# JAVA AWT BASED- Online MOOC's year wise student database management system - SQL CONNECTIVITY USING JDBC

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Report

Submitted in partial fulfilment of the Requirements for the award of the Degree of

**BACHELOR OF ENGINEERING** 

IN

INFORMATION TECHNOLOGY

By

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#### **BONAFIDE CERTIFICATE**

This to certify that the project report titled "APTITUDE QUIZ EXAM ANALYSIS SYSTEM" project work of Mr.D.ABHIRAJ GOUD bearing Roll.no:1602-18-737-061 who carried out this project under my supervision in the IV semester for the academic year 2019-2020.

**B.LEELAVATHY** 

<u>Signature</u> examiner <u>Signature</u> external internal examiner

## ABSTRACT:

The analysis of student performance in aptitude quiz exam can be done using this application as a mediator interface.

The student details are entered along with the examination center details of aptitude quiz exam. Everyone gets a score card wherein they get the marks of each section and get the result whether they are passed or failed.

The database consists of the student details and the score card of each and every student in that particular list.

## Requirement Analysis:

#### *List of tables:*

- Student details
- writes/attempts
- Aptitude quiz exam
- Scores
- Marks scored

*List of attributes with their domain types:* 

### Student\_details:

NAME: VARCHAR<sub>2</sub>(20)

HALLTICKET: NUMBER (5)

MAIL\_ID: VARCHAR<sub>2</sub>(20)

CLASS: VARCHAR<sub>2</sub>(20)

Apptitude\_quiz\_exam:

DURATION NUMBER(5)

HALLTICKET VARCHAR<sub>2</sub>(20)

EXAM\_CENTER VARCHAR2(20)

Marks\_scored:

LOGICAL\_REASONING NUMBER(5)

VERBAL\_ABILITY NUMBER(5)

QUANTITATIVE\_APTITUDE NUMBER(5)

RESULT VARCHAR2(10)

SHEET\_ID VARCHAR2(10)

APTITUDE\_QUIZ\_MARKS:

RANK NUMBER(10)

SHEET\_ID VARCHAR<sub>2</sub>(10)

HALLTICKET VARCHAR2(10)

STUDENT\_APTITUDE\_QUIZ\_EXAM:

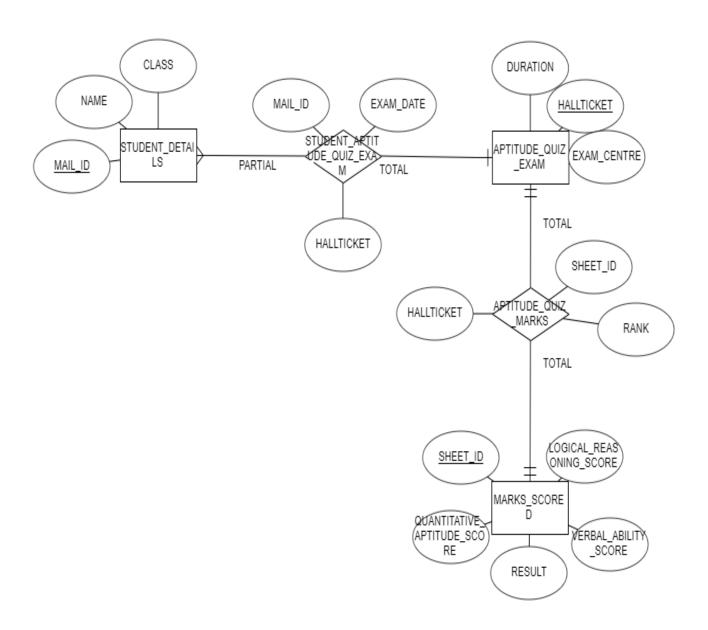
EXAM\_DATE DATE

MAIL\_ID VARCHAR<sub>2</sub>(10)

### HALLTICKET

VARCHAR2(10)

ER DIAGRAM:



## MAPPING CARDINALITIES AND PARTICIPATION CONSTRAINTS:

- One student can give any number of exams, so many to one cardinality suit writes.
- Each student who writes the exam has one score card, so one to one cardinality suit scores.
- → All the students might not write the exam so the student details is partial.
- → All the exams written are related to students so it is total.
- → Marks scored by students in the exam must be related to the exam so it is total participation.

#### **DDL AND DML COMMANDS:**

```
SQL>create table student_details(
     2 hallticket number(5) primary key,
     3 name varchar2(20),
     4 mail_id varchar2(20),
     5 class varchar2(20));
Table created.
SQL> create table aptitude_quiz_exam(
 2 duration number(5),
 3 hallticket varchar2(20),
 4 exam_center varchar2(20));
Table created.
SQL> create table marks_scored(
 2 logical_reasoning number(5),
 3 verbal_ability number(5),
 4 quantitative_aptitude number(5),
 5 result varchar2(20),
 6 hallticket number(5));
```

```
Table created.
```

```
SQL> create table APTITUDE_QUIZ_MARKS(
 2 rank number(10));
3 sheet_id varchar2(20);
4 hallticket varchar2(20);
Table created.
SQL> create table STUDENT_APTITUDE_QUIZ_EXAM (
 2 exam_date date);
Table created.
SQL> desc student_details;
                        Null? Type
Name
                            NOT NULL NUMBER(5)
HALLTICKET
NAME
                             VARCHAR2(20)
                              VARCHAR2(20)
MAIL_ID
                             VARCHAR2(20)
CLASS
```

SQL> desc aptitude\_quiz\_exam; Null? Type Name **DURATION** NUMBER(5) **HALLTICKET** VARCHAR2(20) EXAM\_CENTER VARCHAR2(20) SQL> desc marks\_scored; Null? Type Name LOGICAL\_REASONING NUMBER(5) VERBAL\_ABILITY NUMBER(5) QUANTITATIVE\_APTITUDE NUMBER(5) VARCHAR2(20) **RESULT** NUMBER(5) **HALLTICKET** 

SQL> desc APTITUDE\_QUIZ\_MARKS; Name Null? Type NUMBER(10) **RANK HALLTICKET** VARCHAR2(20) SHEET\_ID VARCHAR2(20) SQL> DESC STUDENT\_APTITUDE\_QUIZ\_EXAM; Null? Type Name MAIL\_ID VARCHAR2(20) **HALLTICKET** VARCHAR2(20) VARCHAR2(20) EXAM\_DATE SQL> alter table scores( 2 alter table scores add (hallticket number(5)); Table altered.

SQL> alter table writes add(hallticket number(5));

Table altered.

SQL> insert into student\_details values(&hallticket,'&name','&mail\_id','&class');

Enter value for hallticket: 061

Enter value for name: abhi

Enter value for mail\_id: <a href="mail-abhi123@gmail.com"><u>abhi123@gmail.com</u></a>

Enter value for class: btech 2nd year

old 1: insert into student\_details values(&hallticket,'&name','&mail\_id','&class')

new 1: insert into student\_details values(061,'abhi','abhi123@gmail.com','btech 2nd year')

1 row created.

SQL> /

Enter value for hallticket: 071

Enter value for name: ajay

Enter value for mail\_id: <a href="mail\_ajayband@yahoo.com">ajayband@yahoo.com</a> Enter value for class: btech 4th year old insert into student details 1: values(&hallticket,'&name','&mail\_id','&class') into student details insert new 1: <u>values(071,'ajay','ajayband@yahoo.com','btech</u> 4th year') 1 row created. SQL> / Enter value for hallticket: 88 Enter value for name: badri Enter value for mail id: badri143@gmail.com Enter value for class: btech 3rd year old student details insert into 1: values(&hallticket,'&name','&mail\_id','&class') insert into student details 1: new values(88, 'badri', 'badri143@gmail.com', 'btech 3rd year') 1 row created. SQL> /

Enter value for hallticket: 98

Enter value for name: ram

Enter value for mail\_id: <a href="mail-id:ramnath@gmail.com">ramnath@gmail.com</a>

Enter value for class: btech2nd year

old 1: insert into student\_details values(&hallticket,'&name','&mail\_id','&class')

new 1: insert into student\_details <a href="mailto:values(98,'ram','ramnath@gmail.com','btech2nd">values(98,'ram','ramnath@gmail.com','btech2nd</a> year')

1 row created.

SQL> /

Enter value for hallticket: 110

Enter value for name: vaishnavi

Enter value for mail\_id: <a href="mail-vaisho4@gmail.com"><u>vaisho4@gmail.com</u></a>

Enter value for class: btech 2nd year

old 1: insert into student\_details values(&hallticket,'&name','&mail\_id','&class')

new 1: insert into student\_details <a href="mailto:values(110,'vaishnavi','vaisho4@gmail.com','btech">values(110,'vaishnavi','vaisho4@gmail.com','btech</a> 2nd year')

1 row created.

SQL> insert into aptitude\_quiz\_exam values (&duration,'&hallticket','&exam\_center');

Enter value for duration: 3

Enter value for hallticket: 061

Enter value for exam\_center: banjara hills

old 1: insert into aptitude\_quiz\_exam values (&duration,'&hallticket','&exam\_center')

new 1: insert into aptitude\_quiz\_exam values (3,'061','banjara hills')

1 row created.

SQL>/

Enter value for duration: 3

Enter value for hallticket: 071

Enter value for exam\_center: narsingi

old 1: insert into aptitude\_quiz\_exam values (&duration,'&hallticket','&exam\_center')

new 1: insert into aptitude\_quiz\_exam values (3,'071','narsingi')

1 row created.

```
SQL>/
```

Enter value for duration: 3

Enter value for hallticket: 88

Enter value for exam\_center: mehdipatnam

old 1: insert into aptitude\_quiz\_exam values (&duration,'&hallticket','&exam\_center')

new 1: insert into aptitude\_quiz\_exam values (3,'88','mehdipatnam')

1 row created.

SQL>/

Enter value for duration: 3

Enter value for hallticket: 98

Enter value for exam\_center: miyapur

old 1: insert into aptitude\_quiz\_exam values (&duration,'&hallticket','&exam\_center')

new 1: insert into aptitude\_quiz\_exam values (3,'98','miyapur')

1 row created.

```
SQL>/
```

Enter value for duration: 3

Enter value for hallticket: 110

Enter value for exam\_center: jubliee hills

old 1: insert into aptitude\_quiz\_exam values (&duration,'&hallticket','&exam\_center')

new 1: insert into aptitude\_quiz\_exam values (3,'110','jubliee hills')

1 row created.

SQL> insert into marks\_scored values(&logical\_reasoning,&verbal\_ability,&quantitative\_ap titude,'&result',&hallticket);

Enter value for logical\_reasoning: 22

Enter value for verbal\_ability: 21

Enter value for quantitative\_aptitude: 20

Enter value for result: pass

Enter value for hallticket: 061

old 1: insert into marks\_scored values(&logical\_reasoning,&verbal\_ability,&quantitative\_ap titude,'&result',&hallticket)

new 1: insert into marks\_scored values(22,21,20,'pass',061) 1 row created. SQL> / Enter value for logical\_reasoning: 09 Enter value for verbal\_ability: 11 Enter value for quantitative\_aptitude: 1 Enter value for result: fail Enter value for hallticket: 071 old insert marks scored into 1: values(&logical\_reasoning,&verbal\_ability,&quantitative\_ap titude, '&result', &hallticket) new 1: insert into marks\_scored values(09,11,1,'fail',071) 1 row created. SQL> / Enter value for logical\_reasoning: 19 Enter value for verbal\_ability: 16 Enter value for quantitative\_aptitude: 14 Enter value for result: pass

Enter value for hallticket: 88 old insert marks scored 1: into values(&logical\_reasoning,&verbal\_ability,&quantitative\_ap titude, '&result', &hallticket) new 1: insert into marks\_scored values(19,16,14,'pass',88) 1 row created. SQL> / Enter value for logical\_reasoning: 3 Enter value for verbal\_ability: 2 Enter value for quantitative\_aptitude: 4 Enter value for result: fail Enter value for hallticket: 98 old marks scored insert into 1: values(&logical\_reasoning,&verbal\_ability,&quantitative\_ap titude, '&result', &hallticket) new 1: insert into marks\_scored values(3,2,4,'fail',98) 1 row created. SQL> /

Enter value for logical\_reasoning: 24

Enter value for verbal\_ability: 25

Enter value for quantitative\_aptitude: 23

Enter value for result: pass

Enter value for hallticket: 110

old 1: insert into marks\_scored values(&logical\_reasoning,&verbal\_ability,&quantitative\_ap titude,'&result',&hallticket)

new 1: insert into marks\_scored values(24,25,23,'pass',110)

1 row created.

SQL> insert into writes values('&exam\_date',&hall\_ticket);

Enter value for exam\_date: 03-FEB-2020

Enter value for hall\_ticket: 061

old 1: insert into writes values('&exam\_date',&hall\_ticket)

new 1: insert into writes values('03-FEB-2020',061)

1 row created.

SQL> /

Enter value for exam\_date: 03-FEB-2020

Enter value for hall\_ticket: 071

```
old 1: insert into writes values('&exam_date',&hall_ticket)
```

new 1: insert into writes values('03-FEB-2020',071)

1 row created.

SQL>/

Enter value for exam\_date: 03-FEB-2020

Enter value for hall\_ticket: 88

old 1: insert into writes values('&exam\_date',&hall\_ticket)

new 1: insert into writes values('03-FEB-2020',88)

1 row created.

SQL>/

Enter value for exam\_date: 19-OCT-2019

Enter value for hall\_ticket: 98

old 1: insert into writes values('&exam\_date',&hall\_ticket)

new 1: insert into writes values('19-OCT-2019',98)

1 row created.

SQL>/

Enter value for exam\_date: 03-FEB-2020

Enter value for hall\_ticket: 110

old 1: insert into writes values('&exam\_date',&hall\_ticket)

new 1: insert into writes values('03-FEB-2020',110)

1 row created.

SQL> INSERT INTO scores values(&rank,&hallticket);

Enter value for rank: 1

Enter value for hallticket: 061

old 1: INSERT INTO scores values(&rank,&hallticket)

new 1: INSERT INTO scores values(1,061)

1 row created.

SQL>/

Enter value for rank: 9999

Enter value for hallticket: 071

old 1: INSERT INTO scores values(&rank,&hallticket)

new 1: INSERT INTO scores values(9999,071)

1 row created.

SQL>/

Enter value for rank: 179767246

Enter value for hallticket: 88

old 1: INSERT INTO scores values(&rank,&hallticket)

new 1: INSERT INTO scores values(179767246,88)

1 row created.

SQL>/

Enter value for rank: 97536

Enter value for hallticket: 98

old 1: INSERT INTO scores values(&rank,&hallticket)

new 1: INSERT INTO scores values (97536,98)

1 row created.

SQL> /

Enter value for rank: 432

Enter value for hallticket: 110

old 1: INSERT INTO scores values(&rank,&hallticket)

new 1: INSERT INTO scores values(432,110)

1 row created.

SQL> select \* from student\_details;

HALLTICKET NAM	E MAIL_ID	CLASS
61 abhi	abhi123@gmail.com	btech 2nd year
71 ajay	ajayband@yahoo.com	btech 4th year
88 badri	badri143@gmail.com	btech 3rd year
98 ram	ramnath@gmail.com	btech2ndyear
110 vaishnavi	vaisho4@gmail.com	btech2ndyear

SQL> select \* from aptitude\_quiz\_exam;

DURA	TION HALLTI	CKET EXAM_CENTER
3	061	banjara hills
3	071	narsingi
3	88	mehdipatnam

miyapur 98 3 jubliee hills 110 3 SQL> select \* from marks\_scored; LOGICAL\_REASONING VERBAL\_ABILITY QUANTITATIVE\_APTITUDE RESULT **HALLTICKET** 20 pass 22 21 61 ı fail 9 11 71 16 19 14 pass 88

LOGICAL\_REASONING
QUANTITATIVE\_APTITUDE RESULT

VERBAL\_ABILITY

------

--

#### **HALLTICKET**

-----

3 2 4 fail

98

24 25 23 pass

110

### SQL> select \* from STUDENT\_APTITUDE\_QUIZ\_EXAM;

MAIL_ID	HALLTICKET	EXAM_DATE
abhi123@gmai	l <u>.com</u> 061	03-FEB-2020
badri143@gma	il.com 88	03-FEB-2020
ajayband@yah	<u>00.com</u> 071	03-FEB-2020
ramnath@gma	<u>iil.com</u> 98	27-FEB-2020
vaisho4@gmai	l.com 110	03-FEB-2020

#### SQL> select \* from APTITUDE\_QUIZ\_MARKS;

RANK HALLTICKET		SHEET_ID
1	061	123
9999	071	134
179767246	88	145
97536	98	189
432	110	210

#### **DESCRIPTION:**

The code describes about the analysis of the student in aptitude quiz exam. The marks along with the result has been displayed of the student in this mini project.

#### **THROUGH THE PROJECT:**

This project helps to store data in a efficient way and it can be achieved through various sql commands and we can also store this for any future use and also we can save our data in a many different areas so we cannot lost all the data at once. The details cannot be lost so it is safer to use it.

#### **IMPLEMENTATION**

FRONT END PROGRAMS

1)insert aptitude quiz exam details:

package aptitude\_analysis;

import java.awt.FlowLayout;

import java.awt.GridLayout;

import java.awt.TextArea;

import java.awt.event.ActionEvent;

import java.awt.event.ActionListener;

import java.sql.Connection;

```
import java.sql.DriverManager;
import java.sql.SQLException;
import javax.swing.JButton;
import javax.swing.JFrame;
import javax.swing.JLabel;
import javax.swing.JOptionPane;
import javax.swing.JPanel;
import javax.swing.JTextField;
public class insert_aptitude_quiz_exam extends JFrame {
  /**
  */
  private static final long serialVersionUID = 1L;
  JPanel jp1,jp2,jp3;
  Connection con;
  int i;
  java.sql.Statement stmt;
  JLabel du;
```

```
JLabel ht;
  JLabel ec;
  JTextField d,h,e;
  TextArea ta;
  JButton in;
  void displaySQLErrors(SQLException e) {
  ta.append("\nSQLException:" + e.getMessage() +"\n");
  ta.append("SQLState: "+ e.getSQLState() + "\n");
  ta.append("VendorError: " + e.getErrorCode() + "\n");
}
  public insert_aptitude_quiz_exam()
  \{
    try {
      Class.forName("oracle.jdbc.driver.OracleDriver");
    } catch (ClassNotFoundException e) {
      // TODO Auto-generated catch block
      e.printStackTrace();
    try {
```

```
con=DriverManager.getConnection("jdbc:oracle:thin:@loca
lhost:1521:ORCL","project","vasavi");
    } catch (SQLException e) {
      // TODO Auto-generated catch block
      displaySQLErrors(e);
    }
    try {
      stmt=con.createStatement();
    } catch (SQLException e) {
      // TODO Auto-generated catch block
      displaySQLErrors(e);
    }
    du=new JLabel("Duration of exam");
    d=new JTextField(10);
    ht=new JLabel("Hall-ticket");
    h=new JTextField(10);
    ec=new JLabel("Exam-center");
    e=new JTextField(10);
    ta=new TextArea(20,100);
    in=new JButton("submit");
```

```
jpi=new JPanel(new FlowLayout());
    jp2=new JPanel(new FlowLayout());
    jp3=new JPanel(new FlowLayout());
    jp1.add(du);
    jp1.add(d);
    jp1.add(ht);
    jp1.add(h);
    jp1.add(ec);
    jp1.add(e);
    jp2.add(in);
    jp3.add(ta);
    add(jp1);
    add(jp2);
    add(jp3);
    setVisible(true);
    setSize(2000,1000);
    setTitle("Enter following details:");
    setLayout(new FlowLayout());
    pack();
in.addActionListener(new ActionListener() {
```

```
@Override
      public void actionPerformed(ActionEvent argo) {
         // TODO Auto-generated method stub
         try {
           String duration=d.getText();
           if(checkint(duration)==o) {
             JOptionPane.showMessageDialog(null,
"Duration should be an Integer");
             throw new Exception();
           i=stmt.executeUpdate("insert
                                                      into
                                           d.getText()
aptitude_quiz_exam
                          values
+",'"+h.getText()+"','"+e.getText()+"')");
         } catch (SQLException e) {
           // TODO Auto-generated catch block
           displaySQLErrors(e);
         } catch (Exception e1) {
           // TODO Auto-generated catch block
           e1.printStackTrace();
         }
         ta.append("\n Inserted "+i+"rows successfully");
```

```
});
public int checkint(String rank) {
try {
  Integer.parseInt(rank);
  return 1;
catch(Exception e) {
  return o;
```

```
2)update aptitude quiz exam details package aptitude_analysis;
```

```
import java.awt.FlowLayout;
import java.awt.GridLayout;
import java.awt.List;
import java.awt.TextArea;
import java.awt.event.ActionEvent;
import java.awt.event.ActionListener;
import java.awt.event.ItemEvent;
import java.awt.event.ItemListener;
import java.awt.event.ItemListener;
import java.ayl.Connection;
import java.sql.DriverManager;
```

```
import java.sql.ResultSet;
import java.sql.SQLException;
import javax.swing.JButton;
import javax.swing.JFrame;
import javax.swing.JLabel;
import javax.swing.JPanel;
import javax.swing.JTextField;
public class update_aptitude_quiz_exam extends JFrame{
  /**
  */
  private static final long serialVersionUID = 1L;
  JPanel jp1,jp2,jp3;
  Connection con;
  int i;
  java.sql.Statement stmt;
  JLabel du;
  JLabel ht;
```

```
JLabel ec;
JTextField d,h,e;
TextArea ta;
JButton in;
List lis;
ResultSet rs;
String sel;
void displaySQLErrors(SQLException e) {
  ta.append("\nSQLException:" + e.getMessage() +"\n");
  ta.append("SQLState: "+ e.getSQLState() + "\n");
  ta.append("VendorError: " + e.getErrorCode() + "\n");
}
public update_aptitude_quiz_exam()
{
  try {
    Class.forName("oracle.jdbc.driver.OracleDriver");
  } catch (ClassNotFoundException e) {
    // TODO Auto-generated catch block
    e.printStackTrace();
```

```
try {
con=DriverManager.getConnection("jdbc:oracle:thin:@loca
lhost:1521:ORCL","project","vasavi");
    } catch (SQLException e) {
      // TODO Auto-generated catch block
      e.printStackTrace();
    }
    try {
      stmt=con.createStatement();
    } catch (SQLException e) {
      // TODO Auto-generated catch block
      e.printStackTrace();
    }
    lis=new List();
    du=new JLabel("Duration of exam");
    d=new JTextField(10);
    ht=new JLabel("Hall-ticket");
    h=new JTextField(10);
    ec=new JLabel("Exam-center");
```

```
e=new JTextField(10);
ta=new TextArea(20,100);
in=new JButton("submit");
jpi=new JPanel(new FlowLayout());
jp2=new JPanel(new FlowLayout());
jp3=new JPanel(new FlowLayout());
jp1.add(du);
jp1.add(d);
jp1.add(ht);
jp1.add(h);
jp1.add(ec);
jp1.add(e);
jp2.add(in);
jp3.add(ta);
add(jp1);
add(jp2);
add(jp3);
add(lis);
try {
```

```
hallticket
      rs=stmt.executeQuery("select
                                                      from
aptitude_quiz_exam");
      while(rs.next()) {
         lis.add(rs.getString(1));
    } catch (SQLException e) {
      // TODO Auto-generated catch block
      displaySQLErrors(e);
    lis.addItemListener(new ItemListener() {
      @Override
      public void itemStateChanged(ItemEvent argo) {
         // TODO Auto-generated method stub
         try {
           sel=lis.getSelectedItem();
           rs=stmt.executeQuery("select
duration, hallticket, exam_center from aptitude_quiz_exam
where hallticket="+lis.getSelectedItem()+"");
         if(rs.next()) {
           d.setText(rs.getString(1));
```

```
h.setText(rs.getString(2));
           e.setText(rs.getString(3));
         } catch (SQLException e) {
           // TODO Auto-generated catch block
           displaySQLErrors(e);
    });
    setVisible(true);
    setSize(2000,1000);
    setTitle("Enter following details:");
    setLayout(new FlowLayout());
    pack();
in.addActionListener(new ActionListener() {
      @Override
      public void actionPerformed(ActionEvent argo) {
         // TODO Auto-generated method stub
```

```
try {
            i=stmt.executeUpdate("update
aptitude_quiz_exam
                                                        set
duration="+d.getText()+",exam_center=""+e.getText()+"'wh
ere hallticket=""+h.getText()+""");
         } catch (SQLException e) {
           // TODO Auto-generated catch block
           displaySQLErrors(e);
         }
         ta.append("\n Updated "+i+"rows successfully");
    });
3)delete aptitude quiz exam details
package aptitude_analysis;
import java.awt.FlowLayout;
import java.awt.GridLayout;
import java.awt.List;
import java.awt.TextArea;
```

```
import java.awt.event.ActionEvent;
import java.awt.event.ActionListener;
import java.awt.event.ItemEvent;
import java.awt.event.ItemListener;
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.ResultSet;
import java.sql.SQLException;
import javax.swing.JButton;
import javax.swing.JFrame;
import javax.swing.JLabel;
import javax.swing.JPanel;
import javax.swing.JTextField;
public class delete_aptitude_quiz_exam extends JFrame{
  /**
  */
  private static final long serialVersionUID = 1L;
```

```
JPanel jp1,jp2,jp3;
Connection con;
int i;
java.sql.Statement stmt;
JLabel du;
JLabel ht;
JLabel ec;
JTextField d,h,e;
TextArea ta;
JButton in;
List lis;
ResultSet rs;
String sel;
public delete_aptitude_quiz_exam()
{
  try {
    Class.forName("oracle.jdbc.driver.OracleDriver");
  } catch (ClassNotFoundException e) {
    // TODO Auto-generated catch block
    e.printStackTrace();
```

```
try {
con=DriverManager.getConnection("jdbc:oracle:thin:@loca
lhost:1521:ORCL","project","vasavi");
    } catch (SQLException e) {
      // TODO Auto-generated catch block
      e.printStackTrace();
    }
    try {
      stmt=con.createStatement();
    } catch (SQLException e) {
      // TODO Auto-generated catch block
      e.printStackTrace();
    }
    lis=new List();
    du=new JLabel("Duration of exam");
    d=new JTextField(10);
    ht=new JLabel("Hall-ticket");
    h=new JTextField(10);
    ec=new JLabel("Exam-center");
```

```
e=new JTextField(10);
ta=new TextArea(20,100);
in=new JButton("Delete");
jpi=new JPanel(new FlowLayout());
jp2=new JPanel(new FlowLayout());
jp3=new JPanel(new FlowLayout());
jp1.add(du);
jp1.add(d);
jp1.add(ht);
jp1.add(h);
jp1.add(ec);
jp1.add(e);
jp2.add(in);
jp3.add(ta);
add(jp1);
add(jp2);
add(jp3);
add(lis);
try {
```

```
hallticket
      rs=stmt.executeQuery("select
                                                      from
aptitude_quiz_exam");
      while(rs.next()) {
         lis.add(rs.getString(1));
    } catch (SQLException e) {
      // TODO Auto-generated catch block
      e.printStackTrace();
    lis.addItemListener(new ItemListener() {
      @Override
      public void itemStateChanged(ItemEvent argo) {
         // TODO Auto-generated method stub
         try {
           sel=lis.getSelectedItem();
           rs=stmt.executeQuery("select
duration, hallticket, exam_center from aptitude_quiz_exam
where hallticket="+lis.getSelectedItem()+"");
         if(rs.next()) {
           d.setText(rs.getString(1));
```

```
h.setText(rs.getString(2));
           e.setText(rs.getString(3));
         } catch (SQLException e) {
           // TODO Auto-generated catch block
           e.printStackTrace();
    });
    setVisible(true);
    setSize(2000,1000);
    setTitle("Enter following details:");
    setLayout(new FlowLayout());
    pack();
in.addActionListener(new ActionListener() {
       @Override
      public void actionPerformed(ActionEvent argo) {
         // TODO Auto-generated method stub
```

```
try {
           i=stmt.executeUpdate("delete
                                                      from
aptitude_quiz_exam where hallticket=""+h.getText()+""");
         } catch (SQLException e) {
           // TODO Auto-generated catch block
           e.printStackTrace();
         ta.append("\n deleted "+i+"rows successfully");
    });
4) Main Method
package aptitude_analysis;
import java.awt.FlowLayout;
import java.awt.event.ActionEvent;
import java.awt.event.ActionListener;
import javax.swing.JFrame;
```

```
import javax.swing.JMenu;
import javax.swing.JMenuBar;
import javax.swing.JMenuItem;
public class First_frame extends JFrame {
  /**
  */
  private static final long serialVersionUID = 1L;
  JMenuBar mnubar;
  JMenu m1,m2,m3,m4,m5;
  IMenuItem
in1,in2,in3,in4,in5,up1,up2,up3,up4,up5,dl1,dl2,dl3,dl4,dl5;
  public First_frame() {
    mnubar=new JMenuBar();
    m<sub>1</sub>=new JMenu("Student_Details");
    m2=new JMenu("Aprtitude_Quiz_Exam");
    m3=new JMenu("Marks_scored");
    m4=new JMenu("Aptitude_quiz_marks");
    m5=new JMenu("Student_Aptitude_quiz_exam");
```

```
ini=new JMenuItem("Insert");
up1=new JMenuItem("Update");
dli=new JMenuItem("Delete");
in2=new JMenuItem("Insert");
up2=new JMenuItem("Update");
dl2=new JMenuItem("Delete");
in3=new JMenuItem("Insert");
up3=new JMenuItem("Update");
dl3=new JMenuItem("Delete");
in4=new JMenuItem("Insert");
up4=new JMenuItem("Update");
dl4=new JMenuItem("Delete");
in5=new JMenuItem("Insert");
up5=new JMenuItem("Update");
dl5=new JMenuItem("Delete");
setVisible(true);
setSize(2000,1000);
setTitle("Aptitude Quiz Performance Analysis");
setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
setLayout(new FlowLayout());
```

```
setJMenuBar(mnubar);
mnubar.add(m1);
m1.add(in1);
m1.add(up1);
m1.add(dl1);
mnubar.add(m2);
m2.add(in2);
m2.add(up2);
m2.add(dl2);
mnubar.add(m3);
m3.add(in3);
m3.add(up3);
m3.add(dl3);
mnubar.add(m4);
m4.add(in4);
m4.add(up4);
m4.add(dl4);
mnubar.add(m5);
m5.add(in5);
m5.add(up5);
```

```
m5.add(dl5);
in1.addActionListener(new ActionListener() {
  @Override
  public void actionPerformed(ActionEvent e) {
    // TODO Auto-generated method stub
    new insert_student_details();
});
upi.addActionListener(new ActionListener() {
  @Override
  public void actionPerformed(ActionEvent argo) {
    // TODO Auto-generated method stub
    new update_student_details();
});
dli.addActionListener(new ActionListener() {
  @Override
```

```
public void actionPerformed(ActionEvent e) {
    // TODO Auto-generated method stub
    new delete_student_details();
});
in2.addActionListener(new ActionListener() {
  @Override
  public void actionPerformed(ActionEvent argo) {
    // TODO Auto-generated method stub
    new insert_aptitude_quiz_exam();
});
up2.addActionListener(new ActionListener() {
  @Override
  public void actionPerformed(ActionEvent argo) {
    // TODO Auto-generated method stub
    new update_aptitude_quiz_exam();
```

```
});
dl2.addActionListener(new ActionListener() {
  @Override
  public void actionPerformed(ActionEvent e) {
    // TODO Auto-generated method stub
    new delete_aptitude_quiz_exam();
});
in3.addActionListener(new ActionListener() {
  @Override
  public void actionPerformed(ActionEvent argo) {
    // TODO Auto-generated method stub
    new insert_marks_scored();
});
up3.addActionListener(new ActionListener() {
```

```
@Override
  public void actionPerformed(ActionEvent argo) {
    // TODO Auto-generated method stub
    new update_marks_scored();
});
dl3.addActionListener(new ActionListener() {
  @Override
  public void actionPerformed(ActionEvent e) {
    // TODO Auto-generated method stub
    new delete_marks_scored();
});
in4.addActionListener(new ActionListener() {
  @Override
  public void actionPerformed(ActionEvent argo) {
    // TODO Auto-generated method stub
```

```
new insert_aptitude_quiz_marks();
});
up4.addActionListener(new ActionListener() {
  @Override
  public void actionPerformed(ActionEvent argo) {
    // TODO Auto-generated method stub
    new update_aptitude_quiz_marks();
});
dl4.addActionListener(new ActionListener() {
  @Override
  public void actionPerformed(ActionEvent e) {
    // TODO Auto-generated method stub
    new delete_aptitude_quiz_marks();
});
```

```
in5.addActionListener(new ActionListener() {
  @Override
  public void actionPerformed(ActionEvent argo) {
    // TODO Auto-generated method stub
    new insert_student_Aptitude_quiz_exam();
});
up5.addActionListener(new ActionListener() {
  @Override
  public void actionPerformed(ActionEvent argo) {
    // TODO Auto-generated method stub
    new update_student_Aptitude_quiz_exam();
});
dl5.addActionListener(new ActionListener() {
  @Override
  public void actionPerformed(ActionEvent e) {
```

```
// TODO Auto-generated method stub
new delete_student_Aptitude_quiz_exam();
}
});

public static void main(String a[]) {
    new First_frame();
}
```

## <u>Java-SQL Connectivity with the Database:</u>

Java Database Connectivity (JDBC) is an application programming interface (API) for the programming language Java, which defines how a client may access a database. It is a Java-based data access technology used for Java database connectivity. It is part of the Java Standard Edition platform, from Oracle Corporation. It provides methods to query and update data in a database and is oriented towards relational databases.

```
Block of code for JAVA- SQL connectivity with JDBC:
public void connectToDB()
             try
connection=DriverManager.getConnection("jdbc:oracle:thi
n:@localhost:1521:orcl","project","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.err.println("Unable to find and load
driver");
System.exit(1);
}
```

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

#### **SOFTWARE USED:**

Java Eclipse, Oracle 11g Database, Java SE version 7, SQL\*Plus.

#### **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 for

AWT API such as TextField, Label, TextArea, RadioButton, CheckBox, Choice, List etc.

## **SQL**:

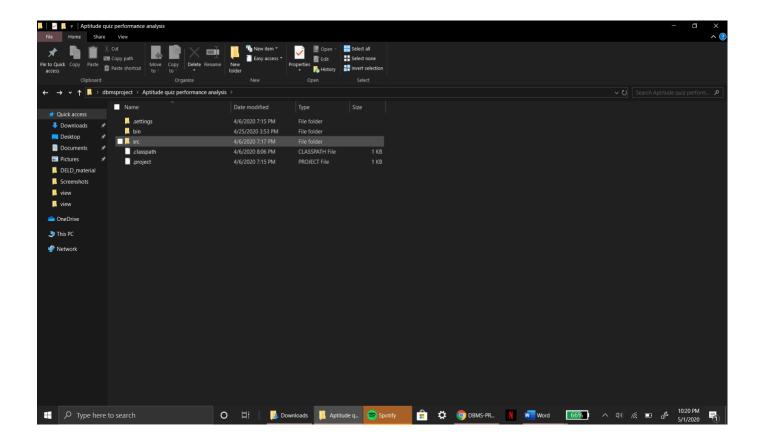
Structure Query Language(SQL) is a database query language used for storing and managing data in Relational DBMS. SQL was the first commercial language introduced for E.F Codd's Relational model of database. Today almost all RDBMS (MySQL, Oracle, Infomix, Sybase, MS Access) use SQL as the standard database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

#### **GITHUB LINK:**

https://github.com/abhirajgoud135/DBMS-PROJECT

#### **FOLDER STRUCTURE:**

This project contains a folder named src in which it has 5 different folders for different purposes each folder has 3 codes such as to make insert, delete, update. By this we can navigate easily to reach code and we can make many changes as we can want easily.

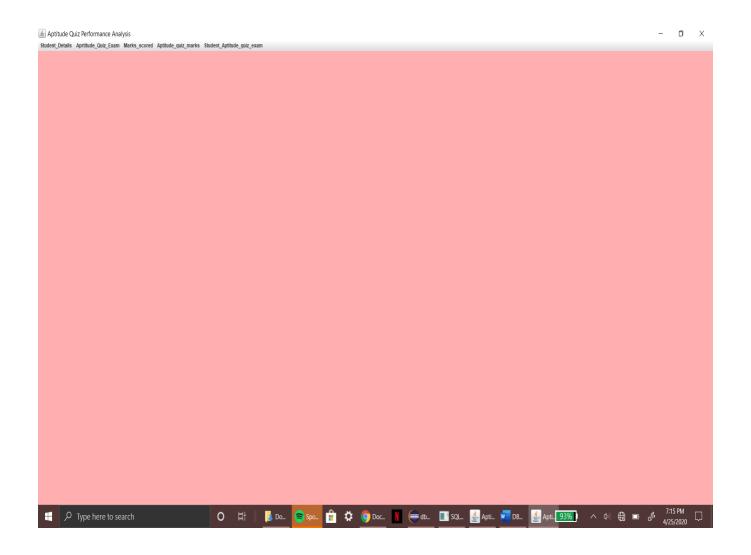


#### **TESTING**

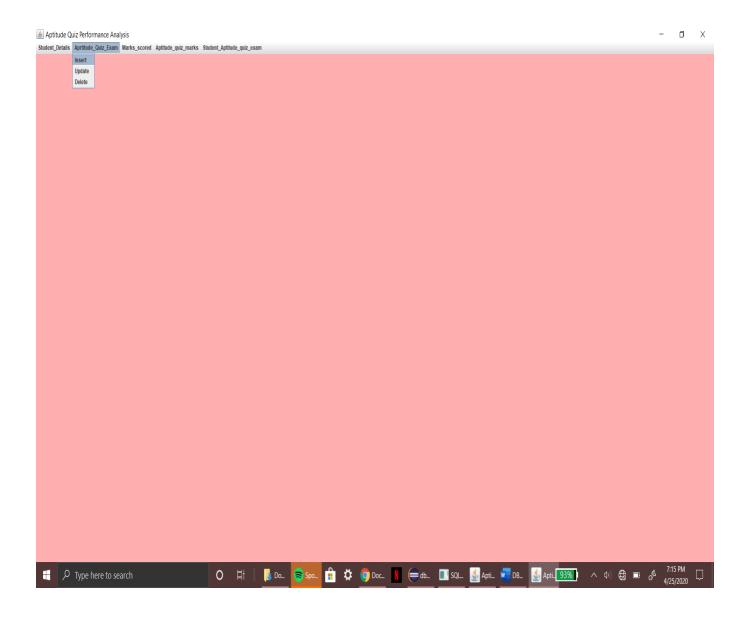
The program executes three basic operations those are insert update and delete on 5 different tables. Along with this, it also has an output column which gives information about how many rows have been edited. Errors syntactical or exceptional will be shown if occurred.

## **HOME PAGE:**

1)The home page represents the various options about the quiz and the details of students.

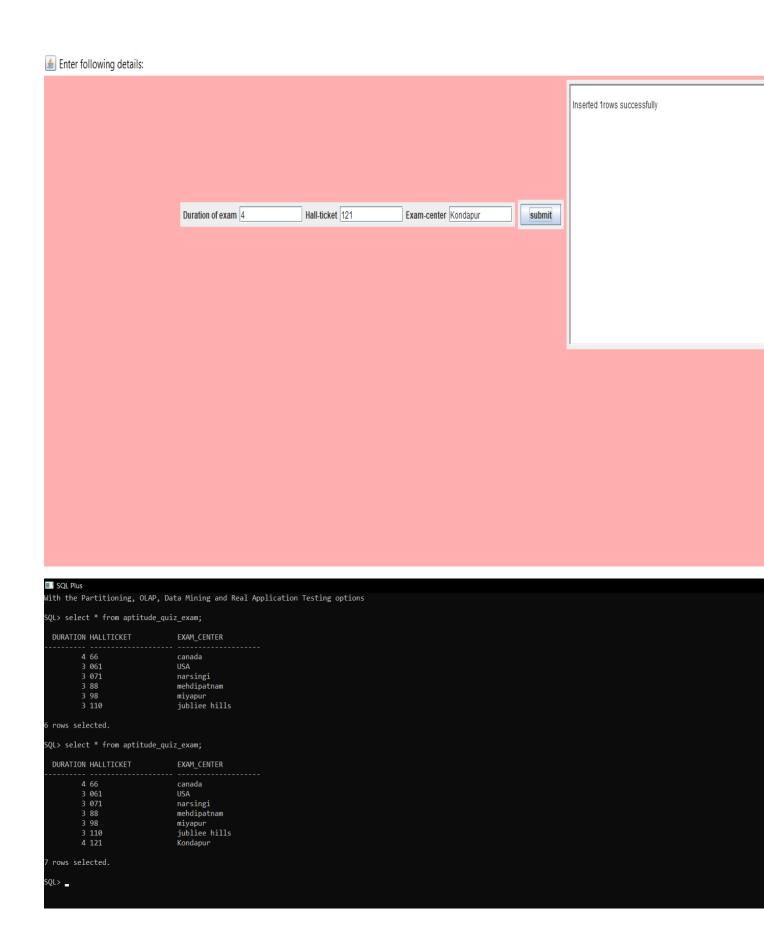


2) The second step checks the attributes present in the Aptitude\_quiz\_exam table and allows to select an option and glance the details of it.



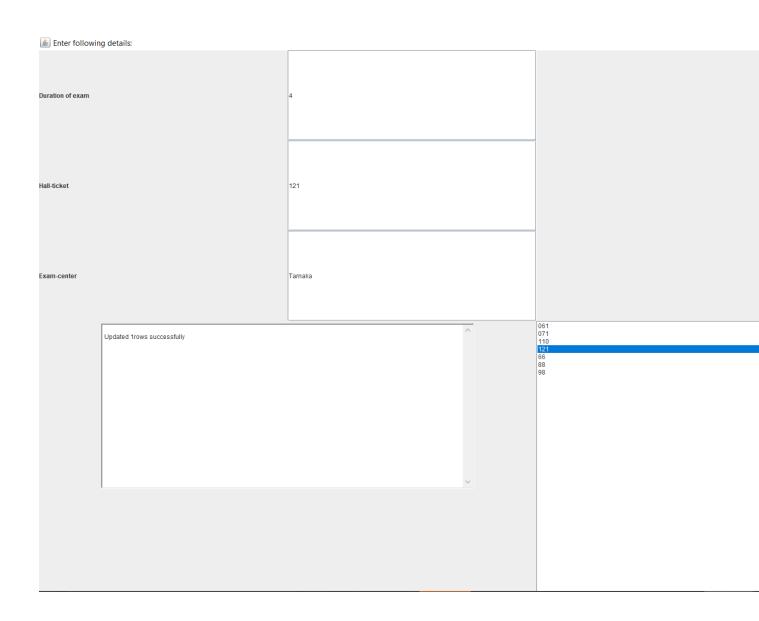
# **INSERT QUIZ DETAILS:**

3)The insert table allows us to insert a new hall-ticket into the table along with the duration and exam-center. If there are no errors the hall-ticket will be inserted successfully.



# **UPDATE QUIZ DETAILS:**

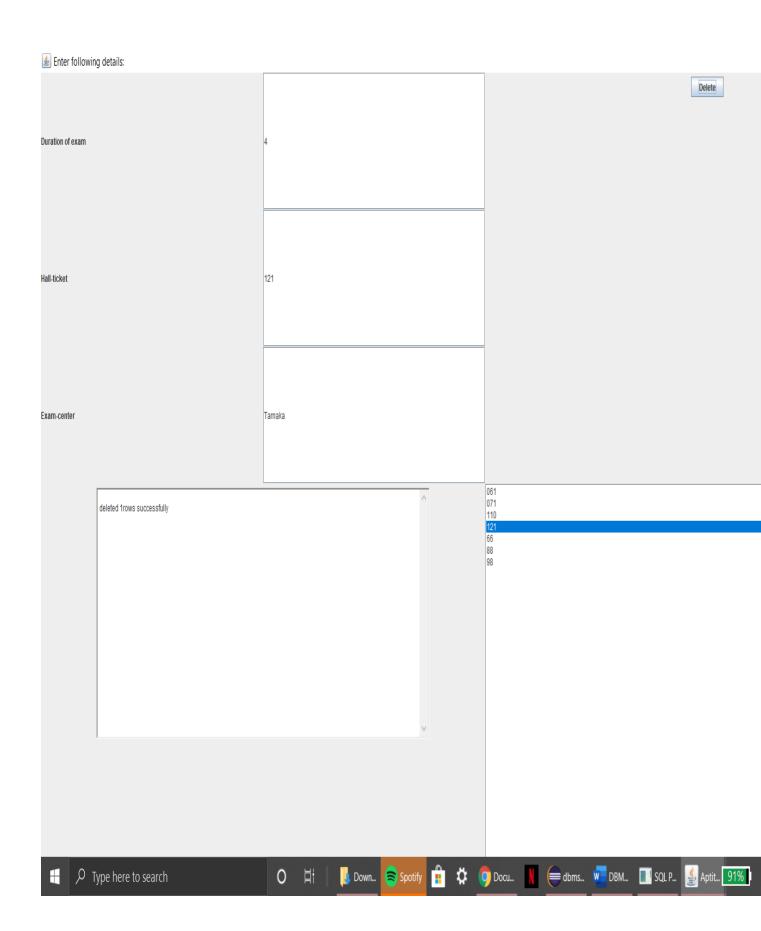
4)This step allows to update the table of the existing details; we should select the hall-ticket and then need to update the details.



```
SQL> select * from aptitude_quiz_exam;
 DURATION HALLTICKET
                              EXAM_CENTER
        4 121
                              Tarnaka
        3 061
                              USA
        3 071
                              narsingi
        3 88
                              mehdipatnam
        3 98
                              miyapur
        3 110
                              jubliee hills
 rows selected.
SQL>
```

# **DELETE QUIZ DETAILS:**

5)This step allows us to delete the row which is existing and then select the row and press delete then it automatically deletes the selected hall-ticket from the table.



```
QL> select * from aptitude_quiz_exam;

DURATION HALLTICKET EXAM_CENTER

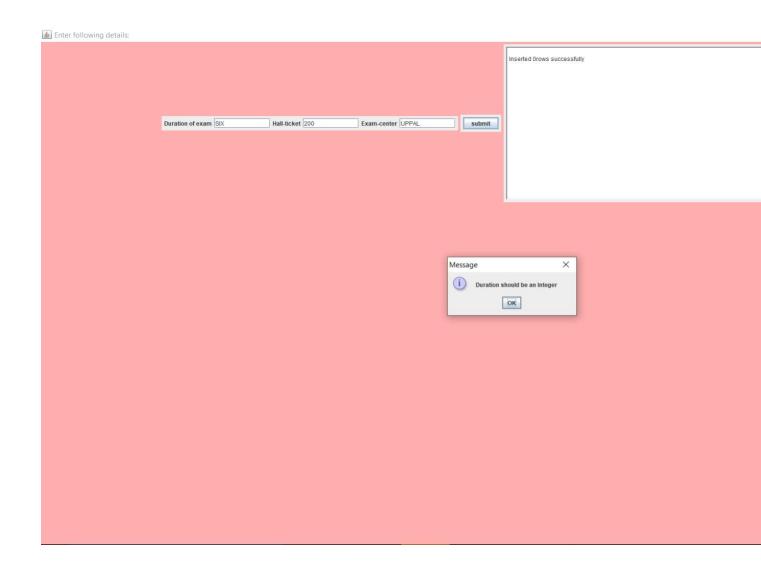
4 66 canada
4 121 Tarnaka
3 061 USA
3 071 narsingi
3 88 mehdipatnam
3 98 miyapur
3 110 jubliee hills

rows selected.

QL>
```

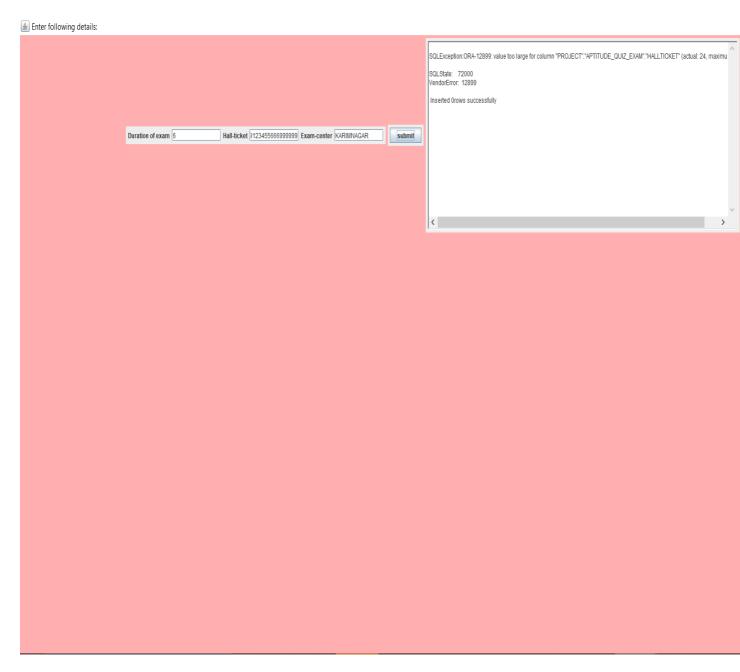
## **DIALOG BOX:**

6)This step pops a dialog box when we enter the duration in text as the datatype assigned to duration is number so we should enter only a number.



## **EXCEPTIONS**:

7)This step gives a sql message when there is an error when the size of the attribute is exceeded.



# **OUTPUTS OF REMAINING TABLES:**

STUDENT\_DETAILS TABLE:



### SGC PMS

### WHILD

### CLASS

### WHILD

### WHILD

### CLASS

### WHILD

### WHILD

### CLASS

### WHILD

Update following	ng details:			
Mail-id		kapoor123@gmail.com		submit
Name of the student		kapoor		
Class		btech 3rd year		
	Jpdated trows successfully		abhity2@gmail.com abhity3@gmail.com badri4@gmail.com dabb@gmail.com lagori72@gmail.com ramant@gmail.com vaish04@gmail.com	

■ SQL Plus With the Partitioning, OLAP, Data Mining and Real Application Testing options

SQL> select \* from student\_details;

NAME	MAIL_ID	CLASS
dabba	dabba@gmail.com	btech 4th year
abhi ajay	abhi123@gmail.com ajayband@yahoo.com	btech 2nd year btech 4th year
badrinath ram	badri143@gmail.com ramnath@gmail.com	btech 2nd year btech2nd year
vaishnavi	vaish04@gmail.com	btech 2nd year

6 rows selected.

SQL> select \* from student\_details;

NAME	MAIL_ID	CLASS
kapoor	kapoor123@gmail.com	btech 2nd year
dabba	dabba@gmail.com	btech 4th year
abhi	abhi123@gmail.com	btech 2nd year
ajay	ajayband@yahoo.com	btech 4th year
badrinath	badri143@gmail.com	btech 2nd year
ram	ramnath@gmail.com	btech2nd year
vaishnavi	vaish04@gmail.com	btech 2nd year

SQL> select \* from student\_details;

NAME	MAIL_ID	CLASS
kapoor	kapoor123@gmail.com	btech 3rd year
dabba	dabba@gmail.com	btech 4th year
abhi	abhi123@gmail.com	btech 2nd year
ajay	ajayband@yahoo.com	btech 4th year
badrinath	badri143@gmail.com	btech 2nd year
ram	ramnath@gmail.com	btech2nd year
vaishnavi	vaish04@gmail.com	btech 2nd year

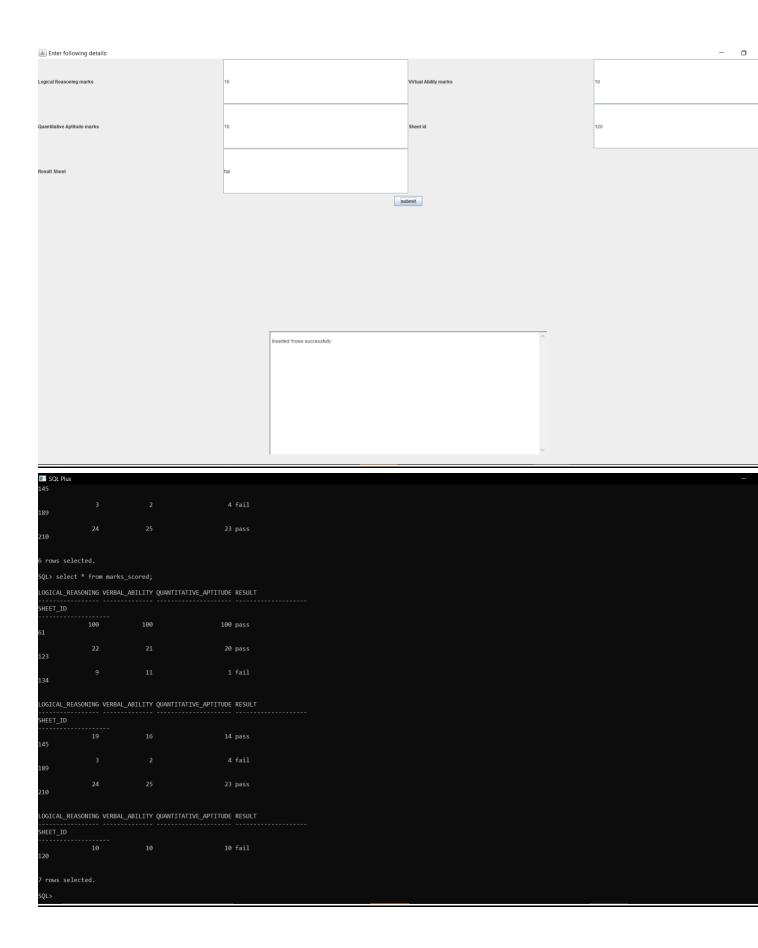
rows selected.

SQL>

abhi123@gmail.com ajayband@yaho.com badi143@gmail.com dabha@yanal.com dabha@yanal.com fargering.com	Name of the student	ı	kapoor
	Mail-id		kapoor123@gmail.com
	Class		btech 3rd year
Delete		Deleted frows successfully	

SQL Plus		_	Ć
dabba abhi	dabba@gmail.com abhi123@gmail.com	btech 4th year btech 2nd year	
ajay badrinath	ajayband@yahoo.com badri143@gmail.com	btech 4th year btech 2nd year	
ram	ramnath@gmail.com	btech2nd year	
vaishnavi	vaish04@gmail.com	btech 2nd year	
6 rows selected.			
SQL> select * from s	tudent_details;		
NAME	MAIL_ID	CLASS	
kapoor	kapoor123@gmail.com		
dabba abhi	dabba@gmail.com abhi123@gmail.com	btech 4th year btech 2nd year	
ajay badrinath	ajayband@yahoo.com badri143@gmail.com	btech 4th year btech 2nd year	
ram	ramnath@gmail.com	btech2nd year	
vaishnavi	vaish04@gmail.com	btech 2nd year	
7 rows selected.			
SQL> select * from s	tudent_details;		
NAME	MAIL_ID	CLASS	
kapoor	kapoor123@gmail.com		
dabba abhi	dabba@gmail.com abhi123@gmail.com	btech 4th year btech 2nd year	
ajay badrinath	ajayband@yahoo.com badri143@gmail.com	btech 4th year btech 2nd year	
ram	ramnath@gmail.com	btech2nd year	
vaishnavi	vaish04@gmail.com	btech 2nd year	
7 rows selected.			
SQL> select * from s	tudent_details;		
NAME	MAIL_ID	CLASS	
dabba	dabba@gmail.com	btech 4th year	
abhi ajay	abhi123@gmail.com ajayband@yahoo.com	btech 2nd year btech 4th year	
badrinath	badri143@gmail.com ramnath@gmail.com	btech 2nd year	
ram vaishnavi	vaish04@gmail.com	btech2nd year btech 2nd year	
6 rows selected.			
SQL>			

### MARKS\_SCORED TABLE:



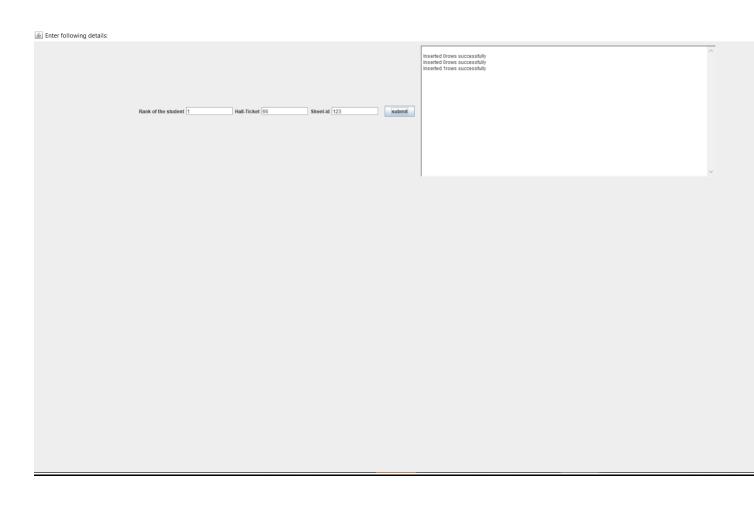
Enter following	g details:						- 0
Logical Reasoning ma	ırks	10	Virtual Ability marks	100		submit	
Quantitative Aptitude r	marks	10	Result Sheet	fail			
Sheet id		120					
	Updated 1rows succ	cessfully		^	1720 1223 134 145 189 270 61		
				V			

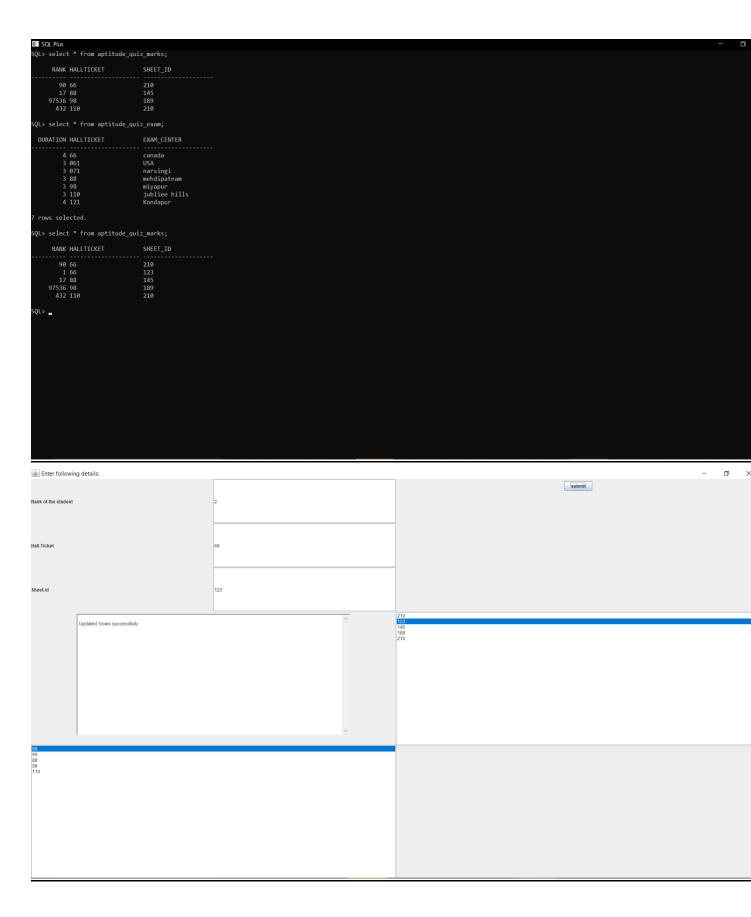
SQL Plus			
	SONTING VERDA	ARTITY OHANTITA	TIVE ADTITUDE DECILIT
		AL_ABILITY QUANTITA	TIVE_APTITUDE RESULT
SHEET_ID			
120	10	10	10 fail
7 rows sele			
SQL> select	* from mark	s_scored;	
			TIVE_APTITUDE RESULT
SHEET_ID			
61	100	100	100 pass
01	22	21	20 pass
123	22		20 μα33
134			1 fail
154			
			TIVE_APTITUDE RESULT
SHEET_ID			
	19		14 pass
145			
189			4 fail
	24		23 pass
210			
			TIVE_APTITUDE RESULT
 SHEET_ID			
	10	100	10 fail
120			
7 rows sele	estad		
	ctea.		
SQL> _			

Enter following	g details:					★ Enter following details:						
Logical Reasoning ma	irks	10	Virtual Ability marks	100			d	telete				
Quantitative Aptitude r	marks	10	Result Sheet	fail								
Sheet id		120			_							
	Deleted 1rows succe	essfully			^	120 123 134 145 189 210						
					v							

SQL Plus			
145			
			4 fail
189			
	24		23 pass
210			
LOCTCAL DE	EACONTNE VEDD	N ADTITIV CHANTIT	ATTUE ADTITUDE DECLUIT
			ATIVE_APTITUDE RESULT
SHEET_ID			
	10	100	10 fail
120			
7 rows sel	lected.		
QL> selec	ct * from mark	cs_scored;	
LOGICAL RE	EASONING VERBA	AL_ABILITY QUANTITA	ATIVE_APTITUDE RESULT
61	100	100	100 pass
J.			
123			20 pass
123			
134		11	1 fail
LOGICAL_RE	EASONING VERBA	AL_ABILITY QUANTITA	ATIVE_APTITUDE RESULT
145	19	16	14 pass
143			
189			4 fail
100			
210	24		23 pass
6 rows sel	lected.		
SQL>			

## APTITUDE\_QUIZ\_MARKS TABLE:







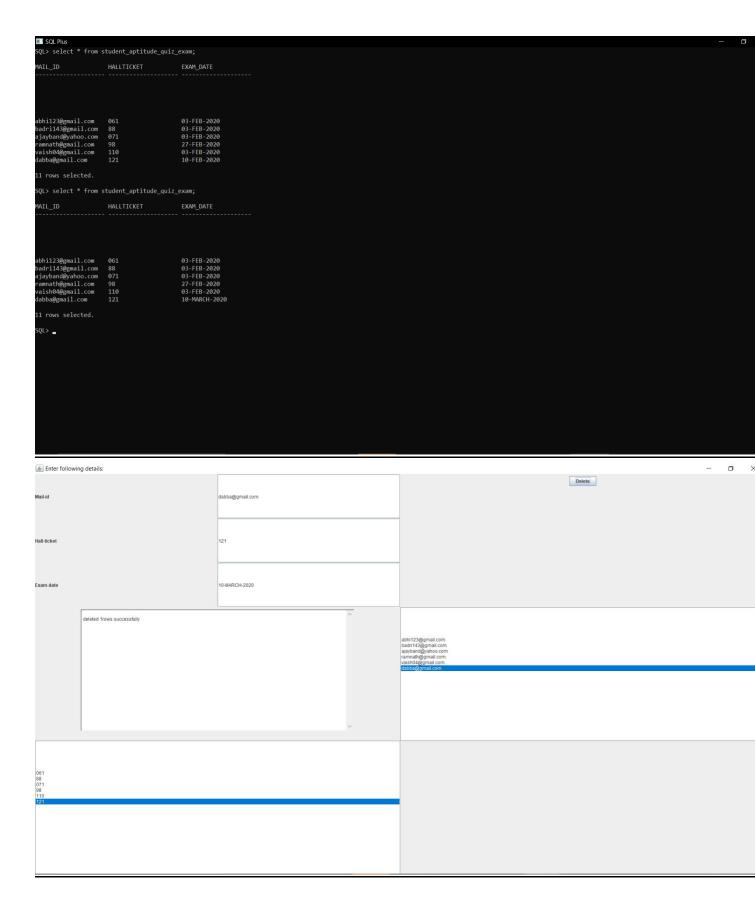
🕍 Enter following	l Enter following details:						
Rank of the student		2		Delete			
Hall-Ticket S		66					
- Sheet-id		123		- Face			
	deleted 1rows successfully		^	210 \$22 145 189 210			
7				270			
S							
66 S 88 98 110							
S							

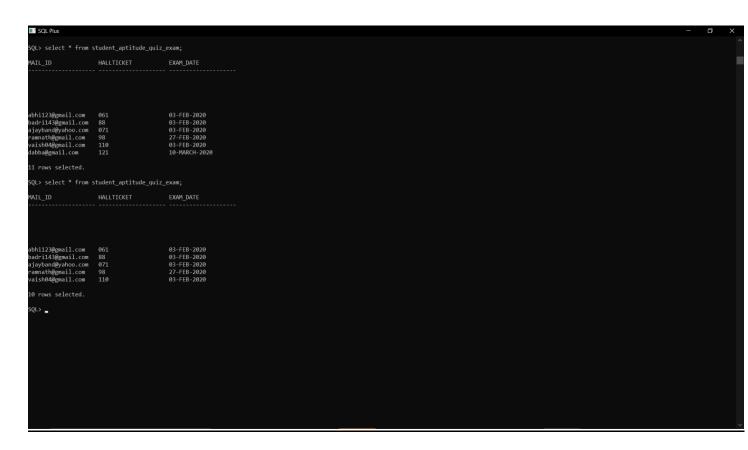
STUDENT\_APTITUDE\_QUIZ\_EXAM TABLE:

Mail-id		dabba@gmail.com	
Hall-licket		121	
Exam-date		10-FEB-2020	
	sul	mit	
	Inserted 1rows successfully		^
			v

SQL Plus		
SQL> select * from s	tudent_aptitude_qu	iiz_exam;
MAIL_ID	HALLTICKET	EXAM_DATE
		EXAM_DATE
abhi123@gmail.com	061 88	03-FEB-2020 03-FEB-2020
badri143@gmail.com ajayband@yahoo.com		03-FEB-2020 03-FEB-2020
ramnath@gmail.com	98	27-FEB-2020
vaish04@gmail.com	110	03-FEB-2020
10 rows selected.		
SQL> select * from s	student_aptitude_qu	iiz_exam;
MAIL_ID	HALLTICKET	EXAM_DATE
		EXAM_DATE
-LL:4220	064	03 FFR 2020
abhi123@gmail.com badri143@gmail.com	061 88	03-FEB-2020 03-FEB-2020
ajayband@yahoo.com		03-FEB-2020
ramnath@gmail.com	98	27-FEB-2020
vaish04@gmail.com	110	03-FEB-2020
dabba@gmail.com	121	10-FEB-2020
11 rows selected.		
601		
SQL>		

Enter following details:						
	dabba@gmail.com		submit			
	121					
	10-MARCH-2020					
pdated frows successfully	^		abhi123@gmail.com badni143@gmail.com ajayband@yahoo.com ramanta@gmail.com vash04@gmail.com dobbe@gmail.com Gobbe@gmail.com			
	V		obota cylinatoon			
		dabba@gmail.com  121  10-MARCH-2020	dabba@gmail.com  121  10-MARCH-2020			





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