

Practical Applications in CS I - Session 03.02

jFrameForm class variables

```
Connection con = null;
Statement stmt = null;
ResultSet rs = null;
```

DoConnect

```
try {
    String uName = "root";
    String uPass = "root";
    String db = "jdbc:mysql://localhost:3306/CSITResults";
    con = DriverManager.getConnection(db, uName, uPass);
    stmt = con.createStatement(ResultSet.TYPE_SCROLL_SENSITIVE,
        ResultSet.CONCUR_UPDATABLE);
    String SQL = "SELECT * FROM CSIT12Results";
    rs = stmt.executeQuery(SQL);
    rs.next();
    getRecord();
} catch (SQLException err) {
    JOptionPane.showMessageDialog(this, err.getMessage());
}
```

getRecord

```
try {
    jTextField1.setText(rs.getString("StudentID"));
    jTextField2.setText(rs.getString("StudentName"));
    jTextField3.setText(rs.getString("CH"));
    jTextField4.setText(rs.getString("GPA"));
    jTextField5.setText(rs.getString("English_Language_I"));
    jTextField6.setText(rs.getString("English_Language_II"));
    jTextField7.setText(rs.getString("Linear_Algebra_I"));
    jTextField8.setText(rs.getString("Calculus_I"));
    jTextField9.setText(rs.getString("Calculus_II"));
}
```

```
jTextField10.setText(rs.getString("Discrete_Math"));
jTextField11.setText(rs.getString("Management"));
jTextField12.setText(rs.getString("Fundamentals_of_Programming_I"));

jTextField13.setText(rs.getString("Introduction_to_Computer_Science"));
jTextField14.setText(rs.getString("Electronics"));
jTextField15.setText(rs.getString("Physics"));
jTextField16.setText(rs.getString("Critical_Creative_Thinking"));

jTextField17.setText(rs.getString("Presentation_and_Communication_Skills"));
} catch (SQLException err) {
    JOptionPane.showMessageDialog(this, err.getMessage());
}
```

jFrameForm constructor

DoConnect

Next button

```
try {
    rs.next();
    getRecord();
} catch (SQLException err) {
    JOptionPane.showMessageDialog(this, err.getMessage());
}
```

Previous button

```
try {
    rs.previous();
    getRecord();
} catch (SQLException err) {
    JOptionPane.showMessageDialog(this, err.getMessage());
}
```

Last button

```
try {
    rs.last();
    getRecord();
} catch (SQLException err) {
    JOptionPane.showMessageDialog(this, err.getMessage());
}
```

First button

```
try {
    rs.first();
    getRecord();
} catch (SQLException err) {
    JOptionPane.showMessageDialog(this, err.getMessage());
}
```

Delete button

```
try {
    rs.deleteRow();
    getRecord();
} catch (SQLException err) {
    JOptionPane.showMessageDialog(this, err.getMessage());
}
```

Update button

```
try {
    rs.updateString("StudentID", jTextField1.getText());
    rs.updateString("StudentName", jTextField2.getText());
    rs.updateString("CH", jTextField3.getText());
    rs.updateString("GPA", jTextField4.getText());
    rs.updateString("English_Language_I", jTextField5.getText());
    rs.updateString("English_Language_II", jTextField6.getText());
    rs.updateString("Linear_Algebra_I", jTextField7.getText());
    rs.updateString("Calculus_I", jTextField8.getText());
}
```

```
rs.updateString("Calculus_II", jTextField9.getText());
rs.updateString("Discrete_Math", jTextField10.getText());
rs.updateString("Management", jTextField11.getText());
rs.updateString("Fundamentals_of_Programming_I",
jTextField12.getText());
rs.updateString("Introduction_to_Computer_Science",
jTextField13.getText());
rs.updateString("Electronics", jTextField14.getText());
rs.updateString("Physics", jTextField15.getText());
rs.updateString("Critical_Creative_Thinking",
jTextField16.getText());
rs.updateString("Presentation_and_Communication_Skills",
jTextField17.getText());
rs.updateRow();
} catch (SQLException err) {
    JOptionPane.showMessageDialog(this, err.getMessage());
}
```

Insert button

```
jButton1.setEnabled(false);
jButton2.setEnabled(false);
jButton3.setEnabled(false);
jButton4.setEnabled(false);
jButton5.setEnabled(false);
jButton6.setEnabled(false);
jButton7.setEnabled(false);
jButton8.setEnabled(true);
jButton9.setEnabled(true);
jTextField1.setText("");
jTextField2.setText("");
jTextField3.setText("");
jTextField4.setText("");
jTextField5.setText("");
jTextField6.setText("");
jTextField7.setText("");
```

```
jTextField8.setText("");  
jTextField9.setText("");  
jTextField10.setText("");  
jTextField11.setText("");  
jTextField12.setText("");  
jTextField13.setText("");  
jTextField14.setText("");  
jTextField15.setText("");  
jTextField16.setText("");  
jTextField17.setText("");
```

Cancel new Record button

```
getRecord();  
jButton1.setEnabled(true);  
jButton2.setEnabled(true);  
jButton3.setEnabled(true);  
jButton4.setEnabled(true);  
jButton5.setEnabled(true);  
jButton6.setEnabled(true);  
jButton7.setEnabled(true);  
jButton8.setEnabled(false);  
jButton9.setEnabled(false);
```

Insert new Record button

```
try {  
    rs.moveToInsertRow();  
    rs.updateString("StudentID", jTextField1.getText());  
    rs.updateString("StudentName", jTextField2.getText());  
    rs.updateString("CH", jTextField3.getText());  
    rs.updateString("GPA", jTextField4.getText());  
    rs.updateString("English_Language_I", jTextField5.getText());  
    rs.updateString("English_Language_II", jTextField6.getText());  
    rs.updateString("Linear_Algebra_I", jTextField7.getText());  
    rs.updateString("Calculus_I", jTextField8.getText());
```

```
rs.updateString("Calculus_II", jTextField9.getText());
rs.updateString("Discrete_Math", jTextField10.getText());
rs.updateString("Management", jTextField11.getText());
rs.updateString("Fundamentals_of_Programming_I",
jTextField12.getText());
rs.updateString("Introduction_to_Computer_Science",
jTextField13.getText());
rs.updateString("Electronics", jTextField14.getText());
rs.updateString("Physics", jTextField15.getText());
rs.updateString("Critical_Creative_Thinking",
jTextField16.getText());
rs.updateString("Presentation_and_Communication_Skills",
jTextField17.getText());
rs.insertRow();
getRecord();
jButton1.setEnabled(true);
jButton2.setEnabled(true);
jButton3.setEnabled(true);
jButton4.setEnabled(true);
jButton5.setEnabled(true);
jButton6.setEnabled(true);
jButton7.setEnabled(true);
jButton8.setEnabled(false);
jButton9.setEnabled(false);
} catch (SQLException err) {
    JOptionPane.showMessageDialog(this, err.getMessage());
}
```