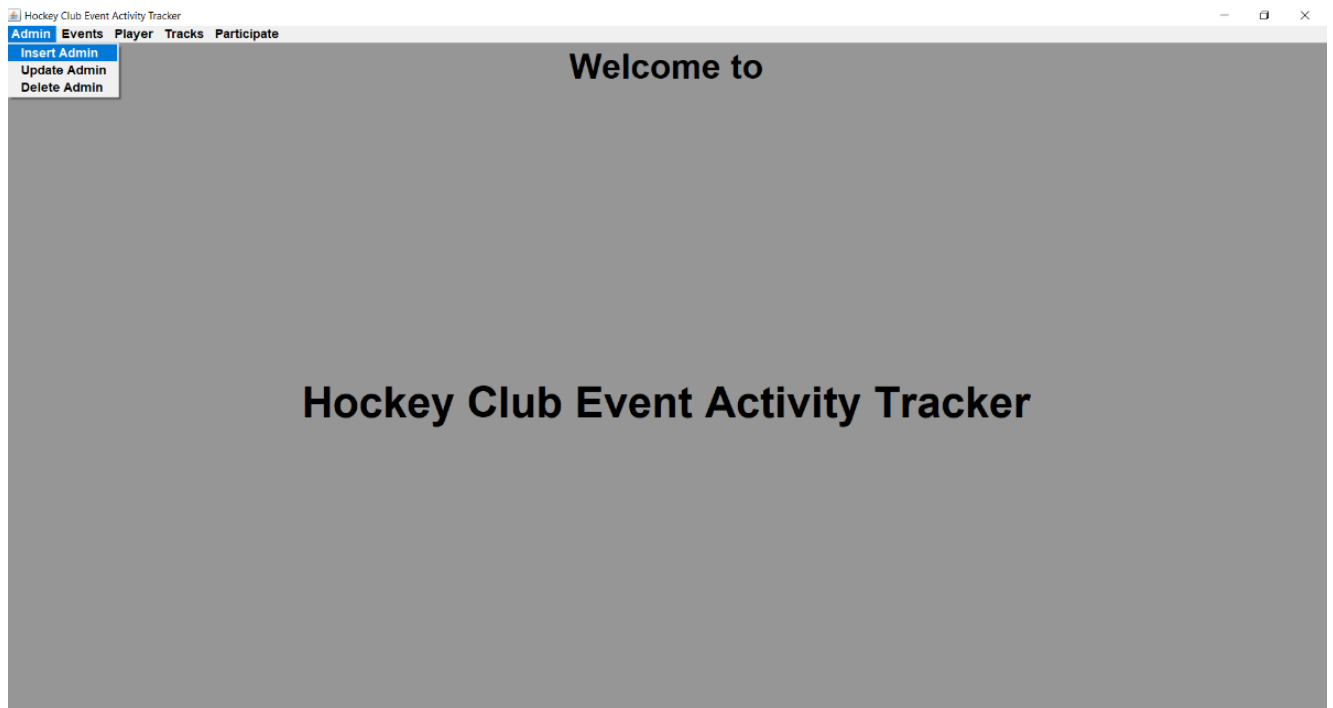
Here are DML operations for Admin Table:

1.Inserting into Admin Table:

2. Updating Admin Table:

3. Delete Admin:

DISCUSSION & FUTURE WORK :

The application done till now is basically to store and track the details of few events of Hockey Club like different events taken place and players participated in that event. There are various other activities of club that can be stored and tracked, such as- details of company sponsored, different equipment's required, tickets details etc. And hence, for this number of entities and relationship between them will come into picture, which can be converted into first tables using SQL commands and then into GUI program using java code.

REFERENCES

https://www.oracle.com/in/database/technologies/112010-win64soft.html

https://www.youtube.com/watch?v=fMp63HsIRbc&t=107s