

**JAVA AWT BASED-PLICKER CARD  
IMPLEMENTATION - SQL CONNECTIVITY USING  
JDBC**

A

*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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**UNDER THE GUIDANCE OF**

**B. LEELAVATHY**



**Department of Information Technology**

**Vasavi College of Engineering (Autonomous)**

## **Ibrahimbagh, Hyderabad-31**

**2020**

## BONAFIDE CERTIFICATE

This is to certify that the project report titled "***Plicker Card Implementation Database Management System***" is the bonafide project work of ***Ms. Renu Aakanksha Veeram*** bearing hall ticket no. ***1602-18-737-093*** who carried out this project work under my supervision in the IV semester for the academic year 2019-2020

Signature

**External Examiner**

Signature

**Internal Examiner**

## AIM:

To create a Java GUI based registration form which takes the values like: Student name, Instructor name, Admin name, Student ID, Instructor ID, Admin ID, Student score, Student remarks, Subject taught by the Instructor, Instructor Experience, Student's class, class for which Instructor teaches, Question no: , Question, Marks for a particular question, Answer no: , four options for a given question are the details taken from the user

## ***ABSTRACT***

*Plickers is a web tool that can be used for formative assessment even in a low technology classroom and hence found immensely beneficial to classrooms in rural south India where restrictions marginalise the 'Bring Your Own Device' concept. For its application, it requires only one computer, the Plickers mobile app installed to a smart phone and Plickers assessment cards. It has been proved to be an effective, timesaving, easy to use edu tech tool that can be used in Indian classrooms*

# INTRODUCTION

## REQUIREMENT ANALYSIS

*We require a total of 5 tables in order to keep a track of that database. One to store the details of the student, another for the details of the admin, one for instructor details and other 2 to store the details of the question and its options with correct option. The basic attributes are id, name of any entity, besides this, descriptive attributes are also present. Entity name can have a data type of char for attributes like name, question options to choose correct answer, student remarks, subject taught by the instructor. Number for score, class, exp and varchar2 for id.*

*The relationship between various entity sets helps in retrieval of the information and feedback of the queries.*

### **List of entities with their attributes and domain types**

*Student : id number(5) (primary key)*

*name char(20)*

*Score number(5)*

*Remarks char(20)*

*Class number(5)*

*Instructor : id number(5) (primary key)*

*Name char(20)*

*Subject char(20)*

*Experience number(5)*

*Class number(5)*

*Admin : id number(5) (primary key)*

*Name char(20)*

*Question : no. number(5) (primary key)*

*Question char(1000)*

*Marks awarded number(5)*

*Answer : id number(5) (primary key)*

*Opt1 char(20)*

*Opt2 char(20)*

*Opt3 char(20)*

*Opt4 char(20)*

*Crct\_answer : id number (5) foreign key from answer*

*No. number(5) foreign key from question*

*Taught : id number(5) foreign key from studentd*

*Id number(5) foreign key from instructor*

*Subject char(20)*

*Manage : id number(5) foreign key from student*

*Id number(5) foreign key from admin*

*Given\_ques: no. number(5) foreign key from question*

*Id number(5) foreign key from studentd*

## ***MAPPING CARDINALITIES AND PARTICIPATION CONSTRAINTS***

<i>Student details (many) participation</i>	<i>given_ques</i>	<i>question(many)-total</i>
---	-------------------	-----------------------------

<i>Student details(many) participation</i>	<i>manage</i>	<i>admin(one) – partial</i>
--	---------------	-----------------------------

<i>Question(one) participation</i>	<i>crct-ans</i>	<i>answer(one)- total</i>
--	-----------------	---------------------------

<i>Student details (many) participation</i>	<i>taught</i>	<i>Instructor(many)- partial</i>
---	---------------	----------------------------------

## ***SPECIAL GOAL OF THE PROJECT***

This project shows a different way of learning which makes studies interesting to both teachers and learners.

This project is made such that data is secure from all kinds of inputs and is safely stored in the database.

This project is user friendly .Even a non programmer can easily use the application.



➤ **Architecture and technology used:**

**SQL Plus** is the most basic Oracle Database utility with a basic command-line interface, commonly used by users, administrators and programmers.

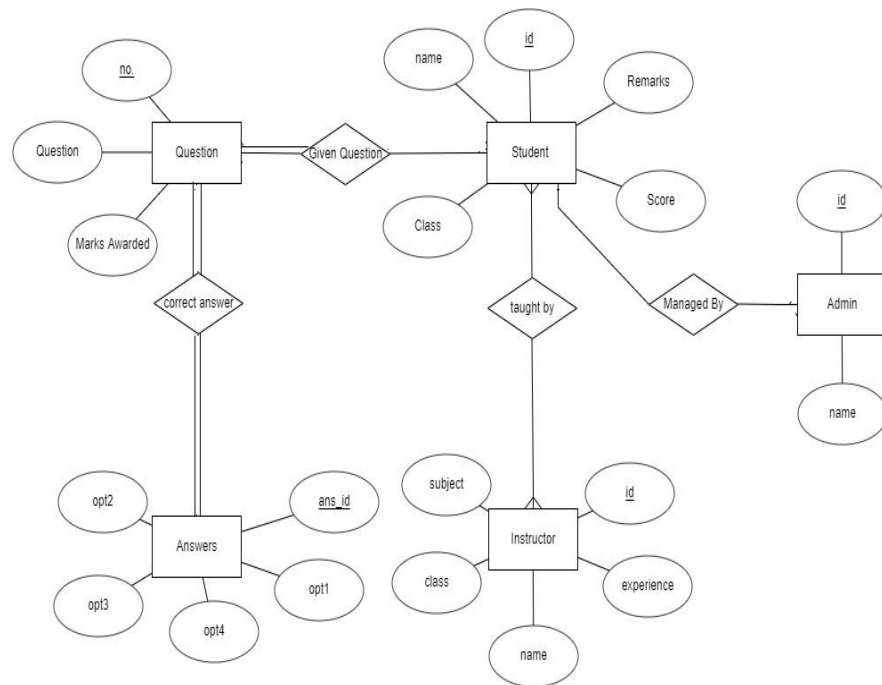
The interface of SQL Plus is used for creating the database. DDL and DML commands are implemented for operations being executed. The details of various Online MOOC's provider, courses, student, assignments, and results are stored in the form of tables in the database.

**Eclipse** 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.

Eclipse is written mostly in java and its primary use is for developing Java applications, but it may also be used to develop applications in other programming languages via plug-ins, including Erlang, JavaScripts etc.

The front end application code is written in “**Java**” using Eclipse. The portal for front end application is designed through Eclipse, runs and has the capacity to connect with the database which has data inserted using SQL.

## ENTITY RELATIONSHIP DIAGRAM



PLICKER CARD IMPLEMENTATION  
DBMS ASSIGNMENT

## ***DDL COMMANDS:***

```
SQL*Plus: Release 11.2.0.2.0 Production on Fri Feb 7 23:02:21 2020
Copyright (c) 1982, 2010, Oracle. All rights reserved.

SQL> conn system;
Enter password:
Connected.
SQL> create table studentD(sid number(5),sname char(20),class varchar2(10),score number(5),remark char(20));
Table created.

SQL> create table instuctor(tid number(5),tname char(20),tclass varchar(10),sub char(20),exp number(5));
Table created.

SQL> create table admin(aid number(5),aname char(20));
Table created.

SQL> create table ques(no number(5),ques char(20),marks number(5));
Table created.

SQL> create table ans(opt1 char(20),opt2 char(20),opt3 char(20),opt4 char(20));
Table created.

SQL> _
```

## PLICKER CARD IMPLEMENTATION DBMS ASSIGNMENT

```
Run SQL Command Line

SQL> desc studentd;
Name                                     Null?   Type
-----
SID                                     NOT NULL NUMBER(5)
SNAME                                   CHAR(20)
CLASS                                  VARCHAR2(10)
SCORE                                  NUMBER(5)
REMARK                                  CHAR(20)

SQL> desc instuctor;
Name                                     Null?   Type
-----
TID                                     NOT NULL NUMBER(5)
TNAME                                   CHAR(20)
TCLASS                                  VARCHAR2(10)
SUB                                    CHAR(20)
EXP                                    NUMBER(5)

SQL> desc admin;
Name                                     Null?   Type
-----
AID                                     NOT NULL NUMBER(5)
ANAME                                   CHAR(20)

SQL> desc ques;
Name                                     Null?   Type
-----
NO                                     NOT NULL NUMBER(5)
QUES                                   CHAR(20)
MARKS                                  NUMBER(5)

SQL> desc an;
ERROR:
ORA-04043: object an does not exist

SQL> desc ans;
Name                                     Null?   Type
-----
OPT1                                   CHAR(20)
OPT2                                   CHAR(20)
OPT3                                   CHAR(20)
OPT4                                   CHAR(20)
```

```
Run SQL Command Line

Name                                     Null?   Type
-----
SID                                     NUMBER(5)
NO                                     NUMBER(5)

SQL> desc crct_ans;
ERROR:
ORA-04043: object crct_ans does not exist

SQL> desc crct_answer;
Name                                     Null?   Type
-----
SID                                     NUMBER(5)
NO                                     NUMBER(5)

SQL> desc taught;
Name                                     Null?   Type
-----
SID                                     NUMBER(5)
TID                                     NUMBER(5)
SUB                                    CHAR(20)

SQL> desc manage;
Name                                     Null?   Type
-----
SID                                     NUMBER(5)
AID                                     NUMBER(5)

SQL>
```

## PLICKER CARD IMPLEMENTATION DBMS ASSIGNMENT

Run SQL Command Line

ERROR:  
ORA-04043: object crct\_ans does not exist

SQL> desc crct\_answer;

Name	Null?	Type
SID		NUMBER(5)
NO		NUMBER(5)

SQL> desc taught;

Name	Null?	Type
SID		NUMBER(5)
TID		NUMBER(5)
SUB		CHAR(20)

SQL> desc manage;

Name	Null?	Type
SID		NUMBER(5)
AID		NUMBER(5)

SQL> desc given ques;

Name	Null?	Type
SID		NUMBER(5)
NO		NUMBER(5)

## ***DML COMMANDS***

## PLICKER CARD IMPLEMENTATION

### DBMS ASSIGNMENT

```
Run SQL Command Line
SQL> insert into studentd values(&sid,&sname,&class,&score,&remarks');
Enter value for sid: 2
Enter value for sname: arjun
Enter value for class: 9
Enter value for score: 9
Enter value for remarks: excellent
old 1: insert into studentd values(&sid,&sname,&class,&score,&remarks')
new 1: insert into studentd values(2,'arjun',9,9,'excellent')

1 row created.

SQL> select * from studentd;

   SID SNAME      CLASS      SCORE REMARK
-----
    1  renu         7          1    good
    2  arjun        9          9    excellent

SQL> /

   SID SNAME      CLASS      SCORE REMARK
-----
    1  renu         7          1    good
    2  arjun        9          9    excellent

SQL> insert into studentd values(&sid,&sname,&class,&score,&remarks');
Enter value for sid: 3
Enter value for sname: gowtham
Enter value for class: 9
Enter value for score: 8
Enter value for remarks: can do better
old 1: insert into studentd values(&sid,&sname,&class,&score,&remarks')
new 1: insert into studentd values(3,'gowtham',9,8,'can do better')

1 row created.

SQL> /
Enter value for sid: 4
Enter value for sname: nikhil
Enter value for class: 9
Enter value for score: 10
Enter value for remarks: hard working
```

```
Run SQL Command Line
```

```
SQL> /  
Enter value for no: 4  
Enter value for ques: everyone in class(needs/need) to study  
Enter value for marks: 2  
old 1: insert into question values(&no,&ques,&marks)  
new 1: insert into question values(4,'everyone in class(needs/need) to study',2)  
  
1 row created.  
  
SQL> /  
Enter value for no: 5  
Enter value for ques: each of thw winners (receives/receive) a scholorship and a trophy  
Enter value for marks: 2  
old 1: insert into question values(&no,&ques,&marks)  
new 1: insert into question values(5,'each of thw winners (receives/receive) a scholarship and a trophy',2)  
  
1 row created.  
  
SQL> /  
Enter value for no: 6  
Enter value for ques: gcd of 56 and 32  
Enter value for marks: 1  
old 1: insert into question values(&no,&ques,&marks)  
new 1: insert into question values(6,'gcd of 56 and 32',1)  
  
1 row created.  
  
SQL> select * from question;  
  
      NO  
-----  
QUES  
-----  
      MARKS  
-----  
          1  
formula for kinetic energy
```

Type here to search

3:35 PM  
2/9/2020

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## PLICKER CARD IMPLEMENTATION DBMS ASSIGNMENT

```
Run SQL Command Line

-----
NO
-----
QUES
-----
MARKS
-----

NO
-----
QUES
-----
MARKS
-----
4
-----
2
the number of zeros of  $x^2+4x+2$ 

NO
-----
QUES
-----
MARKS
-----
```

```
Run SQL Command Line

-----
QUES
-----
MARKS
-----

1
-----

6 rows selected.

SQL> INSERT INTO ANSWER VALUES(&ANSID,&opt1,&opt2,&opt3,&opt4);
Enter value for ansid: 1
Enter value for opt1: mv^2
Enter value for opt2: mv
Enter value for opt3: mv^3
Enter value for opt4: 1/2mv^2
old 1: INSERT INTO ANSWER VALUES(&ANSID,&opt1,&opt2,&opt3,&opt4)
new 1: INSERT INTO ANSWER VALUES(1,'mv^2','mv','mv^3','1/2mv^2')
INSERT INTO ANSWER VALUES(1,'mv^2','mv','mv^3','1/2mv^2')
ERROR at line 1:
ORA-01722: invalid number

SQL> desc answer;
Name                               Null?    Type
-----
OPT1                                CHAR(20)
OPT2                                CHAR(20)
OPT3                                CHAR(20)
OPT4                                CHAR(20)
ANSID                                NOT NULL NUMBER(5)

SQL> INSERT INTO ANSWER VALUES(&ANSID,&opt1,&opt2,&opt3,&opt4);
Enter value for ansid: mv^2
Enter value for opt1: desc answer;
Enter value for opt2:
Enter value for opt3:
Enter value for opt4:
old 1: INSERT INTO ANSWER VALUES(&ANSID,&opt1,&opt2,&opt3,&opt4)
new 1: INSERT INTO ANSWER VALUES(mv^2,'desc answer;',',',',',',')
```

## PLICKER CARD IMPLEMENTATION DBMS ASSIGNMENT

```
Run SQL Command Line
1 row created.

SQL> /
Enter value for opt1: receives
Enter value for opt2: received
Enter value for opt3: null
Enter value for opt4: any thing is fine
Enter value for ansid: 5
old 1: INSERT INTO ANSWER VALUES('&opt1','&opt2','&opt3','&opt4','&ansid)
new 1: INSERT INTO ANSWER VALUES('receives','received','null','any thing is fine',5)

1 row created.

SQL> /
Enter value for opt1: 2
Enter value for opt2: 4
Enter value for opt3: 6
Enter value for opt4: 7
Enter value for ansid: 6
old 1: INSERT INTO ANSWER VALUES('&opt1','&opt2','&opt3','&opt4','&ansid)
new 1: INSERT INTO ANSWER VALUES('2','4','6','7',6)

1 row created.

SQL> select * from answer;

OPT1      OPT2      OPT3
-----
OPT4      ANSID
-----
m          v          mv
mv^2      1
2          1          7
5          2          4
1          2          3
5          3

OPT1      OPT2      OPT3
-----
OPT4      ANSID
-----
```

```
Select Run SQL Command Line
1 row created.

SQL> select * from given_ques;

SID      NO
-----
1         1
1         2
1         3
1         4
1         5

SQL> select * from given_ques;

SID      NO
-----
1         1
1         2
1         3
1         4
1         5

SQL> insert into given_ques values(&sid,&tid);
Enter value for sid: 2
Enter value for tid: 1
old 1: insert into given_ques values(&sid,&tid)
new 1: insert into given_ques values(2,1)

1 row created.

SQL> /
Enter value for sid: 2
Enter value for tid: 2
old 1: insert into given_ques values(&sid,&tid)
new 1: insert into given_ques values(2,2)

1 row created.

SQL> /
Enter value for sid: 2
Enter value for tid: 3
old 1: insert into given_ques values(&sid,&tid)
new 1: insert into given_ques values(2,3)
```



## PLICKER CARD IMPLEMENTATION DBMS ASSIGNMENT

```
Run SQL Command Line
SQL> /
Enter value for sid: 2
Enter value for tid: 4
Enter value for sub: physics
old 1: insert into taught values(&sid,&tid,&sub')
new 1: insert into taught values(2,4,'physics')

1 row created.

SQL> /
Enter value for sid: 3
Enter value for tid: 1
Enter value for sub: english
old 1: insert into taught values(&sid,&tid,&sub')
new 1: insert into taught values(3,1,'english')

1 row created.

SQL> /
Enter value for sid: 4
Enter value for tid: 4
Enter value for sub: maths
old 1: insert into taught values(&sid,&tid,&sub')
new 1: insert into taught values(4,4,'maths')

1 row created.

SQL> select * from taught;

  SID      TID SUB
-----
    1         1 english
    1         3 physics
    2         4 physics
    3         1 english
    4         4 maths

SQL>
```

## ***IMPLEMENTATION***

### ***FRONT END PROGRAMS:***

### ***INSERT STUDENT DETAILS:***

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

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

```
import java.sql.*;
```

```
public class InsertStudent extends Panel
```

```
{
```

```
    Button insertStudentButton;
```

```
    TextField sidText, snameText, classText, scoreText,remarkText;
```

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PLICKER CARD IMPLEMENTATION  
DBMS ASSIGNMENT

```
        TextArea errorText;

        Connection connection;

        Statement statement;

        public InsertStudent()
        {
            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","system","oracle");

                statement = connection.createStatement();
            }
            catch (SQLException connectException)
            {

```

PLICKER CARD IMPLEMENTATION  
DBMS ASSIGNMENT

```
        System.out.println(connectException.getMessage());

        System.out.println(connectException.getSQLState());

        System.out.println(connectException.getErrorCode());

        System.exit(1);

    }

}

public void buildGUI()

{

    //Handle Insert Account Button

    insertStudentButton = new Button("Insert Student");

    insertStudentButton.addActionListener(new ActionListener()

    {

        public void actionPerformed(ActionEvent e)

        {

            try

            {

                Statement statement = connection.createStatement();

                //String query = "INSERT INTO sailors (SID,SNAME, RATING, AGE)

VALUES (2,'Divya',7,20)";

                String query= "INSERT INTO studentd VALUES(" + sidText.getText() +

", " + "" + snameText.getText() + "," + classText.getText() + "," + scoreText.getText() + "," +

remarkText.getText() + "" + ")";

                int i = statement.executeUpdate(query);

                errorText.append("\nInserted " + i + " rows successfully");

            }

            catch (SQLException insertException)
```

PLICKER CARD IMPLEMENTATION  
DBMS ASSIGNMENT

```
        {
            displaySQLExceptions(insertException);
        }
    }

});

sidText = new TextField(15);

snameText = new TextField(15);

classText = new TextField(15);

scoreText = new TextField(15);

remarkText = new TextField(15);


errorText = new TextArea(10, 4);

errorText.setEditable(false);


Panel first = new Panel();

first.setLayout(new GridLayout(5, 1));

first.add(new Label("Student ID:"));

first.add(sidText);

first.add(new Label("Name:"));

first.add(snameText);

first.add(new Label("Class:"));

first.add(classText);

first.add(new Label("Score:"));

first.add(scoreText);

first.add(new Label("Remark:"));
```

PLICKER CARD IMPLEMENTATION  
DBMS ASSIGNMENT

```
        first.add(remarkText);

        first.setBounds(125,90,200,100);

        Panel second = new Panel(new GridLayout(4, 1));

        second.add(insertStudentButton);

        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);

        setSize(500, 600);

        setVisible(true);
    }

    private void displaySQLExceptions(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)
```

PLICKER CARD IMPLEMENTATION  
DBMS ASSIGNMENT

```
{  
  
    InsertStudent std = new InsertStudent();  
  
    std.buildGUI();  
  
}  
  
}
```

### ***MODIFY STUDENT DETAILS:***

```
import java.awt.*;  
  
import java.awt.event.*;  
  
import java.sql.*;  
  
public class UpdateStudent extends Panel  
{  
  
    Button updateStudentButton;  
  
    List studentIDList;  
  
    TextField sidText, snameText, scoreText, remarkText, classText;  
  
    TextArea errorText;  
  
    Connection connection;  
  
    Statement statement;  
  
    ResultSet rs;  
  
  
    public UpdateStudent()  
    {  
  
        try  
        {  
  
            Class.forName("oracle.jdbc.driver.OracleDriver");
```

PLICKER CARD IMPLEMENTATION  
DBMS ASSIGNMENT

```
        }  
        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","system","oracle");  
        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 loadStudent()  
    {  
        try  
        {  
            rs = statement.executeQuery("SELECT * FROM studentd");
```

PLICKER CARD IMPLEMENTATION  
DBMS ASSIGNMENT

```
        while (rs.next())
        {
            studentIDList.add(rs.getString("SID"));
        }
    }
    catch (SQLException e)
    {
        displaySQLErrors(e);
    }
}

public void buildGUI()
{
    studentIDList = new List(6);

    loadStudent();

    add(studentIDList);

    //When a list item is selected populate the text fields
    studentIDList.addItemListener(new ItemListener()
    {
        public void itemStateChanged(ItemEvent e)
        {
            try
            {
                rs = statement.executeQuery("SELECT * FROM studentd");
                while (rs.next())
                {
                    if
(rs.getString("SID").equals(studentIDList.getSelectedItem()))
```



PLICKER CARD IMPLEMENTATION  
DBMS ASSIGNMENT

```
                break;
            }
            if (!rs.isAfterLast())
            {
                sidText.setText(rs.getString("SID"));
                snameText.setText(rs.getString("SNAME"));
                classText.setText(rs.getString("CLASS"));
                scoreText.setText(rs.getString("SCORE"));
                remarkText.setText(rs.getString("REMARK"));
            }
        }
        catch (SQLException selectException)
        {
            displaySQLErrors(selectException);
        }
    }

});

//Handle Update Sailor Button
updateStudentButton = new Button("Update Student");
updateStudentButton.addActionListener(new ActionListener()
{
    public void actionPerformed(ActionEvent e)
    {
        try
        {
            Statement statement = connection.createStatement();
```

PLICKER CARD IMPLEMENTATION  
DBMS ASSIGNMENT

```
int i = statement.executeUpdate("UPDATE studentd "
+ "SET sname=" + snameText.getText() + ", "
+ "class=" + classText.getText() + ", "
+ "remark=" + remarkText.getText() + ", "
+ "score=" + scoreText.getText() + " WHERE sid = "
+ studentIDList.getSelectedItem());

errorText.append("\nUpdated " + i + " rows successfully");

studentIDList.removeAll();

loadStudent();

}

catch (SQLException insertException)

{

    displaySQLErrors(insertException);

}

}

});
```

```
sidText = new TextField(15);

sidText.setEditable(false);

snameText = new TextField(15);

classText = new TextField(15);

scoreText = new TextField(15);

remarkText = new TextField(15);

errorText = new TextArea(10, 40);

errorText.setEditable(false);

Panel first = new Panel();
```

PLICKER CARD IMPLEMENTATION  
DBMS ASSIGNMENT

```
        first.setLayout(new GridLayout(5, 1));

        first.add(new Label("Student ID:"));

        first.add(sidText);

        first.add(new Label("Name :"));

        first.add(snameText);

        first.add(new Label("class :"));

        first.add(classText);

        first.add(new Label("Score :"));

        first.add(scoreText);

        first.add(new Label("Remark :"));

        first.add(remarkText);

        Panel second = new Panel(new GridLayout(4, 1));

        second.add(updateStudentButton);

        Panel third = new Panel();

        third.add(errorText);

        add(first);

        add(second);

        add(third);

        setSize(500, 600);

        setLayout(new FlowLayout());

        setVisible(true);

    }

    private void displaySQLExceptions(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)
    {
        UpdateStudent ups = new UpdateStudent();
        ups.buildGUI();
    }
}
```

### ***DELETE STUDENT DETAILS :***

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

public class DeleteStudent extends Panel
{
    Button deleteStudentButton;

    List studentIDList;

    TextField sidText, snameText, scoreText, remarkText, classText;

    TextArea errorText;

    Connection connection;

    Statement statement;

    ResultSet rs;

    public DeleteStudent()
    {
        try
        {
```

PLICKER CARD IMPLEMENTATION  
DBMS ASSIGNMENT

```
        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","system","oracle");
        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 loadStudent()
```

PLICKER CARD IMPLEMENTATION  
DBMS ASSIGNMENT

```
{
    try
    {
        rs = statement.executeQuery("SELECT * FROM studentd");
        while (rs.next())
        {
            studentIDList.add(rs.getString("SID"));
        }
    }
    catch (SQLException e)
    {
        displaySQLErrors(e);
    }
}

public void buildGUI()
{
    studentIDList = new List(10);
    loadStudent();
    add(studentIDList);

    //When a list item is selected populate the text fields
    studentIDList.addItemListener(new ItemListener()
    {
        public void itemStateChanged(ItemEvent e)
        {
            try
```

PLICKER CARD IMPLEMENTATION  
DBMS ASSIGNMENT

```
        {  
            rs = statement.executeQuery("SELECT * FROM studentd");  
            while (rs.next())  
            {  
                if  
(rs.getString("SID").equals(studentIDList.getSelectedItem()))  
                {  
                    break;  
                }  
            }  
            if (!rs.isAfterLast())  
            {  
                sidText.setText(rs.getString("SID"));  
                snameText.setText(rs.getString("SNAME"));  
                scoreText.setText(rs.getString("SCORE"));  
                remarkText.setText(rs.getString("REMARK"));  
                classText.setText(rs.getString("CLASS"));  
            }  
        }  
        catch (SQLException selectException)  
        {  
            displaySQLErrors(selectException);  
        }  
    }  
});
```

//Handle Delete Sailor Button

deleteStudentButton = new Button("Delete Student");

PLICKER CARD IMPLEMENTATION  
DBMS ASSIGNMENT

```
deleteStudentButton.addActionListener(new ActionListener()
{
    public void actionPerformed(ActionEvent e)
    {
        try
        {
            Statement statement = connection.createStatement();
            int i = statement.executeUpdate("DELETE FROM studentd
WHERE SID = "
+ studentIDList.getSelectedItem());
            errorText.append("\nDeleted " + i + " rows successfully");
            sidText.setText(null);
            snameText.setText(null);
            scoreText.setText(null);
            remarkText.setText(null);
            studentIDList.removeAll();
            loadStudent();
        }
        catch (SQLException insertException)
        {
            displaySQLErrors(insertException);
        }
    }
});

sidText = new TextField(15);
snameText = new TextField(15);
scoreText = new TextField(15);
```



PLICKER CARD IMPLEMENTATION  
DBMS ASSIGNMENT

```
remarkText = new TextField(15);  
classText = new TextField(15);  
  
errorText = new TextArea(10, 40);  
errorText.setEditable(false);  
  
Panel first = new Panel();  
first.setLayout(new GridLayout(5, 1));  
first.add(new Label("Student ID:"));  
first.add(sidText);  
first.add(new Label("Name:"));  
first.add(snameText);  
first.add(new Label("Score:"));  
first.add(scoreText);  
first.add(new Label("Remarks:"));  
first.add(remarkText);  
first.add(new Label("Class:"));  
first.add(classText);  
  
Panel second = new Panel(new GridLayout(4, 1));  
second.add(deleteStudentButton);  
  
Panel third = new Panel();  
third.add(errorText);  
  
add(first);
```

PLICKER CARD IMPLEMENTATION  
DBMS ASSIGNMENT

```
        add(second);

        add(third);


        setSize(450, 600);

        setLayout(new FlowLayout());

        setVisible(true);

    }


    private void displaySQLExceptions(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)
    {

        DeleteStudent dels = new DeleteStudent();

        dels.buildGUI();

    }

}
```

## ***MAIN PROGRAM:***

***import java.awt.\*;***

***import java.awt.event.\*;***

*class plickerCard extends Frame implements ActionListener*

*{*

*String msg = "";*

*Label ll;*

*CardLayout cardLO;*

*//Create Panels for each of the menu items, welcome screen panel and home screen panel with CardLayout*

*InsertStudent is;*

*UpdateStudent ups;*

*DeleteStudent dels;*

*InsertInstructor ii;*

*UpdateInstructor ui;*

*DeleteInstructor deli;*

*taught tb;*

*UpdateTaught upt;*

*DeleteTaught delt;*

*Manage\_By mb;*

*UpdateManage upm;*

*DeleteManage delm;*

*InsertAdmin ia;*

*UpdateAdmin upa;*

*DeleteAdmin dela;*

*InsertQuestion iq;*

*UpdateQuestion upq;*

*DeleteQuestion delq;*

*InsertAnswer ian;*

*UpdateAnswer upan;*

PLICKER CARD IMPLEMENTATION  
DBMS ASSIGNMENT

```
DeleteAnswer delan;  
crct_answer ca;  
UpdateCrctAnswer upansid;  
DeleteCrctAns delca;  
given_ques gq;  
UpdateGiven upg;  
DeleteGivenQues delgq;  
  
Panel home,welcome;  
  
pickerCard()  
{  
  
    cardLO = new CardLayout();  
  
    //Create an empty home panel and set its layout to card layout  
  
    home = new Panel();  
  
    home.setLayout(cardLO);  
  
    ll = new Label();  
  
    ll.setAlignment(Label.CENTER);  
  
    ll.setText("Welcome to PLICKER CARD");  
  
    //Create welcome panel and add the label to it  
  
    welcome = new Panel();  
  
    welcome.add(ll);  
  
  
    //create panels for each of our menu items and build them with  
    respective components  
  
    is = new InsertStudent(); is.buildGUI();  
  
    ups = new UpdateStudent(); ups.buildGUI();  
  
    dels = new DeleteStudent(); dels.buildGUI();  
  
    ui = new UpdateInstructor();    ui.buildGUI();
```

```
ii=new InsertInstructor(); ii.buildGUI();  
deli=new DeleteInstructor(); deli.buildGUI();  
tb=new taught(); tb.buildGUI();  
upt=new UpdateTaught(); upt.buildGUI();  
ia=new InsertAdmin(); ia.buildGUI();  
upa=new UpdateAdmin(); upa.buildGUI();  
dela=new DeleteAdmin(); dela.buildGUI();  
iq=new InsertQuestion(); iq.buildGUI();  
upq=new UpdateQuestion(); upq.buildGUI();  
delq=new DeleteQuestion(); delq.buildGUI();  
ian=new InsertAnswer(); ian.buildGUI();  
upan=new UpdateAnswer(); upan.buildGUI();  
delan=new DeleteAnswer(); delan.buildGUI();  
ca=new crct_answer(); ca.buildGUI();  
upansid=new UpdateCrctAnswer(); upansid.buildGUI();  
delca=new DeleteCrctAns(); delca.buildGUI();  
gq=new given_ques(); gq.buildGUI();  
upg=new UpdateGiven(); upg.buildGUI();  
delgq=new DeleteGivenQues(); delgq.buildGUI();  
mb=new Manage_By(); mb.buildGUI();  
upm=new UpdateManage(); upm.buildGUI();  
delm=new DeleteManage(); delm.buildGUI();  
delt=new DeleteTaught(); delt.buildGUI();  
  
//add all the panels to the home panel which has a cardlayout  
home.add(welcome, "Welcome");  
home.add(is, "InsertStudent");
```

```
home.add(ups, "UpdateStudent");  
home.add(dels, "DeleteStudent");  
home.add(ii, "InsertInstructor");  
home.add(ui, "UpdateInstructor");  
home.add(deli, "DeleteInstructor");  
home.add(ia, "InsertAdmin");  
home.add(upa, "UpdateAdmin");  
home.add(dela, "DeleteAdmin");  
home.add(iq, "InsertQuestion");  
home.add(upq, "UpdateQuestion");  
home.add(delq, "DeleteQuestion");  
home.add(ian, "InsertAnswer");  
home.add(upan, "UpdateAnswer");  
home.add(delan, "DeleteAnswer");  
home.add(tb, "taught");  
home.add(upt, "UpdateTaught");  
home.add(ca, "crct_answer");  
home.add(upansid, "UpdateCrctAnswer");  
home.add(gq, "given_ques");  
home.add(upg, "UpdateGiven");  
home.add(mb, "Manage_By");  
home.add(upm, "UpdateManage");  
home.add(delM, "DeleteManage");  
home.add(delt, "DeleteTaught");  
home.add(delca, "DeleteCrctAns");  
home.add(delgq, "DeleteGivenQues");
```

```
// add home panel to main frame

add(home);

// create menu bar and add it to frame

MenuBar mbar = new MenuBar();

setMenuBar(mbar);

// create the menu items and add it to Menu

Menu Student = new Menu("Student Details");

MenuItem item1, item2, item3;

Student.add(item1 = new MenuItem("Submit Student Details"));

Student.add(item2 = new MenuItem("Modify Student details"));

Student.add(item3 = new MenuItem("Delete Student Details"));

mbar.add(Student);

Menu Instructor = new Menu("Instructor Details");

MenuItem item4, item5, item6;

Instructor.add(item4 = new MenuItem("Submit Instructor Details "));

Instructor.add(item5 = new MenuItem("Modify Instructor Details"));

Instructor.add(item6 = new MenuItem("Delete Instructor Details"));

mbar.add(Instructor);

Menu Admin= new Menu("Admin Details");

MenuItem item10, item11, item12;

Admin.add(item10=new MenuItem("Submit Admin Details"));

Admin.add(item11=new MenuItem("Modify Admin Details"));

Admin.add(item12=new MenuItem("Delete Admin Details"));

mbar.add(Admin);

Menu Question=new Menu("Question");
```

```
MenuItem item13,item14, item15;

Question.add(item13=new MenuItem("Insert Question"));

Question.add(item14=new MenuItem("Update Question"));

Question.add(item15=new MenuItem("Delete Question"));

mbar.add(Question);

Menu Answer = new Menu("Answer");

MenuItem item16, item17, item18;

Answer.add(item16= new MenuItem("Insert Answer"));

Answer.add(item17= new MenuItem("Update Answer"));

Answer.add(item18 = new MenuItem("Delete Answer"));

mbar.add(Answer);

Menu taught = new Menu("taught_By");

MenuItem item7, item8, item9;

taught.add(item7 = new MenuItem("Add Teacher Student pair"));

taught.add(item8 = new MenuItem("Update combinations"));

taught.add(item9 = new MenuItem("Delete a pair"));

mbar.add(taught);

Menu crct_ans = new Menu("crct_answer");

MenuItem item19, item20, item21;

crct_ans.add(item19 = new MenuItem("Add crct_answer"));

crct_ans.add(item20 = new MenuItem("Update crct_answer"));

crct_ans.add(item21 = new MenuItem("Delete crct_answer"));

mbar.add(crct_ans );

Menu given_ques = new Menu("given_question");

MenuItem item22, item23, item24;

given_ques.add(item22 = new MenuItem("Add given_ques"));
```



```
given_ques.add(item23 = new MenuItem("Update given_ques"));
given_ques.add(item24 = new MenuItem("Delete given_ques"));
mbar.add(given_ques );

Menu Manage_By = new Menu("Manage_By");
MenuItem item25, item26, item27;
Manage_By .add(item25 = new MenuItem("Add Admin Student
pair"));

Manage_By .add(item26 = new MenuItem("Update pair"));
Manage_By .add(item27 = new MenuItem("Delete pair"));
mbar.add(Manage_By );

// 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);
item11.addActionListener(this);
item12.addActionListener(this);
item13.addActionListener(this);
item14.addActionListener(this);
item15.addActionListener(this);
item16.addActionListener(this);
```

```
item17.addActionListener(this);
item18.addActionListener(this);
item19.addActionListener(this);
item20.addActionListener(this);
item21.addActionListener(this);
item22.addActionListener(this);
item23.addActionListener(this);
item24.addActionListener(this);
item25.addActionListener(this);
item26.addActionListener(this);
item27.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("PLICKER CARD");
Color clr = new Color(200, 100, 150);
setBackground(clr);
setFont(new Font("SansSerif", Font.BOLD, 14));
setSize(500, 600);
setVisible(true);
```

```
}

public void actionPerformed(ActionEvent ae)
{
    String arg = ae.getActionCommand();
    if(arg.equals("Submit Student Details"))
    {
        cardLO.show(home, "InsertStudent");
    }

    else if(arg.equals("Modify Student details"))
    {
        cardLO.show(home, "UpdateStudent");
    }

    else if(arg.equals("Delete Student Details"))
    {
        cardLO.show(home, "DeleteStudent");
    }

    else if(arg.equals("Submit Instructor Details"))
    {
        cardLO.show(home, "InsertInstructor");
    }

    else if(arg.equals("Modify Instructor Details"))
```

PLICKER CARD IMPLEMENTATION  
DBMS ASSIGNMENT

```
{  
    cardLO.show(home, "UpdateInstructor");  
}  
else if(arg.equals("Delete Instructor Details"))  
{  
    cardLO.show(home, "DeleteInstructor");  
}  
else if(arg.equals("Submit Admin Details"))  
{  
    cardLO.show(home, "InsertAdmin");  
}  
  
else if(arg.equals("Update Admin Details"))  
{  
    cardLO.show(home, "UpdateAdmin");  
}  
else if(arg.equals("Delete Admin Details"))  
{  
    cardLO.show(home, "DeleteAdmin");  
}  
else if(arg.equals("Insert Question"))  
{  
    cardLO.show(home, "InsertQuestion");  
}  
  
else if(arg.equals("Update Question"))
```

PLICKER CARD IMPLEMENTATION  
DBMS ASSIGNMENT

```
{  
    cardLO.show(home, "UpdateQuestion");  
}  
else if(arg.equals("Delete Question"))  
{  
    cardLO.show(home, "DeleteQuestion");  
}  
else if(arg.equals("Insert Answer"))  
{  
    cardLO.show(home, "InsertAnswer");  
}  
else if(arg.equals("Update Answer"))  
{  
    cardLO.show(home, "UpdateAnswer");  
}  
else if(arg.equals("Delete Answer"))  
{  
    cardLO.show(home, "DeleteAnswer");  
}  
else if(arg.equals("Add crct_answer"))  
{  
    cardLO.show(home, "crct_answer");  
}  
else if(arg.equals("Update crct_answer"))  
{  
    cardLO.show(home, "UpdateCrctAnswer");  
}
```

PLICKER CARD IMPLEMENTATION  
DBMS ASSIGNMENT

```
    }  
    else if(arg.equals("Delete crct_answer"))  
    {  
        cardLO.show(home,"DeleteCrctAns");  
    }  
    else if(arg.equals("Add given_ques"))  
    {  
        cardLO.show(home,"given_ques");  
    }  
    else if(arg.equals("Update given_ques"))  
    {  
        cardLO.show(home,"UpdateGiven");  
    }  
    else if(arg.equals("Delete given_ques"))  
    {  
        cardLO.show(home,"DeleteGivenQues");  
    }  
  
    else if(arg.equals("Update Answer"))  
    {  
        cardLO.show(home,"UpdateAnswer");  
    }  
    else if(arg.equals("Delete Answer"))  
    {  
        cardLO.show(home,"DeleteAnswer");
```

```
}

    else if(arg.equals("Add Teacher Student pair"))
    {
        cardLO.show(home, "taught");
    }
    else if(arg.equals("View combinations"))
    {
        cardLO.show(home, "UpdateTaught");
    }
    else if(arg.equals("Delete a pair"))
    {
        cardLO.show(home, "DeleteTaught");
    }

    else if(arg.equals("Add Admin Student pair"))
    {
        cardLO.show(home, "Manage_By");
    }
    else if(arg.equals("Update pair"))
    {
        cardLO.show(home, "UpdateManage");
    }
    else if(arg.equals("Delete pair"))
    {
        cardLO.show(home, "DeleteManage");
    }
```

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

## **CONNECTIVITY WITH DATABASE:**

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:thin:@localhost:15  
21:orcl","hemanth","oracle");  
  
            statement=connection.createStatement();  
  
        }  
    }
```

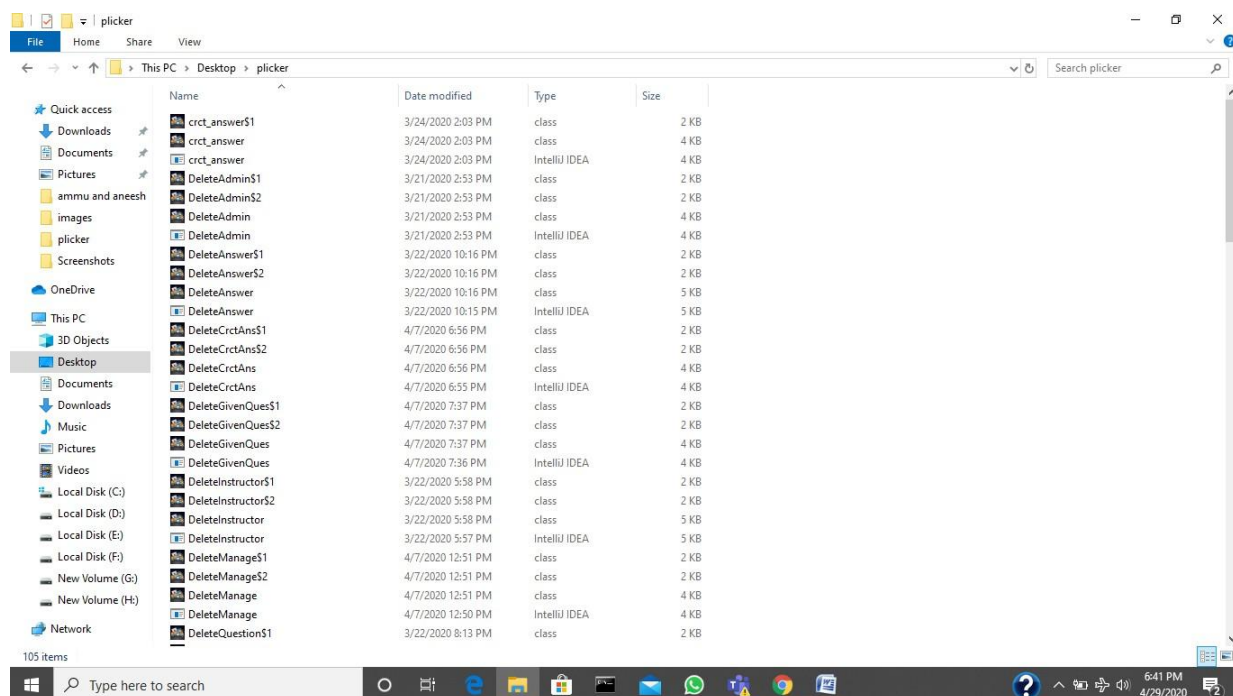


PLICKER CARD IMPLEMENTATION  
DBMS ASSIGNMENT

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

## FOLDER STRUCTURE:

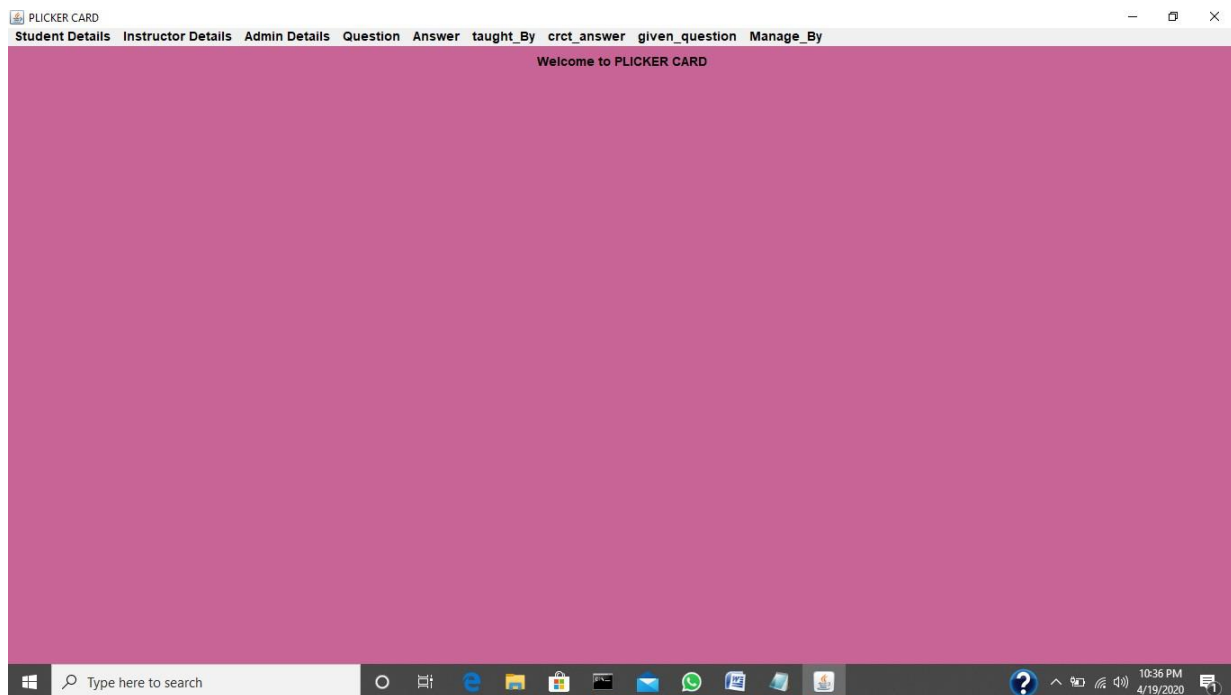
This project is in the folder named plicker in which it has different cases for which data is being inserted or updated or deleted. All the source code for each program is named according to its functionality so that it would be easy to navigate.



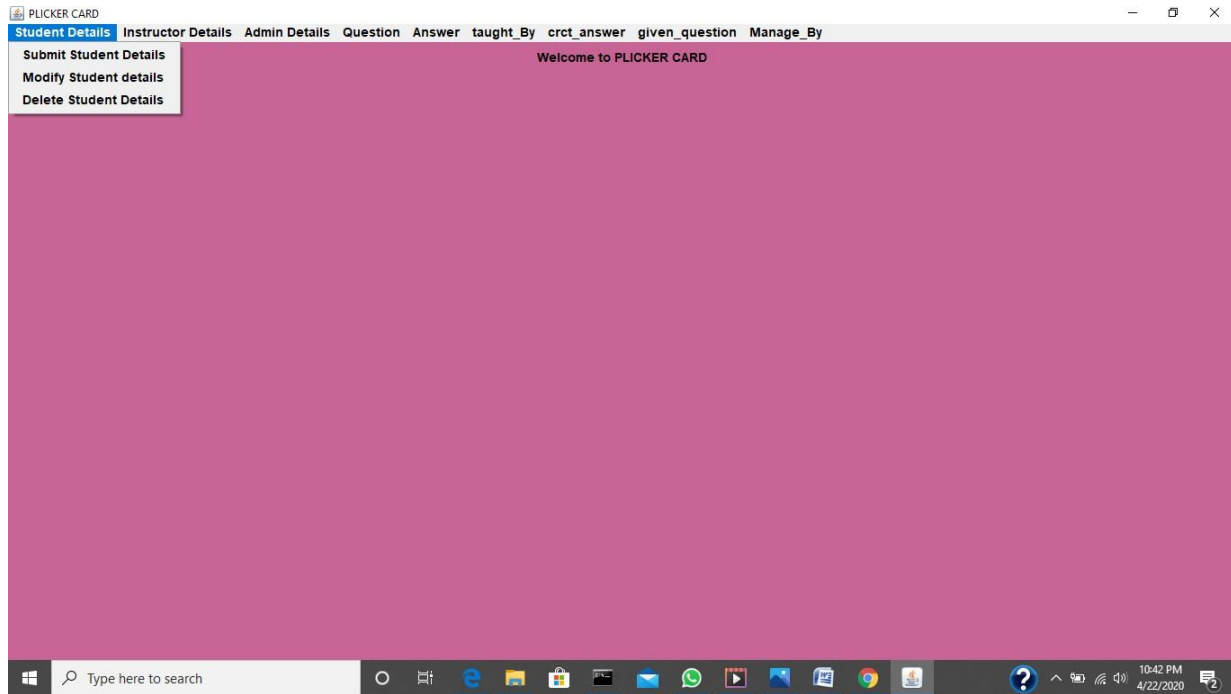
## TESTING

The program runs for execution of three basic operations of insertion, update and delete on 5 different table. Along with this, it also has a output column which gives the information about how many rows have been edited. Errors, syntactical or exceptional will be shown if occurred.

## HOME PAGE:



## PLICKER CARD IMPLEMENTATION DBMS ASSIGNMENT



## SUMISSION OF STUDENT DETAILS: BEFORE

The screenshot displays a web application interface with a navigation bar at the top containing links: Student Details, Instructor Details, Admin Details, Question, Answer, taught\_By, crct\_answer, given\_question, and Manage\_By. The main content area is divided into two sections. The upper section features a 'Run SQL Command Line' window with the following text:

```
SQL*Plus: Release 11.2.0.2.0 Production on Sun Apr 19 22:36:55 2020
Copyright (c) 1982, 2010, Oracle. All rights reserved.

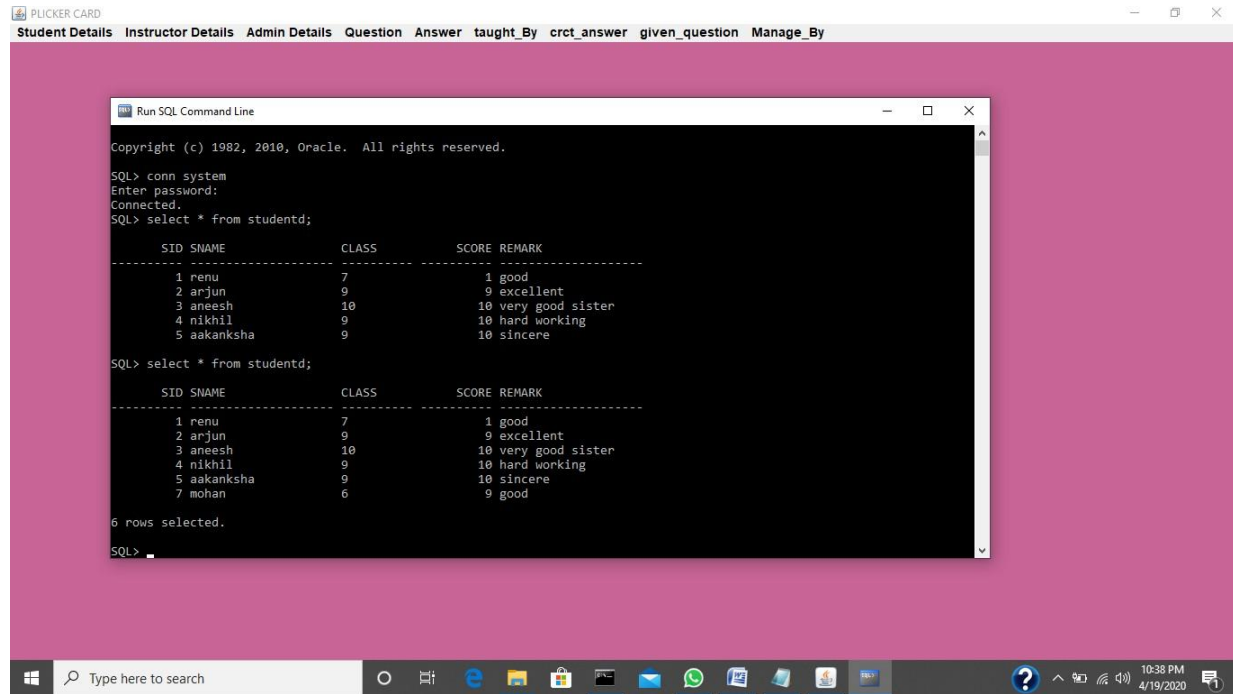
SQL> conn system
Enter password:
Connected.
SQL> select * from studentd;
```

The query results are displayed in a table format:

SID	SNAME	CLASS	SCORE	REMARK
1	renu	7	1	good
2	arjun	9	9	excellent
3	aneesh	10	10	very good sister
4	nikhil	9	10	hard working
5	aakanksha	9	10	sincere

The lower section of the main content area contains a form for adding a new student. The form fields are labeled 'Student ID:', 'Name:', 'Class:', 'Score:', and 'Remark:'. The values entered are 7, mohan, 6, 9, and good, respectively. Below the form is an 'Insert Student' button. A message box below the form states 'Inserted 1 rows successfully'.

## PLICKER CARD IMPLEMENTATION DBMS ASSIGNMENT



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

```
SQL> conn system
Enter password:
Connected.
SQL> select * from studentd;
```

STD	SNAME	CLASS	SCORE	REMARK
1	renu	7	1	good
2	arjun	9	9	excellent
3	aneesh	10	10	very good sister
4	nikhil	9	10	hard working
5	aakanksha	9	10	sincere

```
SQL> select * from studentd;
```

STD	SNAME	CLASS	SCORE	REMARK
1	renu	7	1	good
2	arjun	9	9	excellent
3	aneesh	10	10	very good sister
4	nikhil	9	10	hard working
5	aakanksha	9	10	sincere
7	mohan	6	9	good

6 rows selected.

```
SQL>
```

V.Renu Aakanksha  
1602-18-737-093

PLICKER CARD IMPLEMENTATION  
DBMS ASSIGNMENT

## MODIFICATION OF STUDENT DETAILS:

PLICKER CARD

Student Details Instructor Details Admin Details Question Answer taught\_By crct\_answer given\_question Manage\_By

1  
2  
3  
4  
5  
6  
7

Student ID: 7  
Name : lalith  
class : 6  
Score : 9  
Remark : good

Update Student

Updated 1 rows successfully

Type here to search

PLICKER CARD

Student Details Instructor Details Admin Details Question Answer taught\_By crct\_answer given\_question Manage\_By

1  
2  
3  
4  
5  
6  
7

Student ID: 7

Updated 1 rows successfully

Run SQL Command Line

```
4 nikhil 9 10 hard working
5 aakanksha 9 10 sincere

SQL> select * from studentd;

SID SNAME CLASS SCORE REMARK
-----
1 renu 7 1 good
2 arjun 9 9 excellent
3 aneesh 10 10 very good sister
4 nikhil 9 10 hard working
5 aakanksha 9 10 sincere
7 mohan 6 9 good

6 rows selected.

SQL> select * from studentd;

SID SNAME CLASS SCORE REMARK
-----
1 renu 7 1 good
2 arjun 9 9 excellent
3 aneesh 10 10 very good sister
4 nikhil 9 10 hard working
5 aakanksha 9 10 sincere
7 lalith 6 9 good

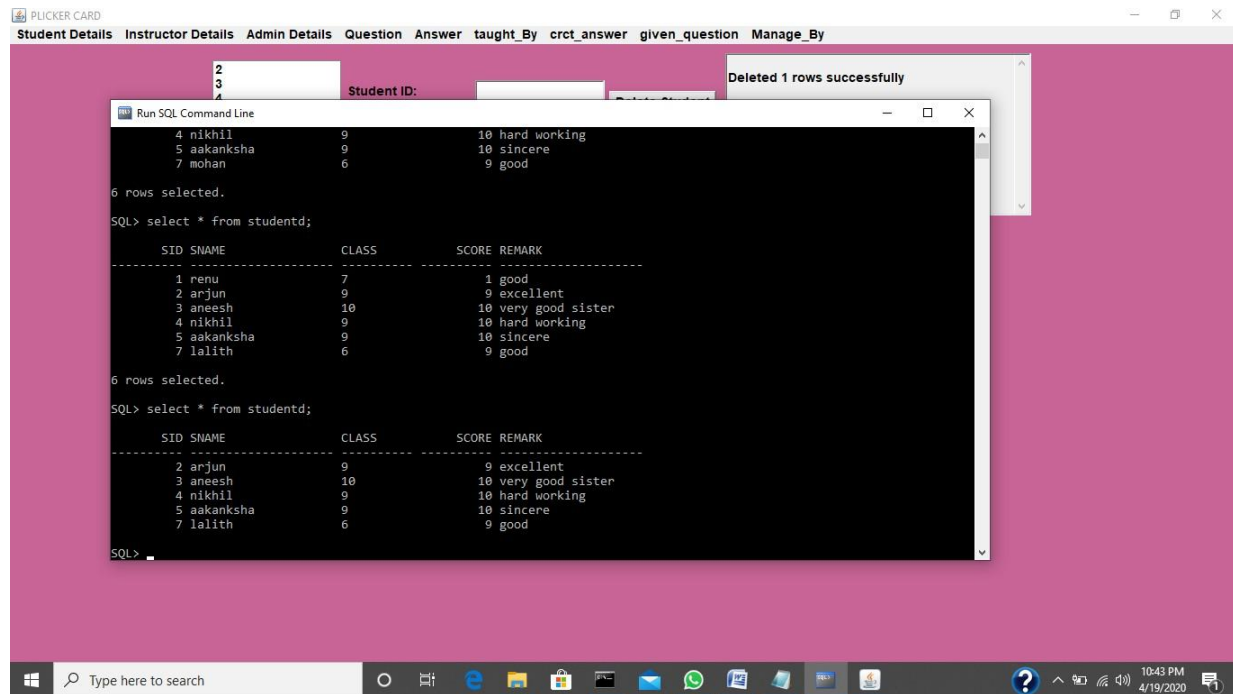
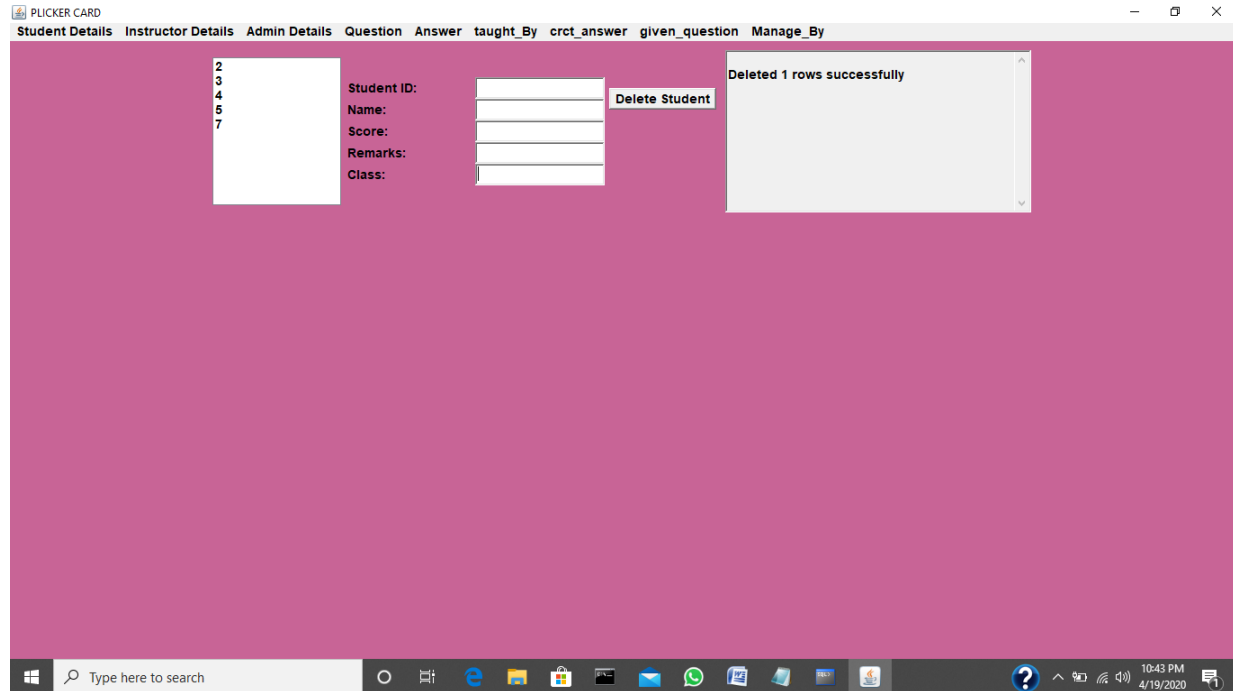
6 rows selected.

SQL>
```

Type here to search

# PLICKER CARD IMPLEMENTATION DBMS ASSIGNMENT

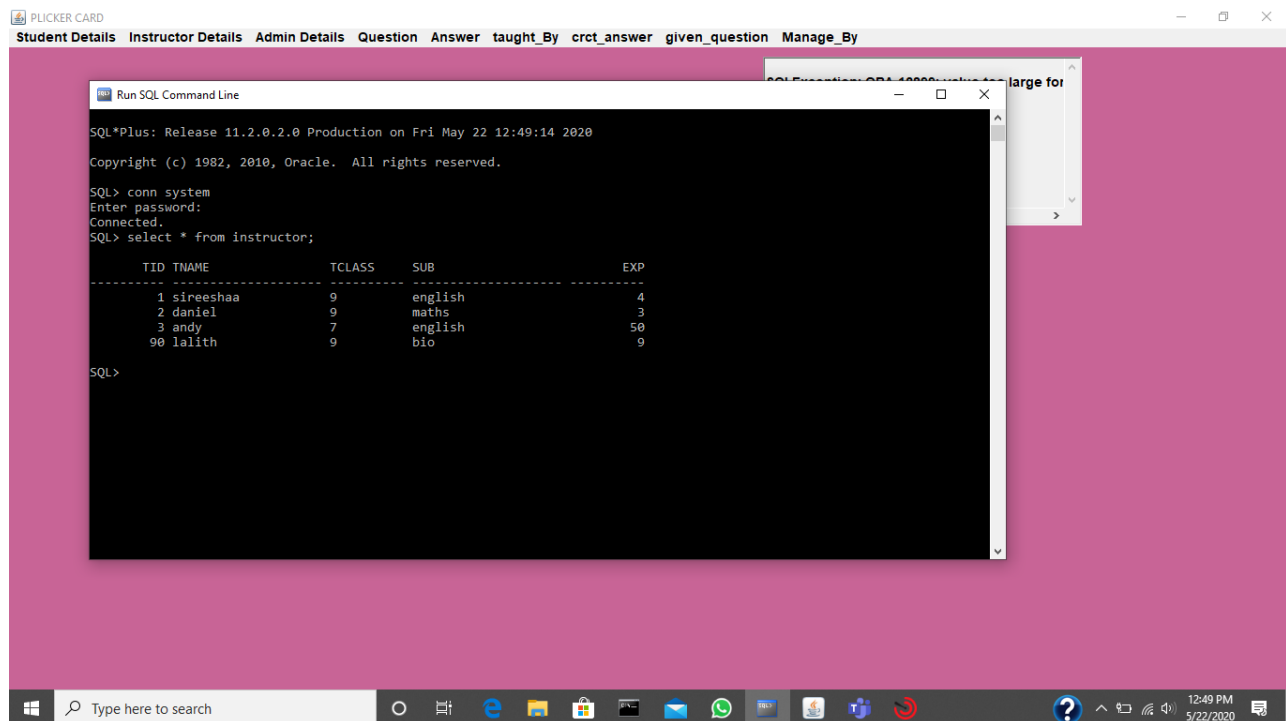
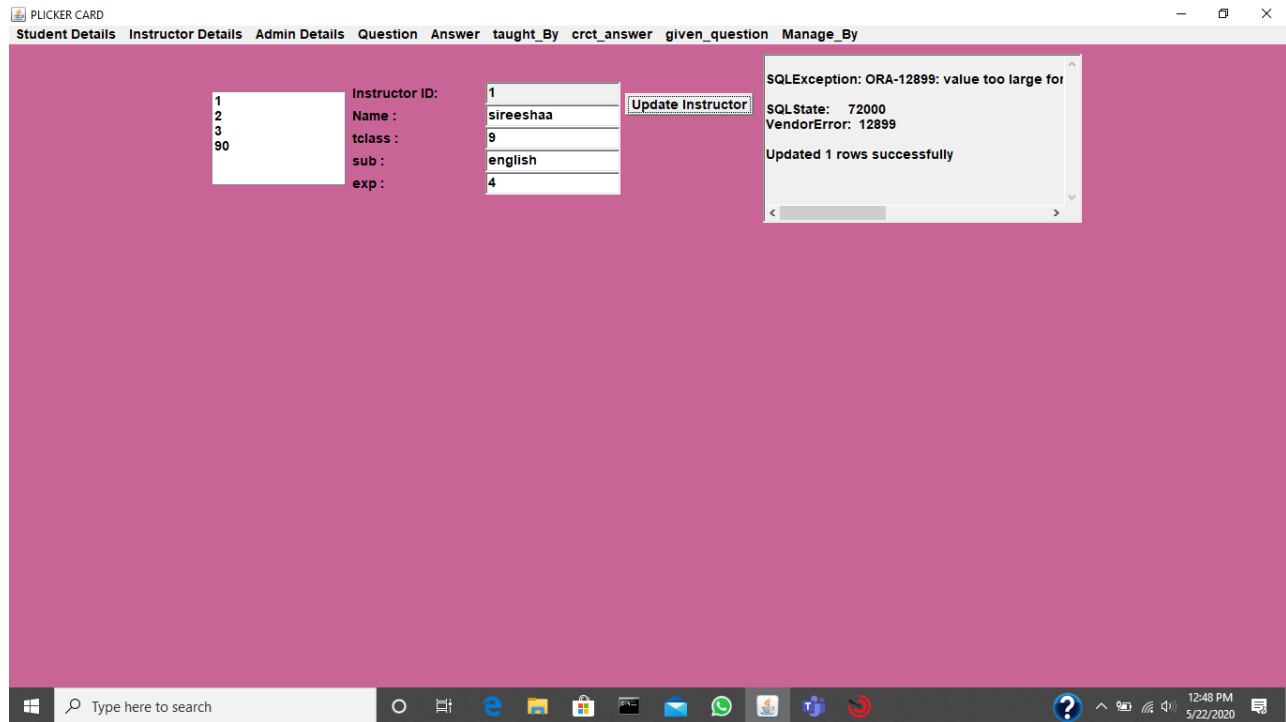
## DELETION OF STUDENT DETAILS:



V.Renu Aakanksha  
1602-18-737-093



## UPDATING INSTRUCTOR DETAILS



# PLICKER CARD IMPLEMENTATION DBMS ASSIGNMENT

## INSERTING ADMIN DETAILS

PLICKER CARD

Student Details Instructor Details Admin Details Question Answer taught\_By crct\_answer given\_question Manage\_By

Admin ID:  
10

Name:  
renu

Insert Admin

Inserted 1 rows successfully

Run SQL Command Line

TID	TNAME	TCLASS	SUB	EXP
1	sireeshaa	9	english	4
2	daniel	9	maths	3
3	andy	7	english	50
90	lalith	9	bio	9

```
SQL> select * from instructor;
```

TID	TNAME	TCLASS	SUB	EXP
1	sireeshaa	9	english	4
2	daniel	9	maths	3
90	lalith	9	bio	9

```
SQL> select * from admin;
```

AID	ANAME
101	daniel
102	richard
103	hendryy
104	sam
12	renu
105	ichard
10	renu

7 rows selected.

```
SQL>
```

V.Renu Aakanksha  
1602-18-737-093

## DELETING ADMIN DETAILS

PLICKER CARD

Student Details Instructor Details Admin Details Question Answer taught\_By crct\_answer given\_question Manage\_By

Admin ID:  Admin Name:

Deleted 1 rows successfully

101  
102  
103  
104  
105  
10

Run SQL Command Line

```
SQL> select * from admin;

AID ANAME
-----
101 daniel
102 richard
103 hendryy
104 sam
12 renu
105 ichard
10 renu

7 rows selected.

SQL> select * from admin;

AID ANAME
-----
101 daniel
102 richard
103 hendryy
104 sam
105 ichard
10 renu

6 rows selected.

SQL>
```

PLICKER CARD IMPLEMENTATION  
DBMS ASSIGNMENT

## INSERTING A QUESTION

The image shows a web application window titled "PLICKER CARD" with a pink background. The navigation bar includes links: Student Details, Instructor Details, Admin Details, Question, Answer, taught\_By, crct\_answer, given\_question, and Manage\_By. The "Question" tab is active. On the left, there is a form with the following fields:

- Question no: 9
- Question: how old are u?
- Marks: 4

Below the form is a button labeled "Insert Question".

A white error message box is displayed in the center of the page with the following text:

```
SQLException: ORA-00001: unique constraint  
PLState: 23000  
VendorError: 1  
Inserted 1 rows successfully
```

Below the web application window is a Windows taskbar and a "Run SQL Command Line" window. The command prompt shows the following text:

```
everyone in class(needs/need) to study  
  
-----  
NO  
-----  
QUES  
-----  
MARKS  
-----  
  
2  
NO  
-----  
QUES  
-----  
MARKS  
-----  
9  
how old are u?  
  
-----  
NO  
-----  
QUES  
-----  
MARKS  
-----
```

# PLICKER CARD IMPLEMENTATION DBMS ASSIGNMENT

## UPDATING A QUESTION

PLICKER CARD

Student Details Instructor Details Admin Details Question Answer taught\_By crct\_answer given\_question Manage\_By

1  
2  
3  
4  
5  
6

Question ID: 7  
Question : lethelargica  
marks: 5

Update Question

Updated 1 rows successfully

```
Run SQL Command Line
-----
QUES
-----
MARKS
-----
1
7
what is the meaning of lethelargica
NO
-----
QUES
-----
MARKS
-----
NO
-----
QUES
-----
MARKS
-----
5
7 rows selected.
SQL>
```

PLICKER CARD IMPLEMENTATION  
DBMS ASSIGNMENT

## DELETING A QUESTION

PLICKER CARD

Student Details Instructor Details Admin Details Question Answer taught\_By crt\_answer given\_question Manage\_By

1  
2  
3  
4  
5  
6

Question no:   
Question:   
Marks:

Delete Question

Deleted 1 rows successfully

```
Run SQL Command Line
-----
NO
-----
QUES
-----
MARKS
-----
4
6
gcd of 56 and 32
-----
NO
-----
QUES
-----
MARKS
-----
1
6 rows selected.
SQL>
```

# PLICKER CARD IMPLEMENTATION DBMS ASSIGNMENT

## INSERTING ANSWERS

PLICKER CARD

Student Details Instructor Details Admin Details Question Answer taught\_By crtct\_answer given\_question Manage\_By

Answer ID:   
Option 1:   
Option 2:   
Option 3:   
Option 4:

Inserted 1 rows successfully

```
Run SQL Command Line
-----
QUES
-----
MARKS
-----

NO
-----
QUES
-----
MARKS
-----

1

6 rows selected.
SQL> select * from answer;
-----
OPT1      OPT2      OPT3
-----
OPT4      ANSID
-----
10         1         4         2
34
2          mv        .5
3         6
7         6         9         7
8
SQL>
```

V.Renu Aakanksha  
1602-18-737-093

# PLICKER CARD IMPLEMENTATION

## DBMS ASSIGNMENT

### UPDATING ANSWERS

PLICKER CARD

Student Details Instructor Details Admin Details Question Answer taught\_By crct\_answer given\_question Manage\_By

4  
6  
9

Answer ID:  
option 1 :  
option 2 :  
option 3 :  
option 4 :

6  
2  
3  
mv  
.5

Update Answer

Updated 1 rows successfully

Run SQL Command Line

MARKS

1

6 rows selected.

SQL> select \* from answer;

OPT1	OPT2	OPT3
10	1	2
34	4	
2	mv	.5
3	6	
7	6	7
8	9	

SQL> select \* from answer;

OPT1	OPT2	OPT3
10	1	2
34	4	
2	mv	.5
3	6	
7	6	7
8	9	

SQL>



# PLICKER CARD IMPLEMENTATION DBMS ASSIGNMENT

## DELETING ANSWERS

PLICKER CARD

Student Details Instructor Details Admin Details Question Answer taught\_By crt\_answer given\_question Manage\_By

4  
9

Answer ID:

OPTION 1:

OPTION 2:

OPTION 3:

OPTION 4:

Delete Answer

Deleted 1 rows successfully

Run SQL Command Line

```
SQL> select * from answer;
```

OPT1	OPT2	ANSID	OPT3
10	1	4	2
34			
2	mv	6	.5
3			
7	6	9	7
8			

```
SQL> select * from answer;
```

OPT1	OPT2	ANSID	OPT3
10	1	4	2
34			
2	mv	6	.5
3			
7	6	9	7
8			

```
SQL>
```

PLICKER CARD IMPLEMENTATION  
DBMS ASSIGNMENT

## INSERTING A STUDENT TEACHER COMBINATION

PLICKER CARD

Student Details Instructor Details Admin Details Question Answer taught\_By crct\_answer given\_question Manage\_By

Student ID: 7  
Instructor ID: 1  
Subject: biology

taught

Inserted 1 rows successfully

Run SQL Command Line

ERROR at line 1:  
ORA-00942: table or view does not exist

SQL> select \* from taught;

SID	TID	SUB
4	2	english
7	1	biology

SQL>

## PLICKER CARD IMPLEMENTATION

### DBMS ASSIGNMENT

# DELETING A STUDENT TEACHER COMBINATION

The screenshot displays a web application interface for managing student-teacher combinations. The application has a navigation bar with tabs: Student Details, Instructor Details, Admin Details, Question, Answer, taught\_By, crct\_answer, given\_question, and Manage\_By. The 'taught\_By' tab is active. The main content area is a large pink rectangle. On the left, there is a form with a text input field containing the number '7'. To the right of this field are two input fields labeled 'Student ID:' and 'Instructor ID:'. A 'Delete taught' button is positioned to the right of these fields. A message box on the right side of the form states 'Deleted 1 rows successfully'.

Below the web application, a 'Run SQL Command Line' window is open, showing the following SQL commands and their results:

```
ERROR at line 1:
ORA-00942: table or view does not exist

SQL> select * from taught;

  SID      TID SUB
-----
  4         2 english
  7         1 biology

SQL> select * from taught;

  SID      TID SUB
-----
  7         1 biology

SQL>
```

## INSERTING CORRECT ANSWER TO A QUESTION

PLICKER CARD

Student Details Instructor Details Admin Details Question Answer taught\_By crct\_answer given\_question Manage\_By

ANSWER ID: 4  
QUESTION ID: 6

CORRECT ANSWER

Inserted 1 rows successfully

Type here to search

Run SQL Command Line

```
SQL> select * from crct_answer;
```

NO	ANSID
6	4

```
SQL>
```

Type here to search

# PLICKER CARD IMPLEMENTATION

## DBMS ASSIGNMENT

PLICKER CARD

Student Details Instructor Details Admin Details Question Answer taught\_By crct\_answer given\_question Manage\_By

ANSWER ID: 9  
QUESTION ID: 9

CORRECT ANSWER

Inserted 1 rows successfully  
Inserted 1 rows successfully  
Inserted 1 rows successfully  
Inserted 1 rows successfully  
Inserted 1 rows successfully

```
Run SQL Command Line

SQL> select * from crct_answer;

  NO    ANSID
-----
     6      4

SQL> select * from crct_answer;

  NO    ANSID
-----
     6      4
     3      9
     1      9
     2      9
     9      9

6 rows selected.

SQL>
```

PLICKER CARD IMPLEMENTATION  
DBMS ASSIGNMENT

## UPDATING CORRECT ANSWER PAIR

PLICKER CARD

Student Details Instructor Details Admin Details Question Answer taught\_By crct\_answer given\_question Manage\_By

6  
3  
1  
2  
9

ques no:  
1

Name:  
9

Update crct\_answer

Updated 1 rows successfully

Run SQL Command Line

```
SQL> select * from crct_answer;
```

NO	ANSID
6	4
3	9
1	9
2	9
9	9

6 rows selected.

```
SQL> select * from crct_answer;
```

NO	ANSID
6	4
3	9
1	9
2	9
9	9

6 rows selected.

```
SQL> select * from crct_answer;
```

NO	ANSID
6	9
3	9
1	9
2	9
9	9

6 rows selected.

```
SQL>
```

PLICKER CARD IMPLEMENTATION  
DBMS ASSIGNMENT

## DELETING CORRECT ANSWER

The screenshot displays a web application interface for managing questions and answers. The application has a navigation bar with the following tabs: Student Details, Instructor Details, Admin Details, Question, Answer, taught\_By, crct\_answer, given\_question, and Manage\_By. The 'crct\_answer' tab is currently selected.

On the left side of the application, there is a list of question numbers: 6, 1, 2, and 9. In the center, there are input fields for 'Question no:' and 'Correct Answer:', along with a 'Delete crct\_answer' button. A message box on the right states 'Deleted 1 rows successfully'.

Below the application window, a 'Run SQL Command Line' window is open, showing the execution of SQL queries to verify the deletion. The queries and their results are as follows:

```
SQL> select * from crct_answer;
```

NO	ANSID
6	4
3	9
1	9
2	9
9	9

6 rows selected.

```
SQL> select * from crct_answer;
```

NO	ANSID
6	9
3	9
1	9
2	9
9	9

6 rows selected.

```
SQL> select * from crct_answer;
```

NO	ANSID
6	9
1	9
2	9
9	9

SQL>

PLICKER CARD IMPLEMENTATION  
DBMS ASSIGNMENT

## ***INSERTING DETAILS OF QUESTION GIVEN TO A STUDENT***

PLICKER CARD

Student Details Instructor Details Admin Details Question Answer taught\_By crct\_answer given\_question Manage\_By

Student ID:

Question ID:

Inserted 1 rows successfully

Type here to search

Run SQL Command Line

SP2-0734: unknown command beginning "seelct \* f..." - rest of line ignored.

SQL> select \* from given\_ques;

SID	NO
2	4

SQL> select \* from given\_ques;

SID	NO
2	4
2	2
2	1
2	9
2	6

SQL>

Type here to search



# PLICKER CARD IMPLEMENTATION DBMS ASSIGNMENT

## UPDATING GIVEN QUESTION DETAILS

The screenshot displays a web application interface for updating question details. The application has a navigation bar with the following tabs: Student Details, Instructor Details, Admin Details, Question, Answer, taught\_By, crct\_answer, given\_question, and Manage\_By. The 'given\_question' tab is currently selected.

In the center of the page, there is a form with the following fields:

- A list of question numbers: 4, 2, 1, 9, 6.
- A text input field labeled 'ques no:' with the value '9'.
- A text input field labeled 'Student ID:' with the value '2'.
- A button labeled 'Update given ques'.

On the right side of the page, there is a message box showing the following details:

- SQLState: 23000
- VendorError: 2291
- SQLException: ORA-02291: integrity constrain
- SQLState: 23000
- VendorError: 2291
- Updated 1 rows successfully

Below the web application, a terminal window titled 'Run SQL Command Line' is open. It shows the following SQL commands and their output:

```
SP2-0734: unknown command beginning "seelct * f..." - rest of line ignored.
SQL> select * from given ques;

  SID      NO
-----
    2         4

SQL> select * from given ques;

  SID      NO
-----
    2         4
    2         2
    2         1
    2         9
    2         6

SQL> select * from given ques;

  SID      NO
-----
    2         4
    2         2
    2         1
    2         9
    2         6

SQL>
```

PLICKER CARD IMPLEMENTATION  
DBMS ASSIGNMENT

## DELETING GIVEN QUESTION DETAILS

PLICKER CARD

Student Details Instructor Details Admin Details Question Answer taught\_By crt\_answer given\_question Manage\_By

4  
2  
9  
6

Question no:

Answer :

Delete given\_ques

Deleted 1 rows successfully

Type here to search

1:16 PM  
5/22/2020

Run SQL Command Line

```
SP2-0734: unknown command beginning "seelct * f..." - rest of line ignored.  
SQL> select * from given_ques;  
  
SID      NO  
-----  
2        4  
  
SQL> select * from given_ques;  
  
SID      NO  
-----  
2        4  
2        2  
2        1  
2        9  
2        6  
  
SQL> select * from given_ques;  
  
SID      NO  
-----  
2        4  
2        2  
2        1  
2        9  
2        6  
  
SQL> select * from given_ques;  
  
SID      NO  
-----  
2        4  
2        2  
2        9  
2        6  
  
SQL>
```

Type here to search

1:16 PM  
5/22/2020

PLICKER CARD IMPLEMENTATION  
DBMS ASSIGNMENT

## INSERTING ADMIN STUDENT PAIR

The screenshot shows a web application window titled "PLICKER CARD" with a navigation bar containing the following tabs: Student Details, Instructor Details, Admin Details, Question, Answer, taught\_By, crt\_answer, given\_question, and Manage\_By. The "Admin Details" tab is active. It displays a form with "Student ID:" set to 2 and "Admin ID:" set to 103. A "Manage\_By" button is visible. A message box in the top right corner states "Inserted 1 rows successfully".

Below the web application is a "Run SQL Command Line" window. It contains the following SQL queries and their results:

```
SQL> select * from given_ques;
```

SID	NO
2	4
2	2
2	1
2	9
2	6

```
SQL> select * from manage_by1
```

SID	NO
2	4
2	2
2	9
2	6

```
SQL> select * from manage_by1
```

ERROR at line 1:  
ORA-00942: table or view does not exist

```
SQL> select * from manage_by;
```

ERROR at line 1:  
ORA-00942: table or view does not exist

```
SQL> select * from manage;
```

SID	AID
5	101
2	103
5	103
2	104
2	10

## UPDATING ADMIN STUDENT COMBINATION DETAILS

The screenshot shows a web application interface for updating student details. The application has a menu bar with options: Student Details, Instructor Details, Admin Details, Question, Answer, taught\_By, crct\_answer, given\_question, and Manage\_By. The Admin Details section is active, displaying a list of student IDs (101, 103, 103, 104, 10) and a form to update the manage ID and student ID. The manage ID is set to 101 and the student ID is set to 2. An 'Update manage' button is visible. A message box on the right indicates a successful update: 'Updated 2 rows successfully' and 'Updated 1 rows successfully'. Below the application, a SQL command line window shows the execution of SQL queries. The first query, 'select \* from manage\_by;', results in an error: 'ORA-00942: table or view does not exist'. The second query, 'select \* from manage;', returns a table with columns SID and AID, showing data for students 101, 103, 103, 104, and 10. The third query, 'select \* from manage;', returns a table with columns SID and AID, showing data for students 101, 103, 103, 104, and 10.

Student Details Instructor Details Admin Details Question Answer taught\_By crct\_answer given\_question Manage\_By

101  
103  
103  
104  
10

manage ID: 101  
Student ID: 2

Update manage

VendorError: 2291  
SQLException: ORA-02291: integrity constrain  
SQLState: 23000  
VendorError: 2291  
Updated 2 rows successfully  
Updated 1 rows successfully

Run SQL Command Line

```
ORA-00942: table or view does not exist

SQL> select * from manage_by;
select * from manage_by
*
ERROR at line 1:
ORA-00942: table or view does not exist

SQL> select * from manage;

  SID      AID
  -----
  5         101
  2         103
  5         103
  2         104
  2         10

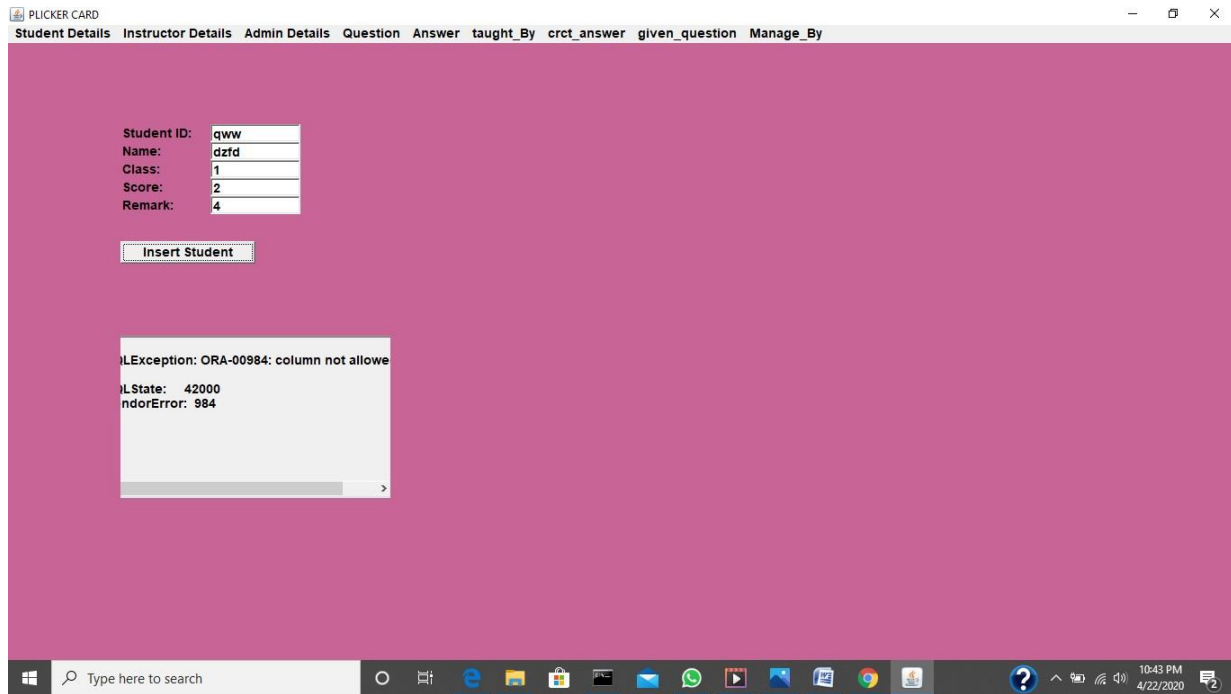
SQL> select * from manage;

  SID      AID
  -----
  2         101
  2         103
  2         103
  2         104
  2         10

SQL>
```

# PLICKER CARD IMPLEMENTATION DBMS ASSIGNMENT

## ***ERRORS:***



## PLICKER CARD IMPLEMENTATION DBMS ASSIGNMENT

PLICKER CARD

Student Details Instructor Details Admin Details Question Answer taught\_By crct\_answer given\_question Manage\_By

2	Student ID:	5	Update Student
3	Name :	aakanksha	
4	class :	xfg	
5	Score :	10	
7	Remark :	sincere	

10:43 PM 4/22/2020

PLICKER CARD

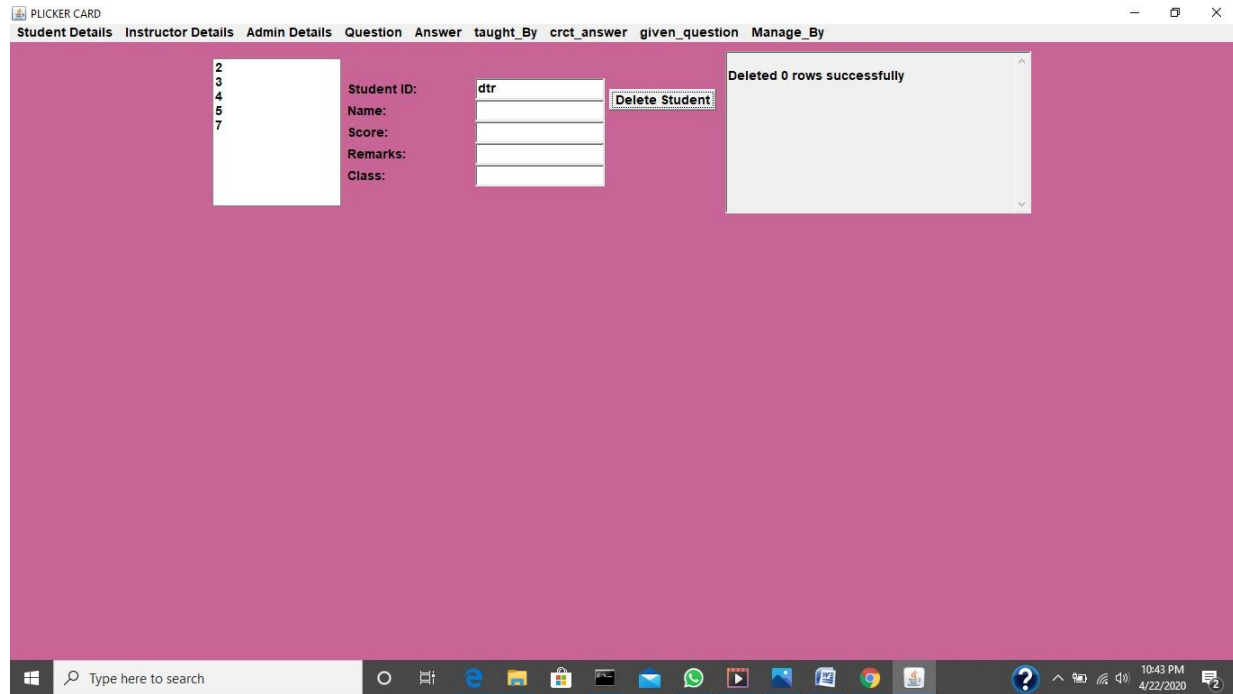
Student Details Instructor Details Admin Details Question Answer taught\_By crct\_answer given\_question Manage\_By

2	Student ID:	5	Update Student
3	Name :	aakanksha	
4	class :	xfg	
5	Score :	10	
7	Remark :	sincere	

SQLException: ORA-00904: "XFG": invalid identifier  
SQLState: 42000  
VendorError: 904

10:43 PM 4/22/2020

## PLICKER CARD IMPLEMENTATION DBMS ASSIGNMENT



**GITHUB LINK:** <https://github.com/r0614/pilcker-Card-Implementation>

## RESULTS

The DML commands, Insert, update and delete for one of the tables in given below:

For student table: (in java, as per the application)

**FOR INSERT:** "INSERT INTO studentd VALUES(" + sidText.getText() + ", " + "" + snameText.getText() + ", " + classText.getText() + ", " + scoreText.getText() + ", " + remarkText.getText() + "" + ")";

**FOR UPDATE:** UPDATE studentd "

```
+ "SET sname=" + snameText.getText() + ", "  
+ "class=" + classText.getText() + ", "  
+ "remark=" + remarkText.getText() + ", "  
+ "score=" + scoreText.getText() + " WHERE sid = "  
+ studentIDList.getSelectedItemId());
```

**FOR DELETE:** "DELETE FROM studentd WHERE SID = "

```
+ studentIDList.getSelectedItemId());
```

## REFERENCES

1. <http://sociallearningcommunity.com/10-of-the-best-mooc-providers/>
2. [https://en.wikipedia.org/wiki/List\\_of\\_MOOC\\_providers](https://en.wikipedia.org/wiki/List_of_MOOC_providers)
3. GIT HUB LINK: <https://github.com/r0614/pilcker-Card-Implementation>
4. GIT HUB LINK OF ASSIGNMENT 1:  
<https://github.com/r0614/PLICKER-CARD-IMPLEMENTATION-UPDATED>