Topic: **Phonebook Application**

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Update Module

Function: UpdateContact(String name, String newPhoneNumber)

Purpose: Updates the phone number of an existing contact.
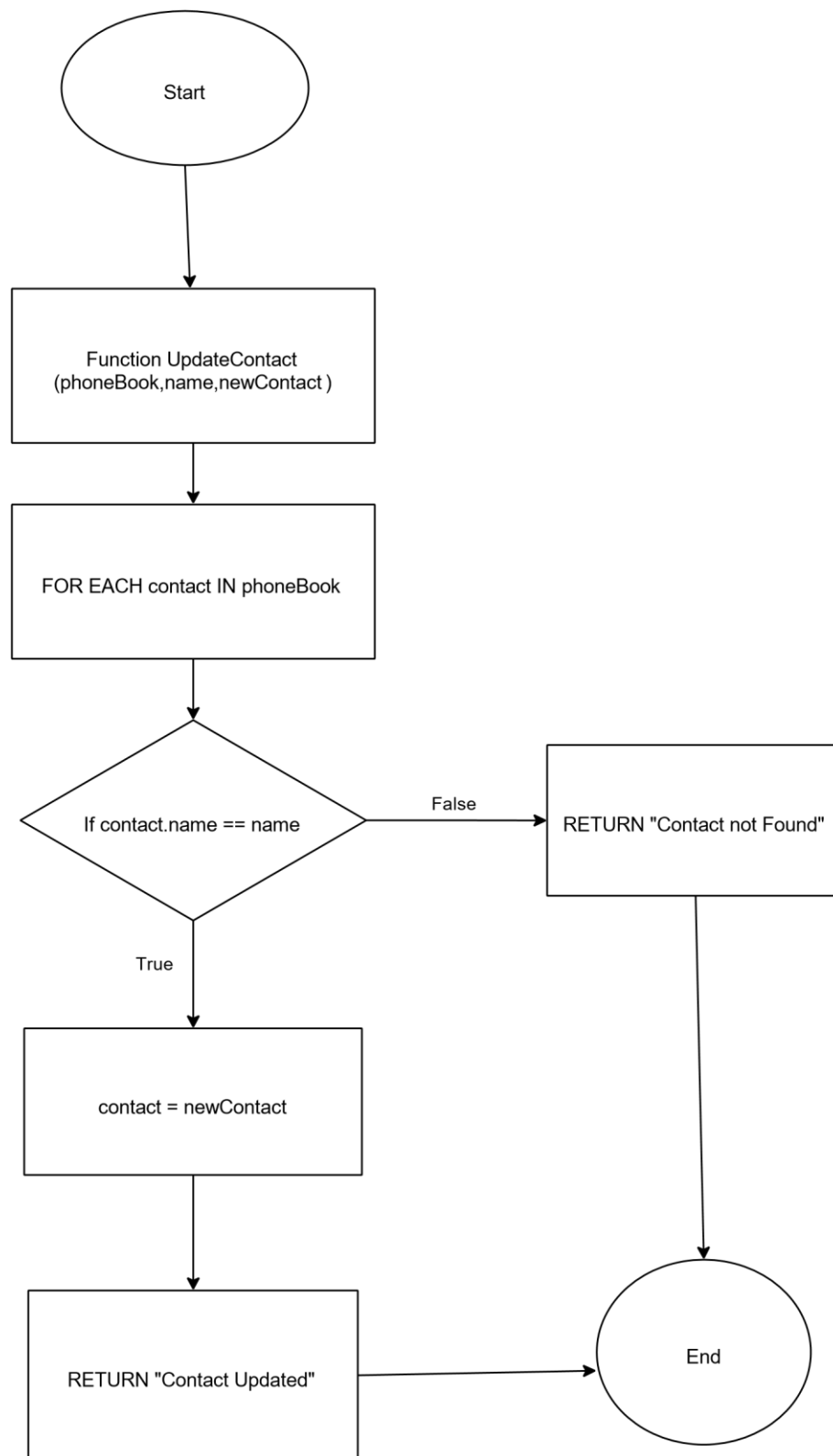
Pseudocode

```
 Start
      FUNCTION UpdateContact(phonebook, name, newContact)
          FOR EACH contact IN phonebook
             IF contact.name == name
                contact = newContact
RETURN "Contact updated"
             END IF
          END FOR
             RETURN "Contact not found"
      END FUNCTION
 End
```

Flowchart

```
                    ┌─────────────┐
                    │    Start    │
                    └─────────────┘
                           │
                           ▼
            ┌──────────────────────────────┐
            │   Function UpdateContact      │
            │ (phoneBook,name,newContact )  │
            └──────────────────────────────┘
                           │
                           ▼
            ┌──────────────────────────────┐
            │ FOR EACH contact IN phoneBook │
            └──────────────────────────────┘
                           │
                           ▼
                      ◇ If contact.name == name ◇ ──False──► ┌──────────────────────────┐
                           │                                  │ RETURN "Contact not Found"│
                         True                                 └──────────────────────────┘
                           │                                              │
                           ▼                                              │
            ┌──────────────────────────────┐                             │
            │     contact = newContact      │                             │
            └──────────────────────────────┘                             │
                           │                                              │
                           ▼                                              ▼
            ┌──────────────────────────────┐              ┌─────────────┐
            │   RETURN "Contact Updated"    │─────────────►│     End     │
            └──────────────────────────────┘              └─────────────┘
```

Codes

```java
private void cnUpdateActionPerformed(java.awt.event.ActionEvent evt) {

    String Id = txtId.getText();
    String firstName = txtfirstName.getText();
    String lastName = txtlastName.getText();
    String phoneNumber = txtphoneNumber.getText();

    // Database connection
    String url = "jdbc:mysql://localhost:3306/connector";
    String user = "root";
    String password = "6161586";

try (java.sql.Connection conn = DriverManager.getConnection(url, user, password)) {

    // SQL query to update the contact

    String sql = "UPDATE contact SET  firstName = ?, lastName = ?, phoneNumber = ? WHERE Id = ?";

    // Prepare the statement

    try (PreparedStatement pstmt = conn.prepareStatement(sql)) {
        pstmt.setString(1, firstName); // Set the first name
        pstmt.setString(2, lastName);   // Set the last name
        pstmt.setString(3, phoneNumber); // Set the phone number
        pstmt.setString(4, Id); // Set the ID for the WHERE clause

        // Execute the update

        int updatedRows = pstmt.executeUpdate();
        if (updatedRows > 0) {
            JOptionPane.showMessageDialog(this, "Contact updated successfully!");
        } else {
            JOptionPane.showMessageDialog(this, "No contact found with the given ID.");
        }
    }
} catch (SQLException ex) {
    ex.printStackTrace();

// Consider using a logging framework here
```

```
            JOptionPane.showMessageDialog(this, "Error updating contact: " + ex.getMessage());
        }
    }
```