



Java Institute for Advanced Technology

UNIT NAME= SOFTWARE APPLICATION DEVELOPMENT

UNIT ID= H7E1 04

ASSIGNMENT ID= H7E1 04/AS/02

NAME=IMETH WEERASINGHE

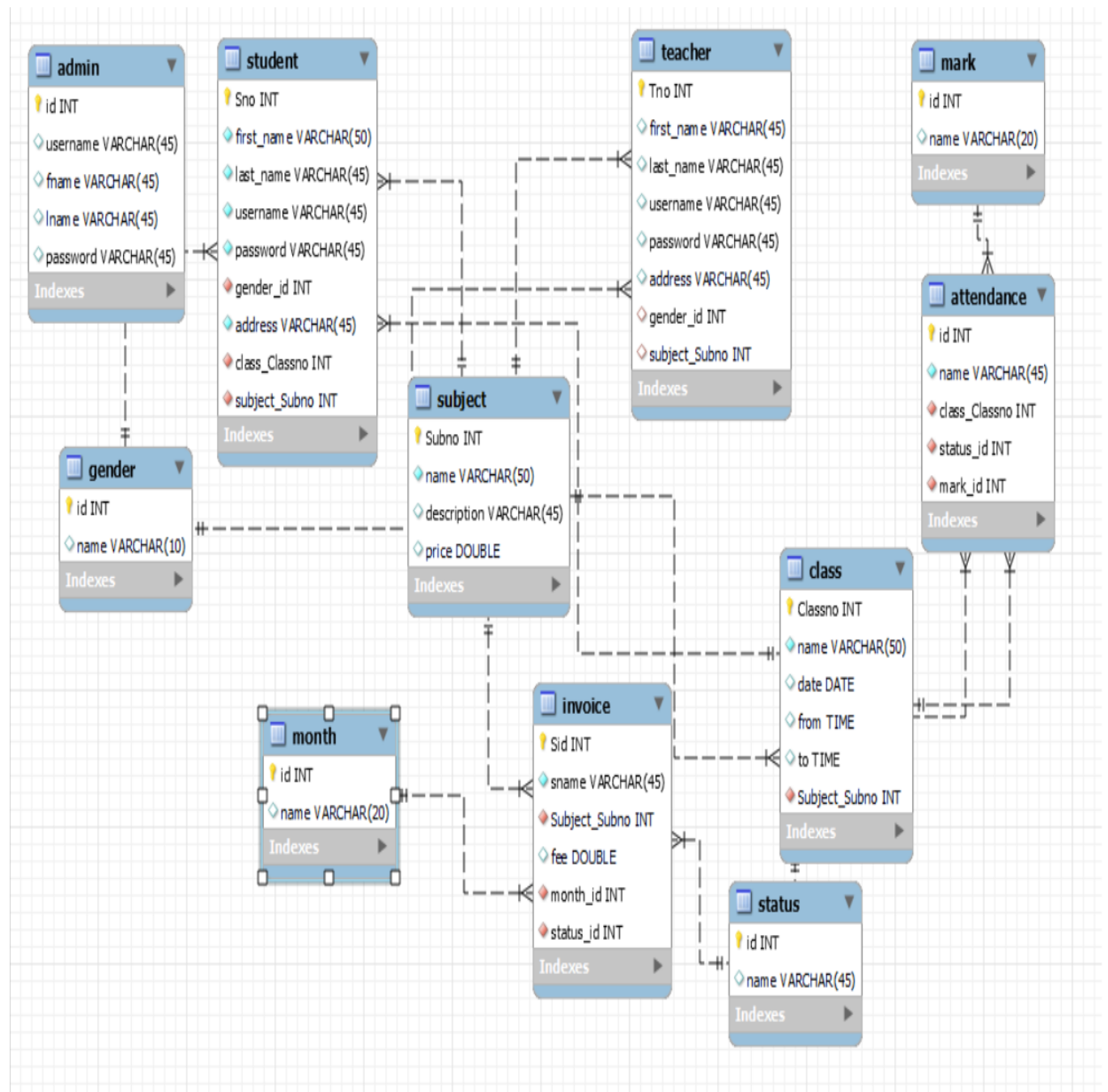
SCN NO

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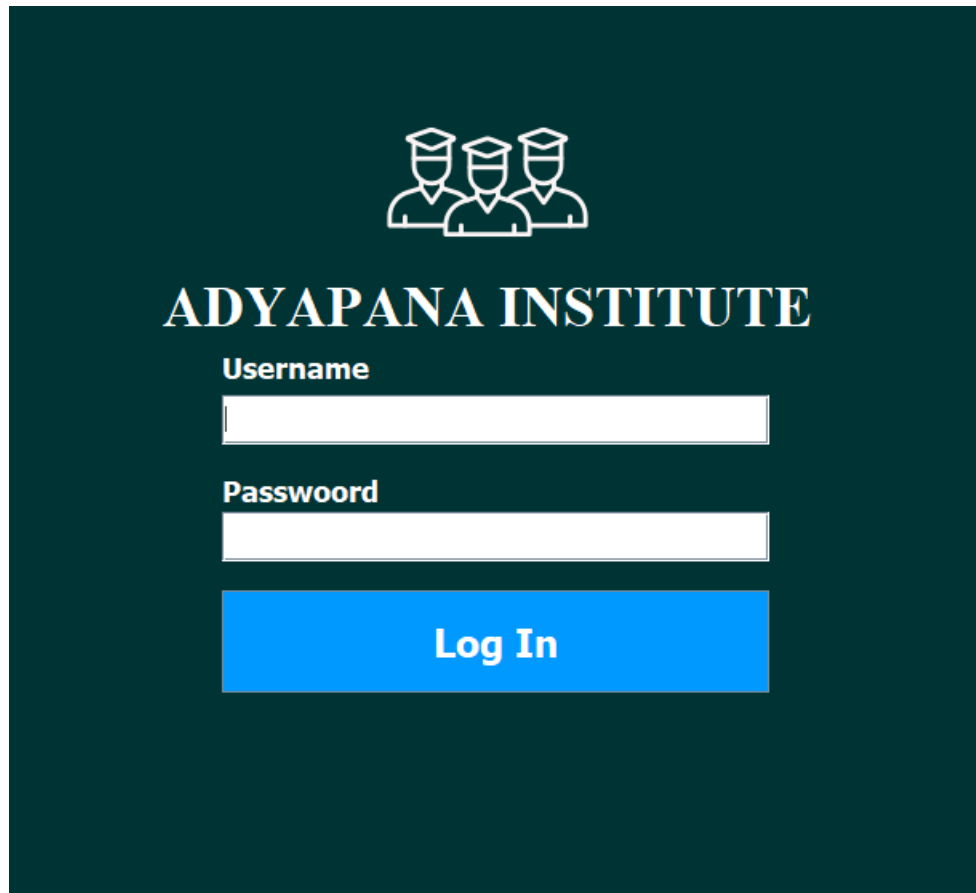
BRANCH=colomb0



ER Diagram



Sign In



The image shows a login form for Adyapana Institute. At the top, there is a logo consisting of three graduation caps. Below the logo, the text "ADYAPANA INSTITUTE" is displayed in a large, bold, serif font. Underneath the institute name, there are two input fields: one for "Username" and one for "Password". Both fields are empty and have a light gray border. Below the password field is a blue button with the text "Log In" in white, bold, sans-serif font. The entire form is set against a dark teal background.

```
String username = jTextField1.getText();
String password = String.valueOf(jPasswordField1.getPassword());

if (username.isEmpty()) {
    JOptionPane.showMessageDialog(this, "Please enter your username", "Warning",
JOptionPane.WARNING_MESSAGE);
} else if (password.isEmpty()) {
    JOptionPane.showMessageDialog(this, "please enter your password", "Warning",
JOptionPane.WARNING_MESSAGE);
} else {
    try {
        ResultSet resultSet = MySQL.execute("SELECT * FROM `admin` WHERE `username` = '" +
username + "' AND `password`='" + password + "'");
        if (resultSet.next()) {

            HashMap<String, String> map = new HashMap<>();
            map.put("fname", resultSet.getString("fname"));
            map.put("lname", resultSet.getString("lname"));

            Home home = new Home(map);
            home.setVisible(true);
            this.dispose();
        }
    } catch (SQLException e) {
        e.printStackTrace();
    }
}
```

```

    } else {
        JOptionPane.showMessageDialog(this, "Invalid Details", "Error",
JOptionPane.ERROR_MESSAGE);
        jTextField1.setText("");
        jPasswordField1.setText("");
    }
    } catch (Exception e) {
        e.printStackTrace();
    }
}
}

private static class jPasswordField1 {


    private static void setText(String string) {
        throw new UnsupportedOperationException("Not supported yet."); //To change body of generated
methods, choose Tools | Templates.
    }

    public jPasswordField1() {
    }
}

```

Menu Main

ADYAPANA



imeth weerasinghe

Dashbord

Students

Teachers

Subjects

Classes

Payments

Attendance

Dashbord

TOTLE STUDENT

10

TOTLE TEACHERS

10

TOTLE SUBJECTS

10

July

2023

	Sun	Mon	Tue	Wed	Thu	Fri	Sat
26							1
27	2	3	4	5	6	7	8
28	9	10	11	12	13	14	15
29	16	17	18	19	20	21	22
30	23	24	25	26	27	28	29
31	30	31					

Student Registration

Student

Search

ID	First Name	Last Name	Username	Address	Password	Gender	Subject	Class
4	imeth	weerasinghe	imeth123	gampaha	123	Male	Commerce	12V

First Name

Last Name

Username

Password

Gender
☐ Male ☐ Female

Address

Class

Select

Subject

Select

ADD STUDENT

UPDATE STUDENT

DELETE STUDENT

Insert

```
String fname = jTextField1.getText();
String lname = jTextField2.getText();
String usrename = jTextField3.getText();
String address = jTextField4.getText();
String password = String.valueOf(jPasswordField1.getPassword());
String subject = String.valueOf(jComboBox2.getSelectedItem());
String clz = String.valueOf(jComboBox1.getSelectedItem());
ButtonModel genderSelect = buttonGroup1.getSelection();

try {
    String gendreid = genderSelect.getActionCommand();
    int subid = SubMap.get(subject);
    int clzid = classMap.get(clz);
    MySQL.execute("INSERT INTO "
        +
        "student(`first_name`,`last_name`,`username`,`password`,`address`,`gender_id`,`subject_Subno`,`class`_Classno`)"
```

```

        + "VALUES('" + fname + "','" + lname + "','" + usrename + "','" + address + "','" + password +
        "','" + gendreid + "','" + subid + "','" + clzid + "')");
        loadstudent();
        reset();
    } catch (Exception e) {
        e.printStackTrace();
    }
}

```

Update

```
int selectedRow = jTable1.getSelectedRow();
```

```
if (selectedRow == -1) {
```

```
    System.out.println("Select Row");
```

```
} else {
```

```
    String id = String.valueOf(jTable1.getValueAt(selectedRow, 0));
```

```
    String fname = jTextField1.getText();
```

```
    String lname = jTextField2.getText();
```

```
    String username = jTextField3.getText();
```

```
    String address = jTextField4.getText();
```

```
    String password = String.valueOf(jPasswordField1.getPassword());
```

```
    String subject = String.valueOf(jComboBox2.getSelectedItem());
```

```
    String clas = String.valueOf(jComboBox1.getSelectedItem());
```

```
    ButtonModel genderSelection = buttonGroup1.getSelection();
```

```
try {
```

```
    String genderId = genderSelection.getActionCommand();
```

```
    int subjectid = SubMap.get(subject);
```

```
    int clasid = classMap.get(clas);
```

```

MySQL.execute("UPDATE `student` SET "
    + "`first_name`='" + fname + "',"
    + "`last_name`='" + lname + "',"
    + "`username`='" + username + "',"
    + "`password`='" + password + "',"
    + "`address`='" + address + "',"
    + "`gender_id`='" + genderId + "',"
    + "`subject_Subno`='" + subjectid + "',"
    + "`class_Classno`='" + clasid + ""
    + "WHERE `Sno`='" + id + """);

loadstudent();

reset();

jTable1.setEnabled(true);

jButton3.setEnabled(true);

} catch (Exception e) {
    e.printStackTrace();
}
}

```

Delete

```

int selectedRow = jTable1.getSelectedRow();

if (selectedRow == -1) {

    System.out.println("Please select row");
}

```

```
} else {
```

```
String id = String.valueOf(jTable1.getValueAt(selectedRow, 0));
```

```
try {
```

```
MySQL.execute("DELETE FROM `student` WHERE `Sno`='" + id + "'");
```

```
loadstudent();
```

```
reset();
```

```
jTable1.setEnabled(true);
```

```
jButton3.setEnabled(true);
```

```
} catch (Exception e) {
```

```
e.printStackTrace();
```

```
}
```

```
}
```

```
String text = jTextField5.getText();
```

```
loadStudent(text);
```


Teacher Registration

Teacher

Search

ID	First Name	Last Name	Username	Address	Password	Gender	Subject
5	lahiru	sankalpa	kahiru12	jafna	123	Male	I.C.T
6	chamathka	imashi	chamathka123	homagama	123	Female	Arts
4	kamal	perera	kamal1	kandy	123	Male	Technology

First Name

Password

Subject

Select ▼

ADD TEACHER

Last Name

Gender

☐ Male ☐ Female

UPDATE TEACHER

Username

Address

DELETE TEACHER

Insert

```
String fname = jTextField1.getText();

String lname = jTextField2.getText();

String username = jTextField3.getText();

String address = jTextField4.getText();

String password = String.valueOf(jPasswordField1.getPassword());

String subject = String.valueOf(jComboBox1.getSelectedItem());

ButtonModel genderSelect = buttonGroup1.getSelection();
```

```

try {

    String gendreid = genderSelect.getActionCommand();

    int subid = SubMap.get(subject);

    MySQL.execute("INSERT INTO "

        + "`teacher`(`first_name`,`last_name`,`username`,`password`,`address`,`gender_id`,`subject_Subno`)"

        + "VALUES('" + fname + "','" + lname + "','" + usrename + "','" + address + "','" + password + "','" +

gendreid + "','" + subid + "')");

    loadteacher();

    reset();

} catch (Exception e) {

    e.printStackTrace();

}

```

Update

```
int selectedRow = jTable1.getSelectedRow();
```

```

if (selectedRow == -1) {

    System.out.println("Select Row");

} else {

    String id = String.valueOf(jTable1.getValueAt(selectedRow, 0));

    String fname = jTextField1.getText();

    String lname = jTextField2.getText();

    String username = jTextField3.getText();

    String address = jTextField4.getText();

    String password = String.valueOf(jPasswordField1.getPassword());

    String subject = String.valueOf(jComboBox1.getSelectedItem());

```

```

ButtonModel genderSelection = buttonGroup1.getSelection();

try {

    String genderId = genderSelection.getActionCommand();

    int subjectid = SubMap.get(subject);

    MySQL.execute("UPDATE `teacher` SET "

        + "`first_name`='" + fname + "',"

        + "`last_name`='" + lname + "',"

        + "`username`='" + username + "',"

        + "`address`='" + address + "',"

        + "`password`='" + password + "',"

        + "`gender_id`='" + genderId + "',"

        + "`subject_Subno`='" + subjectid + "'"

        + "WHERE `Tno`='" + id + "'");

    loadteacher();

    reset();

    jTable1.setEnabled(true);

    jButton3.setEnabled(true);

} catch (Exception e) {

    e.printStackTrace();

}

}

```

Delete

```
int selectedRow = jTable1.getSelectedRow();

if (selectedRow == -1) {

    System.out.println("Please select row");

} else {

    String id = String.valueOf(jTable1.getValueAt(selectedRow, 0));

    try {

        MySQL.execute("DELETE FROM `teacher` WHERE `Tno`='" + id + "'");

        loadteacher();

        reset();

        jTable1.setEnabled(true);

        jButton3.setEnabled(true);

    } catch (Exception e) {

        e.printStackTrace();

    }

}
```

Search

```
String text = jTextField5.getText();

loadteacher(text);
```

Subject Registration

Subject

Search

ID	Name	Description	Price
1	I.C.T	Information and communication technologies	2000.0
2	Arts	Cash is available.	1500.0
3	Commerce	Cash is available.	2000.0
4	Bio Science	Cash is available.	3000.0
5	Physical Science (Maths)	Cash is available.	36000.0
6	Technology	Cash is available	4000.0

ID

Name

Price

Description

ADD SUBJECT

UPDATE SUBJECT

DELETE SUBJECT

Insert

```
String id = jTextField1.getText();
```

```
String name = jTextField2.getText();
```

```
String description = jTextArea1.getText();
```

```
String price = jTextField4.getText();
```

```
try {
```

```
    MySQL.execute("INSERT INTO"
```

```
        + " `subject` (`Subno`,`name`,`description`,`price`) "
```

```

        + "VALUES ('" + id + "','" + name + "','" + description + "','" + price + "')");

loadsubject();

reset();

} catch (Exception e) {

    e.printStackTrace();

}

```

Delete

```
int selectedRow = jTable1.getSelectedRow();
```

```
if (selectedRow == -1) {
```

```
}
```

```
String id = String.valueOf(jTable1.getValueAt(selectedRow, 0));
```

```
try {
```

```
    MySQL.execute("DELETE FROM `subject` WHERE `Subno`='" + id + "'");
```

```
loadsubject();
```

```
reset();
```

```
jTable1.setEnabled(true);
```

```
jButton3.setEnabled(true);
```

```
} catch (Exception e) {  
    e.printStackTrace();  
}
```

Update

```
int selectedRow = jTable1.getSelectedRow();  
  
if (selectedRow == -1) {  
    System.out.println("Select row");  
} else {  
    String id = String.valueOf(jTable1.getValueAt(selectedRow, 0));  
  
    //String id = jTextField1.getText();  
    String name = jTextField2.getText();  
    String description = jTextArea1.getText();  
    String price = jTextField4.getText();  
  
    try {  
        MySQL.execute("UPDATE `subject` SET "  
            + "`Subno`='" + id + "',"  
            + "`name`='" + name + "',"  
            + "`description`='" + description + "',"  
            + "`price`='" + price + ""  
            + "WHERE `Subno`='" + id + """);  
        loadsubject();  
        reset();  
    }
```

```
jTable1.setEnabled(true);
```

```
jButton3.setEnabled(true);
```

```
    } catch (Exception e) {
```

```
        e.printStackTrace();
```

```
    }
```

```
}
```

Search

```
String text = jTextField5.getText();
```

```
    loadsubject(text);
```


Class Registration

Class

Search

ID	Name	Subject	Date	From	To
1	12V	Commerce	2023-04-03	02:00:00	04:00:00
2	12A	I.C.T	2023-08-09	04:00:00	06:00:00

ID

Date

ADD CLASS

Name

Time

From

UPDATE CLASS

Subject

Select

To

DELETE CLASS

Insert

```
String id = jTextField1.getText();
```

```
String name = jTextField2.getText();
```

```
String subject = String.valueOf(jComboBox1.getSelectedItem());
```

```
String day = jTextField4.getText();
```

```
String from = jTextField5.getText();
```

```
String to = jTextField6.getText();
```

```
try {
```

```
    int subid = subjectMap.get(subject);
```

```

MySQL.execute("INSERT INTO `class` "
    + "(`Classno`,`name`,`date`,`from`,`to`,`Subject_Subno`) "
    + "VALUES ('" + id + "','" + name + "','" + day + "','" + from + "','" + to + "','" + subid + "')");

loadclass();

reset();

} catch (Exception e) {

    e.printStackTrace();

}

```

Delete

```
int selectedRow = jTable1.getSelectedRow();
```

```

if (selectedRow == -1) {

    System.out.println("Please select row");

} else {

```

```
String id = String.valueOf(jTable1.getValueAt(selectedRow, 0));
```

```
try {
```

```
MySQL.execute("DELETE FROM `class` WHERE `Classno`='" + id + "'");
```

```
loadclass();
```

```
reset();
```

```
jTable1.setEnabled(true);
```

```
jButton3.setEnabled(true);

} catch (Exception e) {

    e.printStackTrace();

}

}
```

Update

```
int selectRow = jTable1.getSelectedRow();
```

```
if (selectRow == -1) {

    System.out.println("Select Row");

} else {

    String id = String.valueOf(jTable1.getValueAt(selectRow, 0));

    String name = jTextField2.getText();

    String subject = String.valueOf(jComboBox1.getSelectedItem());

    String date = jTextField4.getText();

    String from = jTextField5.getText();

    String to = jTextField6.getText();

    try {

        int subid = subjectMap.get(subject);

        MySQL.execute("UPDATE `class` SET `Classno`='" + id + "',"

            + "`name`='" + name + "',"
```

```

        + "`date`='" + date + "',"
        + "`from`='" + from + "',"
        + "`to`='" + to + "',"
        + "`Subject_Subno`='" + subid + ""
        + "WHERE `Classno`='" + id + """);

loadclass();

reset();


jTable1.setEnabled(true);

jButton3.setEnabled(true);
} catch (Exception e) {

    e.printStackTrace();

}

}

```

Search

```

String text = jTextField5.getText();

loadclass(text);

```

Payment Registration

Payments					
Student ID	Student Name	Subject	Fee	Month	Status

ID

Fee

ADD PAYMENT

Name

Month

UPDATE PAYMENT

Subject

Status

PRINT INVOICE

Insert

```
String sid = jTextField1.getText();
```

```
String sname = jTextField2.getText();
```

```
String fee = jTextField4.getText();
```

```
String subject = String.valueOf(jComboBox2.getSelectedItem());
```

```
String month = String.valueOf(jComboBox1.getSelectedItem());
```

```
String status = String.valueOf(jComboBox3.getSelectedItem());
```

```

try {

    int subid = SubMap.get(subject);

    int monthid = monthMap.get(month);

    int statusid = StatusMap.get(status);

    MySQL.execute("INSERT INTO "

        + "`invoice`(`Sid`,`sname`,`Subject_Subno`,`fee`,`month_id`,`status_id`)"

        + "VALUES('" + sid + "','" + sname + "','" + subid + "','" + fee + "','" + monthid + "','" + statusid +

        "')");

    loadinvoice();

    reset();

} catch (Exception e) {

    e.printStackTrace();

}

```

Update

```

int selectedRow = jTable1.getSelectedRow();

if (selectedRow == -1) {

    System.out.println("Select Row");

} else {

    String id = String.valueOf(jTable1.getValueAt(selectedRow, 0));

    String sid = jTextField1.getText();

    String sname = jTextField2.getText();

    String fee = jTextField4.getText();

```

```

String subject = String.valueOf(jComboBox2.getSelectedItem());

String month = String.valueOf(jComboBox1.getSelectedItem());

String status = String.valueOf(jComboBox3.getSelectedItem());


try {

    int subid = SubMap.get(subject);

    int monthid = monthMap.get(month);

    int statusid = StatusMap.get(status);

    MySQL.execute("UPDATE `invoice` SET "
        + "`Sid`='" + sid + "',"
        + "`sname`='" + sname + "',"
        + "`Subject_Subno`='" + subid + "',"
        + "`fee`=" + fee + ","
        + "`month_id`='" + monthid + "',"
        + "`status_id`='" + statusid + "',"
        + "WHERE `Sid`='" + id + "'");

    loadinvoice();

    reset();

    jTable1.setEnabled(true);

    jButton3.setEnabled(true)

} catch (Exception e) {

    e.printStackTrace();

}

}

```

Attendance

Attendance

Select Class

Select ▼

Student ID	Student Name	Class	Payment Status	Attendance
1	imeth	12V	paid	Unmark

ID

Name

Class

Payment Status

Attendance

Select ▼

Select ▼

☐ Mark

☐ Unmark

ADD ATTENDANCE

UPDATE ATTENDANCE

Insert

```
String id = jTextField3.getText();
```

```
String name = jTextField4.getText();
```

```
String pstatus = String.valueOf(jComboBox2.getSelectedItem());
```

```
String clz = String.valueOf(jComboBox1.getSelectedItem());
```

```
ButtonModel attendanceSelect = buttonGroup1.getSelection();
```

```
try {
```

```
String attendanceid = attendanceSelect.getActionCommand();
```



```

int psid = PstatusMap.get(pstatus);

int clzid = classMap.get(clz);

MySQL.execute("INSERT INTO "

    + "`attendance`(`id`,`name`,`class_Classno`,`status_id`,`mark_id`)"

    + "VALUES('" + id + "','" + name + "','" + clzid + "','" + psid + "','" + attendanceid + "')");

loadattendance();

reset();

} catch (Exception e) {

    e.printStackTrace();

}

```

Update

```

String id = jTextField3.getText();

String name = jTextField4.getText();

String pstatus = String.valueOf(jComboBox2.getSelectedItem());

String clz = String.valueOf(jComboBox1.getSelectedItem());

ButtonModel attendanceSelect = buttonGroup1.getSelection();

try {

    String attendanceid = attendanceSelect.getActionCommand();

    int psid = PstatusMap.get(pstatus);

    int clzid = classMap.get(clz);

    MySQL.execute("UPDATE `attendance` SET "

        + "`id`='" + id + "',"

        + "`name`='" + name + "',"

        + "`class_Classno`='" + clzid + "',"

        + "`status_id`='" + psid + "',"

        + "`mark_id`='" + attendanceid + "'"

```

```

        + "WHERE `id`='" + id + "'");

loadattendance();

reset();

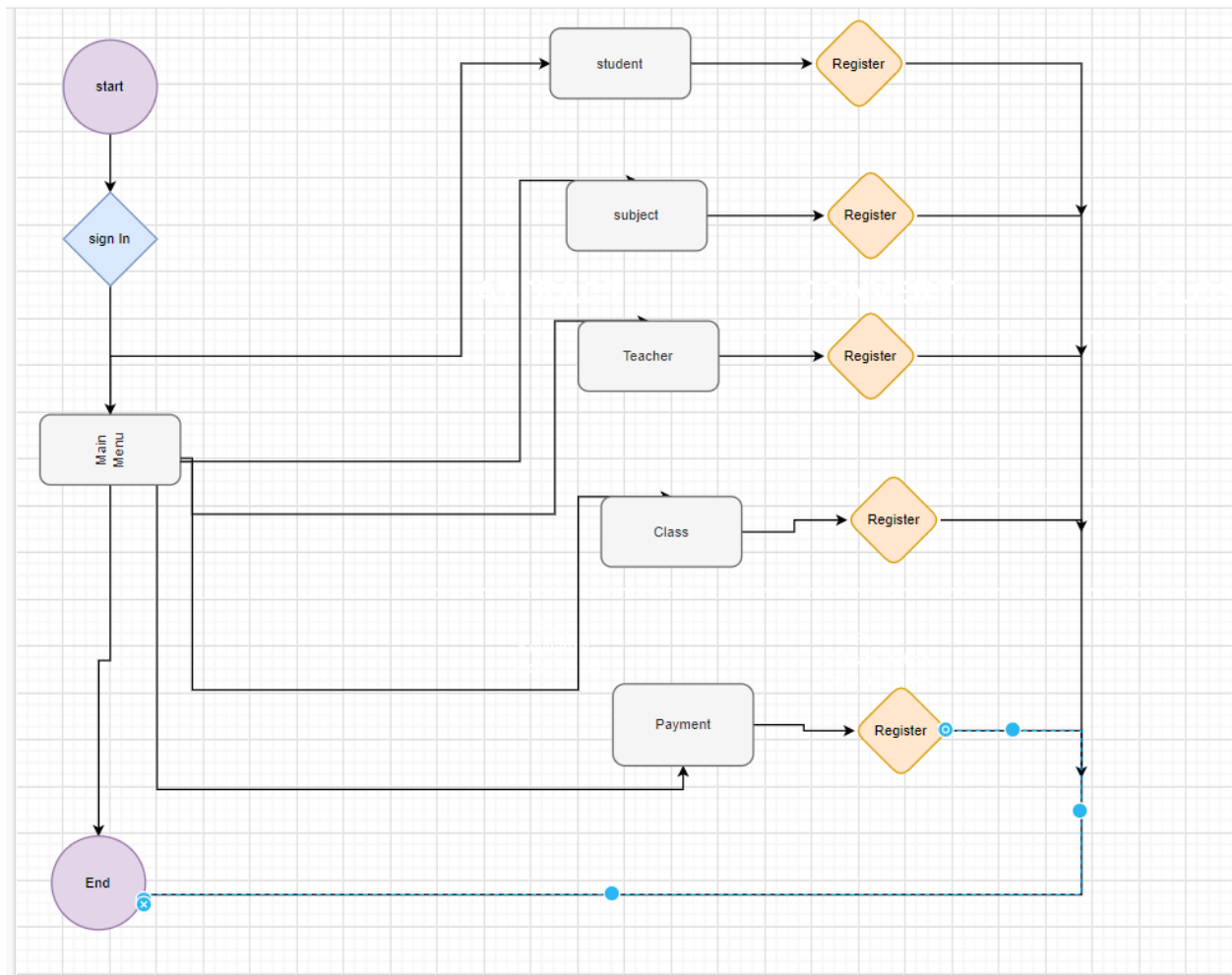
} catch (Exception e) {

    e.printStackTrace();

}

```

Business process diagram



Use case diagram

