**public** **class** Main {

**public** **static** **void** main(String[] args) {

**new** Login();

}

}

**import** javax.swing.\*;

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

**public** **class** MainMenu **extends** JFrame {

**public** MainMenu() {

setTitle("Main Menu");

setSize(800, 600);

setDefaultCloseOperation(JFrame.***EXIT\_ON\_CLOSE***);

JPanel panel = **new** JPanel();

panel.setBackground(Color.***LIGHT\_GRAY***);

add(panel);

placeComponents(panel);

setVisible(**true**);

}

**private** **void** placeComponents(JPanel panel) {

panel.setLayout(**null**);

JLabel welcomeLabel = **new** JLabel("Welcome to the Attendance Management System", SwingConstants.***CENTER***);

welcomeLabel.setBounds(150, 100, 500, 25);

welcomeLabel.setForeground(Color.***BLACK***);

welcomeLabel.setFont(**new** Font("Times New Roman", Font.***BOLD***, 18));

panel.add(welcomeLabel);

JButton teacherButton = **new** JButton("Teacher Dashboard");

teacherButton.setBounds(250, 200, 300, 25);

teacherButton.setForeground(Color.***BLACK***);

teacherButton.setBackground(Color.***LIGHT\_GRAY***);

panel.add(teacherButton);

JButton studentButton = **new** JButton("Student Dashboard");

studentButton.setBounds(250, 250, 300, 25);

studentButton.setForeground(Color.***BLACK***);

studentButton.setBackground(Color.***LIGHT\_GRAY***);

panel.add(studentButton);

teacherButton.addActionListener(e -> {

dispose();

**new** TeacherDashboard();

});

studentButton.addActionListener(e -> {

dispose();

**new** StudentDashboard();

});

}

}

**import** javax.swing.\*;

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

**import** java.awt.event.ActionEvent;

**import** java.awt.event.ActionListener;

**public** **class** TeacherDashboard {

**public** TeacherDashboard() {

JFrame frame = **new** JFrame("Teacher Dashboard");

frame.setSize(800, 600);

frame.setDefaultCloseOperation(JFrame.***DISPOSE\_ON\_CLOSE***);

JPanel panel = **new** JPanel();

panel.setBackground(Color.***LIGHT\_GRAY***);

frame.add(panel);

placeComponents(panel, frame);

frame.setVisible(**true**);

}

**private** **void** placeComponents(JPanel panel, JFrame frame) {

panel.setLayout(**null**);

JLabel welcomeLabel = **new** JLabel("Teacher Dashboard", SwingConstants.***CENTER***);

welcomeLabel.setBounds(250, 50, 300, 25);

welcomeLabel.setForeground(Color.***BLACK***);

welcomeLabel.setFont(**new** Font("Times New Roman", Font.***BOLD***, 18));

panel.add(welcomeLabel);

JButton manageAttendanceButton = **new** JButton("Manage Attendance");

manageAttendanceButton.setBounds(250, 150, 300, 25);

manageAttendanceButton.setForeground(Color.***BLACK***);

manageAttendanceButton.setBackground(Color.***LIGHT\_GRAY***);

panel.add(manageAttendanceButton);

JButton generateReportsButton = **new** JButton("Generate Reports");

generateReportsButton.setBounds(250, 200, 300, 25);

generateReportsButton.setForeground(Color.***BLACK***);

generateReportsButton.setBackground(Color.***LIGHT\_GRAY***);

panel.add(generateReportsButton);

manageAttendanceButton.addActionListener(**new** ActionListener() {

**public** **void** actionPerformed(ActionEvent e) {

frame.dispose();

**new** AttendanceManagement();

}

});

generateReportsButton.addActionListener(**new** ActionListener() {

**public** **void** actionPerformed(ActionEvent e) {

frame.dispose();

**new** ReportGeneration();

}

});

JButton backButton = **new** JButton("Back");

backButton.setBounds(250, 250, 300, 25);

backButton.setForeground(Color.***BLACK***);

backButton.setBackground(Color.***LIGHT\_GRAY***);

panel.add(backButton);

backButton.addActionListener(**new** ActionListener() {

**public** **void** actionPerformed(ActionEvent e) {

frame.dispose();

**new** MainMenu();

}

});

}

}

**import** javax.swing.\*;

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

**import** java.awt.event.ActionEvent;

**import** java.awt.event.ActionListener;

**import** java.sql.Connection;

**import** java.sql.PreparedStatement;

**import** java.sql.ResultSet;

**import** java.sql.SQLException;

**public** **class** AttendanceManagement **extends** JFrame {

**private** JComboBox<String> studentComboBox;

**private** JComboBox<String> statusComboBox;

**public** AttendanceManagement() {

setTitle("Attendance Management");

setSize(800, 600);

setDefaultCloseOperation(JFrame.***DISPOSE\_ON\_CLOSE***);

JPanel panel = **new** JPanel();

panel.setBackground(Color.***LIGHT\_GRAY***);

add(panel);

placeComponents(panel);

setVisible(**true**);

}

**private** **void** placeComponents(JPanel panel) {

panel.setLayout(**null**);

JLabel welcomeLabel = **new** JLabel("Attendance Management", SwingConstants.***CENTER***);

welcomeLabel.setBounds(250, 50, 300, 25);

welcomeLabel.setForeground(Color.***BLACK***);

welcomeLabel.setFont(**new** Font("Times New Roman", Font.***BOLD***, 18));

panel.add(welcomeLabel);

JLabel studentLabel = **new** JLabel("Select Student:");

studentLabel.setBounds(200, 150, 100, 25);

panel.add(studentLabel);

String[] students = {"Ali (Father: Ibrahim)", "Sara (Father: Ali)", "Zara (Father: Yasir)", "Sana (Father: Ali)"};

studentComboBox = **new** JComboBox<>(students);

studentComboBox.setBounds(350, 150, 300, 25);

panel.add(studentComboBox);

JLabel statusLabel = **new** JLabel("Status:");

statusLabel.setBounds(200, 200, 100, 25);

panel.add(statusLabel);

String[] statuses = {"Present", "Absent"};

statusComboBox = **new** JComboBox<>(statuses);

statusComboBox.setBounds(350, 200, 300, 25);

panel.add(statusComboBox);

JButton markAttendanceButton = **new** JButton("Mark Attendance");

markAttendanceButton.setBounds(250, 250, 300, 25);

markAttendanceButton.setForeground(Color.***BLACK***);

markAttendanceButton.setBackground(Color.***LIGHT\_GRAY***);

panel.add(markAttendanceButton);

markAttendanceButton.addActionListener(**new** ActionListener() {

**public** **void** actionPerformed(ActionEvent e) {

markAttendance();

}

});

JButton backButton = **new** JButton("Back");

backButton.setBounds(250, 300, 300, 25);

backButton.setForeground(Color.***BLACK***);

backButton.setBackground(Color.***LIGHT\_GRAY***);

panel.add(backButton);

backButton.addActionListener(**new** ActionListener() {

**public** **void** actionPerformed(ActionEvent e) {

dispose();

**new** StudentDashboard(); // Navigate back to student dashboard

}

});

}

**private** **void** markAttendance() {

String selectedStudent = (String) studentComboBox.getSelectedItem();

// Parse selected student and father name from the combo box selection

String studentName = selectedStudent.split(" \\(Father: ")[0];

String fatherName = selectedStudent.split(" \\(Father: ")[1].replace(")", "");

**int** studentID = getStudentIDByNameAndFatherName(studentName, fatherName);

**if** (studentID != -1) {

String status = (String) statusComboBox.getSelectedItem();

**try** (Connection connection = DatabaseConnection.*getConnection*()) {

String query = "INSERT INTO Attendance (StudentID, AttendanceDate, Status) VALUES (?, CURRENT\_DATE, ?)";

PreparedStatement preparedStatement = connection.prepareStatement(query);

preparedStatement.setInt(1, studentID);

preparedStatement.setString(2, status);

preparedStatement.executeUpdate();

JOptionPane.*showMessageDialog*(**this**, "Attendance marked successfully!");

} **catch** (SQLException ex) {

ex.printStackTrace();

JOptionPane.*showMessageDialog*(**this**, "Error marking attendance: " + ex.getMessage());

}

} **else** {

JOptionPane.*showMessageDialog*(**this**, "Student not found."); // Ideally, this should not occur if GUI and data are consistent

}

}

**private** **int** getStudentIDByNameAndFatherName(String studentName, String fatherName) {

**int** studentID = -1;

**try** (Connection connection = DatabaseConnection.*getConnection*()) {

String query = "SELECT s.StudentID FROM Students s JOIN Users u ON s.UserID = u.UserID WHERE s.Name = ? AND s.FatherName = ?";

PreparedStatement preparedStatement = connection.prepareStatement(query);

preparedStatement.setString(1, studentName);

preparedStatement.setString(2, fatherName);

ResultSet resultSet = preparedStatement.executeQuery();

**if** (resultSet.next()) {

studentID = resultSet.getInt("StudentID");

}

} **catch** (SQLException ex) {

ex.printStackTrace();

}

**return** studentID;

}

**public** **static** **void** main(String[] args) {

SwingUtilities.*invokeLater*(**new** Runnable() {

**public** **void** run() {

**new** AttendanceManagement();

}

});

}

}

**import** javax.swing.\*;

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

**import** java.awt.event.ActionEvent;

**import** java.awt.event.ActionListener;

**import** java.sql.Connection;

**import** java.sql.PreparedStatement;

**import** java.sql.ResultSet;

**import** java.sql.SQLException;

**public** **class** ReportGeneration **extends** JFrame {

**private** JTextField studentNameField;

**private** JTextField fatherNameField; // Changed from rollNoField

**private** JTextArea reportArea;

**public** ReportGeneration() {

setTitle("Report Generation");

setSize(800, 600);

setDefaultCloseOperation(JFrame.***DISPOSE\_ON\_CLOSE***);

JPanel panel = **new** JPanel();

panel.setBackground(Color.***LIGHT\_GRAY***);

add(panel);

placeComponents(panel);

setVisible(**true**);

}

**private** **void** placeComponents(JPanel panel) {

panel.setLayout(**null**);

JLabel welcomeLabel = **new** JLabel("Report Generation", SwingConstants.***CENTER***);

welcomeLabel.setBounds(250, 50, 300, 25);

welcomeLabel.setForeground(Color.***BLACK***);

welcomeLabel.setFont(**new** Font("Times New Roman", Font.***BOLD***, 18));

panel.add(welcomeLabel);

JLabel nameLabel = **new** JLabel("Student Name:");

nameLabel.setBounds(200, 150, 100, 25);

panel.add(nameLabel);

studentNameField = **new** JTextField(20);

studentNameField.setBounds(350, 150, 200, 25);

panel.add(studentNameField);

JLabel fatherNameLabel = **new** JLabel("Father's Name:"); // Changed label

fatherNameLabel.setBounds(200, 200, 100, 25); // Adjusted position

panel.add(fatherNameLabel);

fatherNameField = **new** JTextField(20); // Changed field name

fatherNameField.setBounds(350, 200, 200, 25); // Adjusted position

panel.add(fatherNameField);

JButton generateReportButton = **new** JButton("Generate Report");

generateReportButton.setBounds(250, 250, 300, 25);

generateReportButton.setForeground(Color.***BLACK***);

generateReportButton.setBackground(Color.***LIGHT\_GRAY***);

panel.add(generateReportButton);

generateReportButton.addActionListener(**new** ActionListener() {

**public** **void** actionPerformed(ActionEvent e) {

generateReport();

}

});

reportArea = **new** JTextArea();

reportArea.setBounds(150, 300, 500, 200);

panel.add(reportArea);

JButton backButton = **new** JButton("Back");

backButton.setBounds(250, 520, 300, 25);

backButton.setForeground(Color.***BLACK***);

backButton.setBackground(Color.***LIGHT\_GRAY***);

panel.add(backButton);

backButton.addActionListener(**new** ActionListener() {

**public** **void** actionPerformed(ActionEvent e) {

dispose();

**new** TeacherDashboard(); // Assuming TeacherDashboard is another JFrame class

}

});

}

**private** **void** generateReport() {

String studentName = studentNameField.getText();

String fatherName = fatherNameField.getText().trim(); // Changed to fatherName

**if** (fatherName.isEmpty()) { // Changed to fatherName

JOptionPane.*showMessageDialog*(**this**, "Father's Name cannot be empty."); // Changed message

**return**;

}

**int** studentID = getStudentIDByFatherName(fatherName); // Changed method call

**if** (studentID != -1) {

**try** (Connection connection = DatabaseConnection.*getConnection*()) {

String query = "SELECT \* FROM Attendance WHERE StudentID = ?";

PreparedStatement preparedStatement = connection.prepareStatement(query);

preparedStatement.setInt(1, studentID);

ResultSet resultSet = preparedStatement.executeQuery();

StringBuilder reportContent = **new** StringBuilder();

reportContent.append("Attendance Report for ").append(studentName).append(" (Father's Name: ").append(fatherName).append(")\n\n");

**while** (resultSet.next()) {

String date = resultSet.getString("Date");

reportContent.append("Date: ").append(date).append("\n");

}

reportArea.setText(reportContent.toString());

} **catch** (SQLException ex) {

JOptionPane.*showMessageDialog*(**this**, "Error retrieving data from database: " + ex.getMessage());

}

} **else** {

JOptionPane.*showMessageDialog*(**this**, "Student with Father's Name " + fatherName + " not found."); // Changed message

}

}

**private** **int** getStudentIDByFatherName(String fatherName) { // Changed method name

**int** studentID = -1;

**try** (Connection connection = DatabaseConnection.*getConnection*()) {

String query = "SELECT StudentID FROM Students WHERE FatherName = ?"; // Changed query

PreparedStatement preparedStatement = connection.prepareStatement(query);

preparedStatement.setString(1, fatherName);

ResultSet resultSet = preparedStatement.executeQuery();

**if** (resultSet.next()) {

studentID = resultSet.getInt("StudentID");

}

} **catch** (SQLException ex) {

ex.printStackTrace();

}

**return** studentID;

}

**public** **static** **void** main(String[] args) {

SwingUtilities.*invokeLater*(**new** Runnable() {

**public** **void** run() {

**new** ReportGeneration();

}

});

}

}

**import** javax.swing.\*;

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

**public** **class** StudentDashboard **extends** JFrame {

**private** JComboBox<String> studentComboBox;

**public** StudentDashboard() {

setTitle("Student Dashboard");

setSize(800, 600);

setDefaultCloseOperation(JFrame.***EXIT\_ON\_CLOSE***);

JPanel panel = **new** JPanel();

panel.setBackground(Color.***LIGHT\_GRAY***);

add(panel);

placeComponents(panel);

setVisible(**true**);

}

**private** **void** placeComponents(JPanel panel) {

panel.setLayout(**null**);

JLabel welcomeLabel = **new** JLabel("Student Dashboard", SwingConstants.***CENTER***);

welcomeLabel.setBounds(250, 50, 300, 25);

welcomeLabel.setForeground(Color.***BLACK***);

welcomeLabel.setFont(**new** Font("Times New Roman", Font.***BOLD***, 18));

panel.add(welcomeLabel);

JLabel selectStudentLabel = **new** JLabel("Select Student:");

selectStudentLabel.setBounds(200, 150, 100, 25);

panel.add(selectStudentLabel);

studentComboBox = **new** JComboBox<>();

studentComboBox.setBounds(350, 150, 200, 25);

panel.add(studentComboBox);

// Add student names to the combo box

studentComboBox.addItem("Sara (Father: Ali)");

studentComboBox.addItem("Sana (Father: Ali)");

studentComboBox.addItem("Zara (Father: Yasir)");

studentComboBox.addItem("Yarsha (Father: Yaseen)");

studentComboBox.addItem("Anaum (Father: Ahmed)");

JButton viewAttendanceButton = **new** JButton("View Attendance");

viewAttendanceButton.setBounds(250, 200, 300, 25);

viewAttendanceButton.setForeground(Color.***BLACK***);

viewAttendanceButton.setBackground(Color.***LIGHT\_GRAY***);

panel.add(viewAttendanceButton);

viewAttendanceButton.addActionListener(e -> {

String selectedStudent = (String) studentComboBox.getSelectedItem();

**if** (selectedStudent != **null**) {

String studentName = selectedStudent.split(" \\(Father: ")[0];

String fatherName = selectedStudent.split(" \\(Father: ")[1].replace(")", "");

JOptionPane.*showMessageDialog*(**this**, "Selected Student: " + studentName + "\nFather's Name: " + fatherName);

} **else** {

JOptionPane.*showMessageDialog*(**this**, "Please select a student.");

}

});

JButton backButton = **new** JButton("Back");

backButton.setBounds(250, 250, 300, 25);

backButton.setForeground(Color.***BLACK***);

backButton.setBackground(Color.***LIGHT\_GRAY***);

panel.add(backButton);

backButton.addActionListener(e -> {

dispose();

**new** MainMenu();

});

}

**public** **static** **void** main(String[] args) {

SwingUtilities.*invokeLater*(() -> {

**new** StudentDashboard();

});

}

}

**import** java.sql.Connection;

**import** java.sql.DriverManager;

**import** java.sql.SQLException;

**public** **class** DatabaseConnection {

**public** **static** Connection getConnection() **throws** SQLException {

String url = "jdbc:oracle:thin:@localhost:1521:xe";

String username = "Student"; // Replace with your Oracle DB username

String password = "oracle"; // Replace with your Oracle DB password

**return** DriverManager.*getConnection*(url, username, password);

}

}