

Advanced Internet Programming Lab

Subject Code:22CAP-686

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Section/Group-MCD-1/A

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Experiment No. 2.1

1. Aim/Overview of the practical:

Implement database connectivity to perform CRUD commands in server-side applications.

To create a Servlet file that contains the following functions.

Connect, Create Database, Create Table, Insert Records into the respective table, Update records of the particular table of the database, Delete Records from the table, Delete table and database.

2. **Code:** Insert Record, Update record, Delete Record (rahul.java)

Import package:

```
import java. util. logging. Level;  
import java. util. logging. Logger;  
import java.sql. Connection;  
import java.sql. DriverManager;  
import javax. swing. JOptionPane;
```

Insert(code):

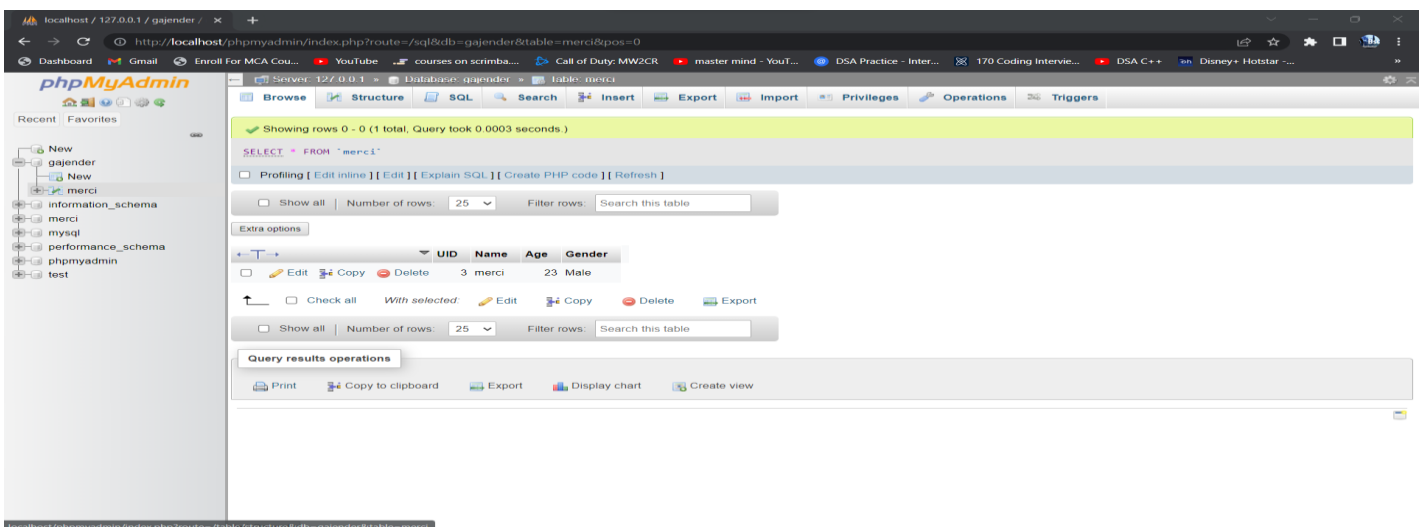
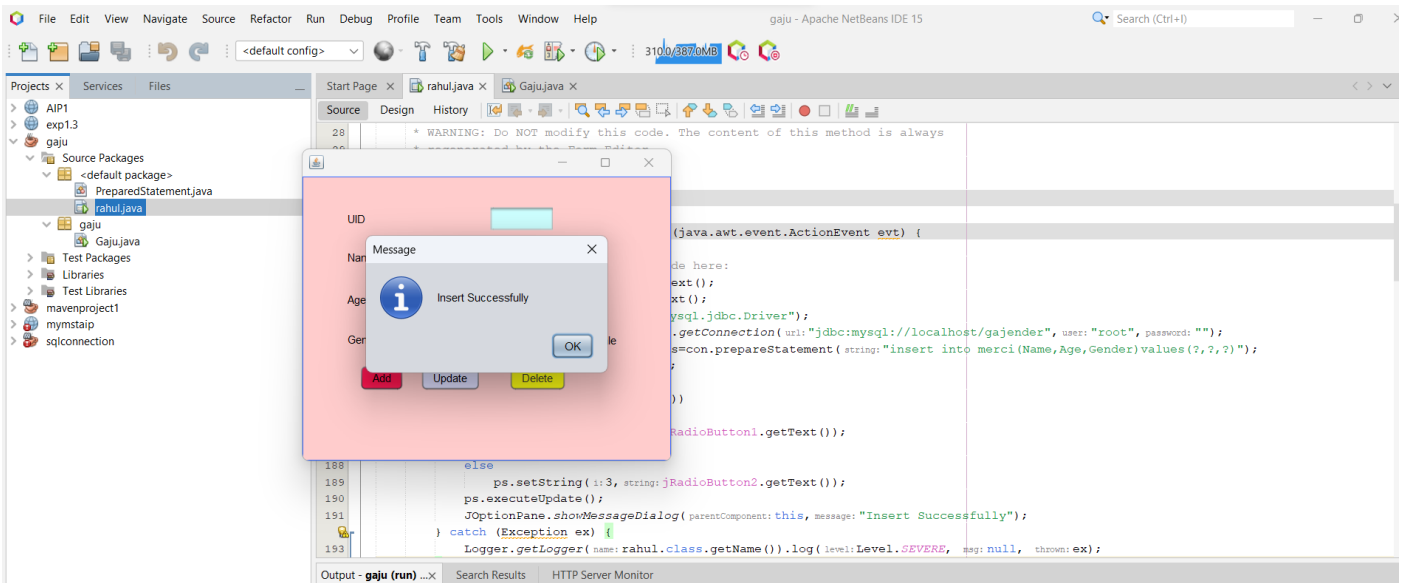
```
private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {  
  
    try {  
  
        // TODO add your handling code here:  
  
        String Name=jTextField2.getText();  
  
        String Age=jTextField3.getText();  
  
        Class.forName("com.mysql.jdbc.Driver");  
  
        Connection con=DriverManager.getConnection("jdbc:mysql://localhost/gajender","root","");  
  
        java.sql.PreparedStatement ps=con.prepareStatement("insert into merci(Name,Age,Gender)values(?,?,?)");  
  
        ps.setString(1,Name);  
  
        ps.setString(2,Age);  
  
        if(jRadioButton1.isSelected())  
  
        {
```

```
ps.setString(3,jRadioButton1.getText());
}
else
ps.setString(3,jRadioButton2.getText());

ps.executeUpdate();

JOptionPane.showMessageDialog(this,"Insert Successfully");
} catch (Exception ex) {

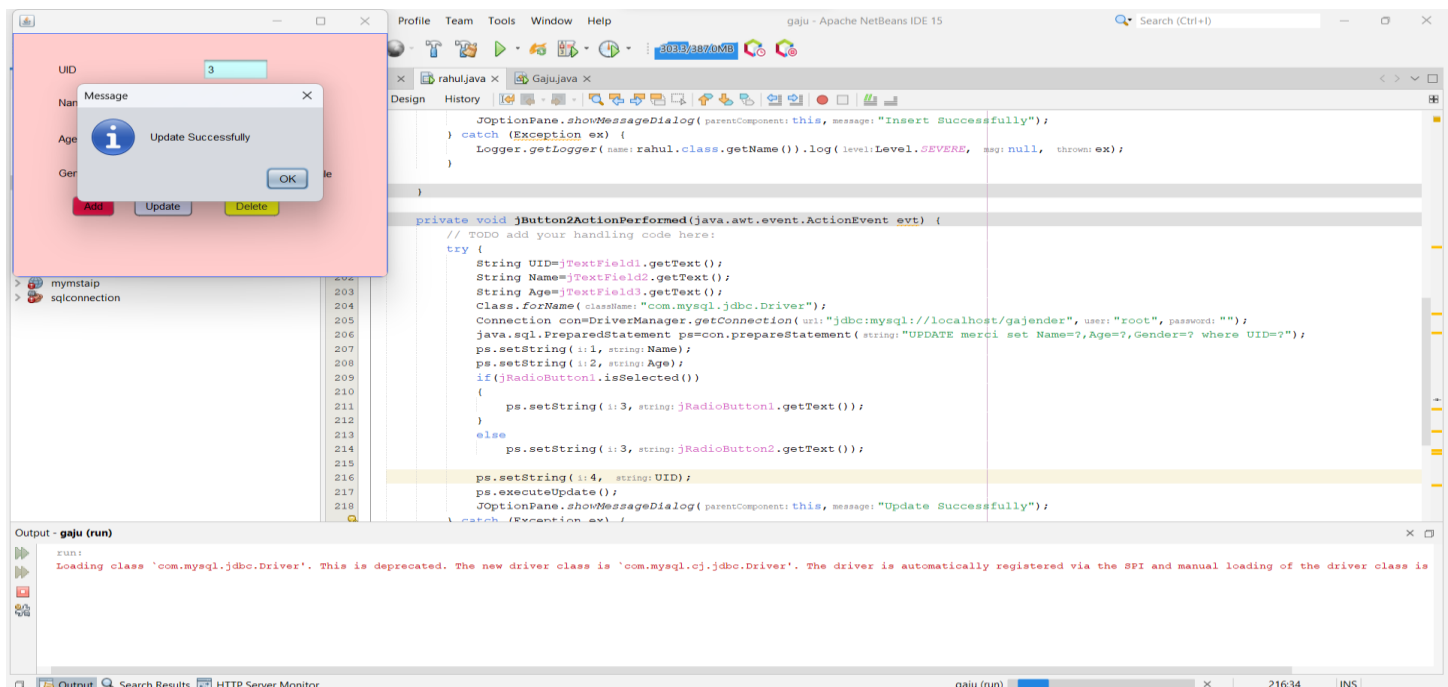
    Logger.getLogger(rahul.class.getName()).log(Level.SEVERE, null, ex);
}
```

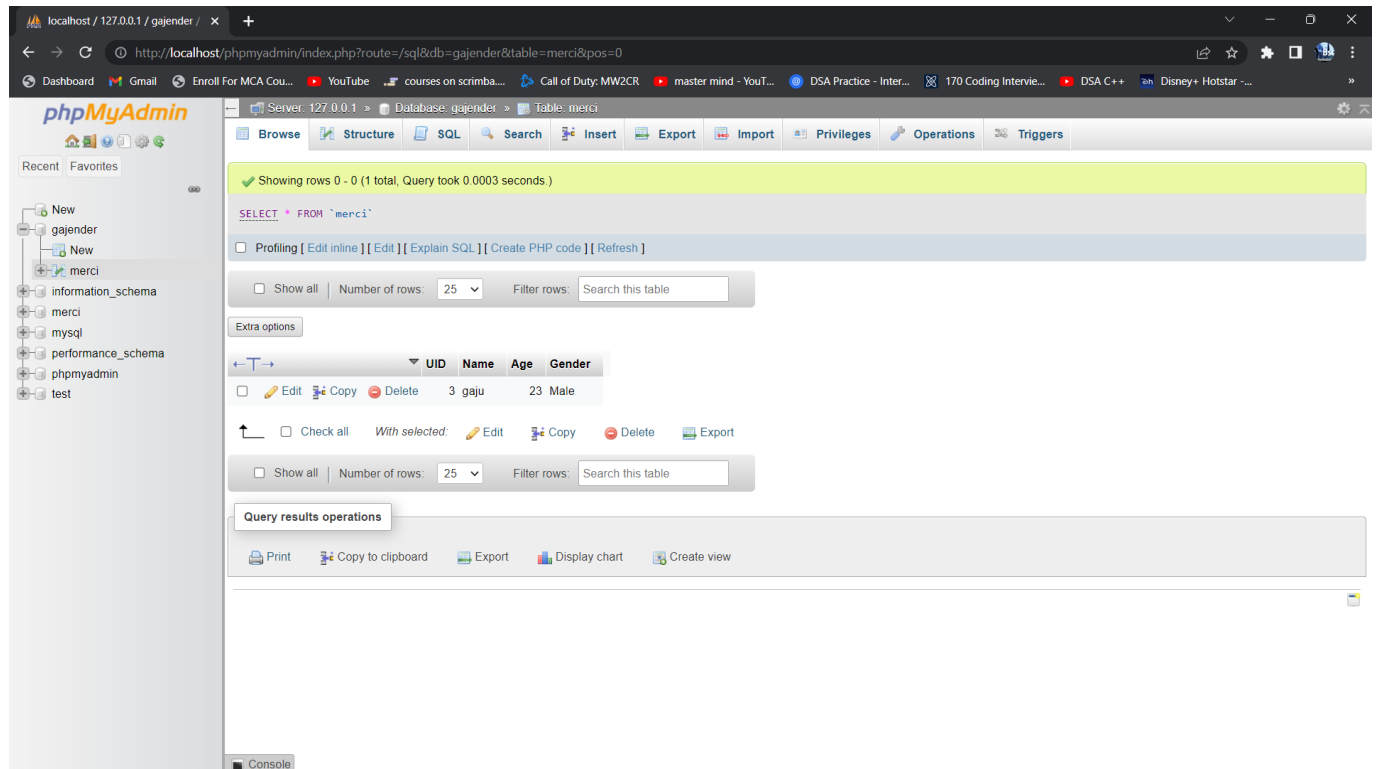


Update(code):

```
private void jButton2ActionPerformed(java.awt.event.ActionEvent evt) {
    // TODO add your handling code here:
    try {
        String UID=jTextField1.getText();
        String Name=jTextField2.getText();
        String Age=jTextField3.getText();
        Class.forName("com.mysql.jdbc.Driver");
        Connection con=DriverManager.getConnection("jdbc:mysql://localhost/gajender","root","");
        java.sql.PreparedStatement ps=con.prepareStatement("UPDATE merci set Name=?,Age=?,Gender=? where
UID=?");
        ps.setString(1,Name);
        ps.setString(2,Age);
        if(jRadioButton1.isSelected())
        {
            ps.setString(3,jRadioButton1.getText());
        }
        else
            ps.setString(3,jRadioButton2.getText());

        ps.setString(4, UID);
        ps.executeUpdate();
        JOptionPane.showMessageDialog(this,"Update Successfully");
    } catch (Exception ex) {
        Logger.getLogger(rahul.class.getName()).log(Level.SEVERE, null, ex);
    }
}
```



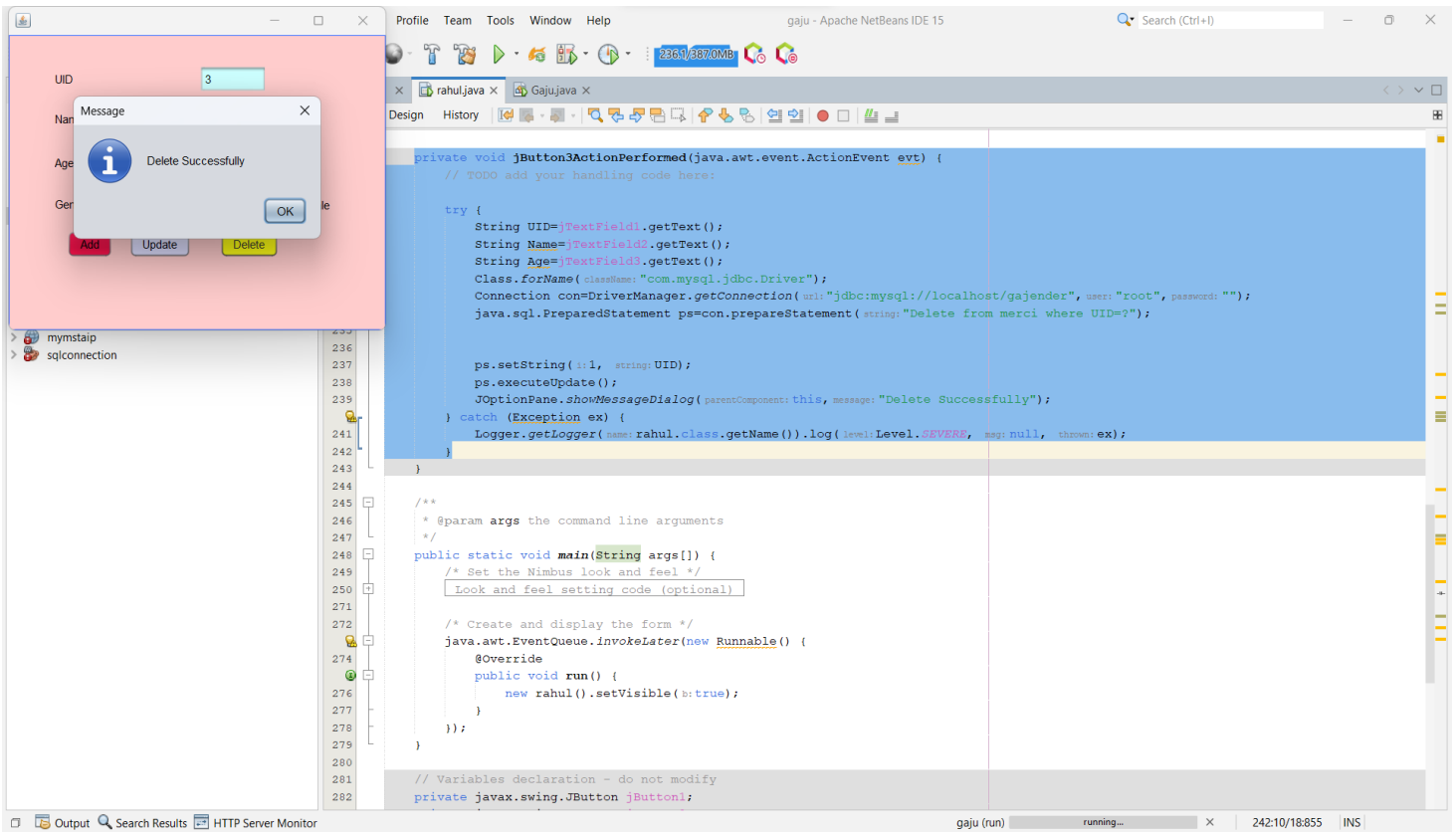


Delete(code):

```
private void jButton3ActionPerformed(java.awt.event.ActionEvent evt) {
    // TODO add your handling code here:

    try {
        String UID=jTextField1.getText();
        String Name=jTextField2.getText();
        String Age=jTextField3.getText();
        Class.forName("com.mysql.jdbc.Driver");
        Connection con=DriverManager.getConnection("jdbc:mysql://localhost/gajender","root","");
        java.sql.PreparedStatement ps=con.prepareStatement("Delete from merci where UID=?");

        ps.setString(1, UID);
        ps.executeUpdate();
        JOptionPane.showMessageDialog(this,"Delete Successfully");
    } catch (Exception ex) {
        Logger.getLogger(rahul.class.getName()).log(Level.SEVERE, null, ex);
    }
}
```



The screenshot shows the Apache NetBeans IDE with a Java file named 'Gaju.java'. The code implements a simple database application using JDBC. A message dialog titled 'Delete Successfully' is shown, indicating a successful database operation. The code includes a 'main' method that sets up the application and a 'private void jButton3ActionPerformed' method that handles the delete action.

```

private void jButton3ActionPerformed(java.awt.event.ActionEvent evt) {
    // TODO add your handling code here:
    try {
        String UID=jTextField1.getText();
        String Name=jTextField2.getText();
        String Age=jTextField3.getText();
        Class.forName("com.mysql.jdbc.Driver");
        Connection con=DriverManager.getConnection("jdbc:mysql://localhost/gajender", user: "root", password: "");
        java.sql.PreparedStatement ps=con.prepareStatement("Delete from merci where UID=?");

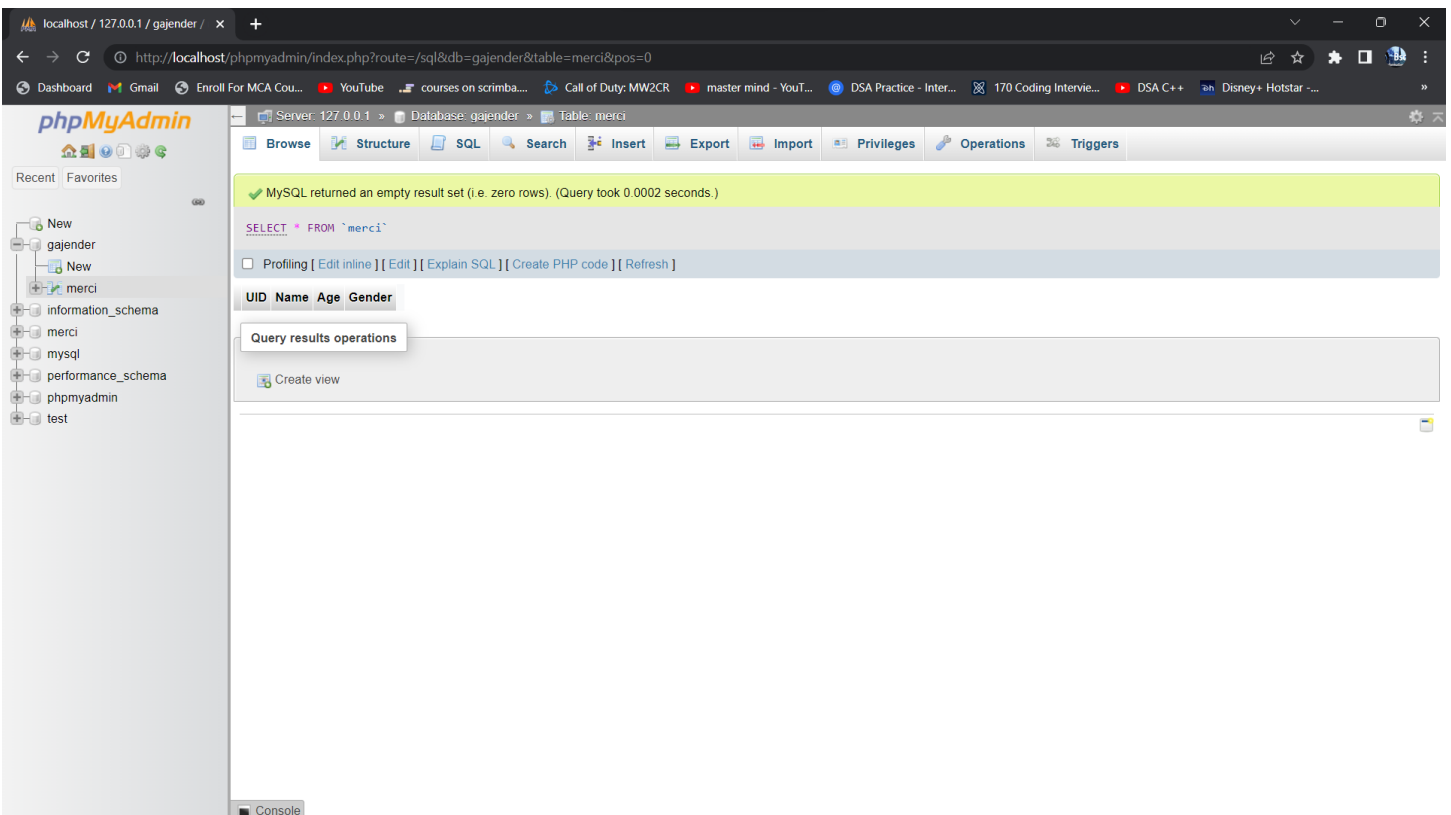
        ps.setString(1, UID);
        ps.executeUpdate();
        JOptionPane.showMessageDialog(parentComponent: this, message: "Delete Successfully");
    } catch (Exception ex) {
        Logger.getLogger("rahu.class.getName").log(Level.SEVERE, null, ex);
    }
}

/**
 * @param args the command line arguments
 */
public static void main(String args[]) {
    /* Set the Nimbus look and feel */
    Look and feel setting code (optional)

    /* Create and display the form */
    java.awt.EventQueue.invokeLater(new Runnable() {
        @Override
        public void run() {
            new rahul().setVisible(true);
        }
    });
}

// Variables declaration - do not modify
private javax.swing.JButton jButton1;

```



The screenshot shows the phpMyAdmin interface. The 'merci' table in the 'gajender' database is selected. The table is empty, as indicated by the message 'MySQL returned an empty result set (i.e. zero rows)'. The table structure shows columns: UID, Name, Age, and Gender. The 'Query results operations' section is visible, showing a 'Create view' button.