Customer Java

package customerguiapp\_emo;

/\*\*

\*Name: Erica Osborn

\*Date: 12/07/2019

\* Description: Project #4: Create a customer management system GUI.

\*/

public class Customer {

private long userId;

private String emailAddress;

private String firstName;

private String lastName;

public Customer (String e, String f,String l) {

this.emailAddress = e;

this.firstName = f;

this.lastName = l;

}

public long getUserId() {

return userId;

}

public void setUserId(long userId) {

this.userId = userId;

}

public String getEmailAddress() {

return emailAddress;

}

public void setEmailAddress(String emailAddress) {

this.emailAddress = emailAddress;

}

public String getFirstName() {

return firstName;

}

public void setFirstName(String firstName) {

this.firstName = firstName;

}

public String getLastName() {

return lastName;

}

public void setLastName(String lastName) {

this.lastName = lastName;

}

}

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public class CustomerGUIApp {

public static void main(String[] args) {

// TODO code application logic here

CustomerManagerFrame frame = new CustomerManagerFrame();

}

}

package customerguiapp\_emo;

import java.sql.Connection;

import java.sql.PreparedStatement;

import java.sql.ResultSet;

import java.sql.SQLException;

import java.util.ArrayList;

import java.util.List;

/\*\*

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public class CustomerDB {

ArrayList ct = new ArrayList();

private static Customer getCustomerFromRow(ResultSet rs) throws SQLException {

long userId = rs.getUserId(1);

String emailAddress = rs.getEmailAddress(2);

String firstName = rs.getFirstName(3);

String lastName = rs.getLastName(4);

Customer c = new Customer();

c.setUserId(userId);

c.setEmailAddress(emailAddress);

c.setFirstName(firstName);

c.setLastName(lastName);

return c;

}

public static Customer get(String emailAddress) throws DBException {

String sql = "SELECT \* FROM Customer WHERE Email = ?";

Connection connection = CustomerDBUtil.getConnection();

try (PreparedStatement ps = connection.prepareStatement(sql)) {

ps.setString(1, emailAddress);

ResultSet rs = ps.executeQuery();

if (rs.next()) {

Customer c = getCustomerFromRow(rs);

rs.close();

return c;

} else {

rs.close();

return null;

}

} catch (SQLException e) {

throw new DBException(e);

}

}

public static void add(Customer ct) throws DBException {

String sql

= "INSERT INTO Customer (Email, First Name, LastName) "

+ "VALUES (?, ?, ?, ?)";

Connection connection = CustomerDBUtil.getConnection();

try (PreparedStatement ps = connection.prepareStatement(sql)) {

ps.setLong(1, ct.getUserId());

ps.setString(2, ct.getEmailAddress());

ps.setString(3, ct.getFirstName());

ps.setString(4, ct.getLastName());

ps.executeUpdate();

} catch (SQLException e) {

throw new DBException(e);

}

}

public static void update(Customer ct) throws DBException {

String sql = "UPDATE Customer SET "

+ "UserId = ?, "

+ "Email = ?, "

+ "First Name = ?"

+ "WHERE Last Name = ?";

Connection connection = CustomerDBUtil.getConnection();

try (PreparedStatement ps = connection.prepareStatement(sql)) {

ps.setString(1, ct.getUserId());

ps.setString(2, ct.getEmailAddress());

ps.setDouble(3, ct.getFirstName());

ps.setString(4, ct.getLastName());

ps.executeUpdate();

} catch (SQLException e) {

throw new DBException(e);

}

}

public static void delete(Customer ct)

throws DBException {

String sql = "DELETE FROM Customer "

+ "WHERE UserId = ?";

Connection connection = CustomerDBUtil.getConnection();

try (PreparedStatement ps = connection.prepareStatement(sql)) {

ps.setLong(1, ct.getUserId());

ps.executeUpdate();

} catch (SQLException e) {

throw new DBException(e);

}

}

}

}

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/\*

\* This is just a wrapper class so we can throw a common exception for

\* the UI to catch without tightly coupling the UI to the database layer.

\*/

public class DBException extends Exception {

DBException() {}

DBException(Exception e) {

super(e);

}

}

package customerguiapp\_emo;

import javax.swing.JFrame;

import javax.swing.JButton;

import javax.swing.JFileChooser;

import javax.swing.JFrame;

import javax.swing.JOptionPane;

import javax.swing.JPanel;

import javax.swing.UIManager;

import javax.swing.UnsupportedLookAndFeelException;

import java.awt.event.ActionListener;

import java.awt.BorderLayout;

import java.awt.FlowLayout;

/\*\*

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\*/

public class CustomerManagerFrame extends JFrame {

private JButton addButton;

private JButton editButton;

private JButton deleteButton;

public CustomerManagerFrame() {

try {

UIManager.setLookAndFeel(

UIManager.getSystemLookAndFeelClassName());

} catch (ClassNotFoundException | InstantiationException |

IllegalAccessException | UnsupportedLookAndFeelException e) {

System.out.println(e);

}

setTitle("Customer Manager");

setSize(800, 600);

setLocationByPlatform(true);

setDefaultCloseOperation(JFrame.EXIT\_ON\_CLOSE);

// TODO: Add the button pannel to the JFrame.

setVisible(true);

}

private JPanel buildButtonPanel() {

JPanel panel = new JPanel();

// TODO: Implement the rest of this method.

addButton =new JButton("Add");

addButton.addActionListener((ActionEvent) -> {

doAddButton();

});

editButton = new JButton("Edit");

editButton.addActionListener((ActionEvent) -> {

doEditButton();

});

deleteButton =new JButton("Delete");

deleteButton.addActionListener((ActionEvent) -> {

doAddButton();

});

panel.add(addButton);

panel.add(editButton);

panel.add(deleteButton);

panel.setLayout(new FlowLayout(FlowLayout.CENTER));

add(panel, BorderLayout.SOUTH);

addButton.setToolTipText("To add a customer.");

editButton.setToolTipText("To edit a customer.");

deleteButton.setToolTipText("To delete a customer.");

return panel;

}

private void doAddButton() {

JFileChooser openDialog = new JFileChooser();

int choice = openDialog.showOpenDialog(this);

if (choice == JFileChooser.APPROVE\_OPTION) {

file = openDialog.getSelectedFile();

fileContents = "";

try {

fileContents = new String(

Files.readAllBytes(Paths.get(file.toURI())));

} catch (IOException ex) {

JOptionPane.showMessageDialog(this,

"The file could not be read.", "File read error",

JOptionPane.ERROR\_MESSAGE);

}

// TODO: display file contents in JTextArea control instead of on console

System.out.println(fileContents);

}

}

private void doEditButton() {

if (file != null) {

// TODO: get file contents from JTextArea control instead of on console

try {

Files.write(Paths.get(file.toURI()), fileContents.getBytes());

System.out.println("The file was saved!");

} catch (IOException ex) {

JOptionPane.showMessageDialog(this,

"The file could not be written.", "File write error",

JOptionPane.ERROR\_MESSAGE);

}

// TODO: display file contents in JTextArea control instead of on console

System.out.println(fileContents);

}

private void doDeleteButton() {

if (file != null) {

// TODO: get file contents from JTextArea control instead of on console

try {

Files.write(Paths.get(file.toURI()), fileContents.getBytes());

System.out.println("The file was saved!");

} catch (IOException ex) {

JOptionPane.showMessageDialog(this,

"The file could not be written.", "File write error",

JOptionPane.ERROR\_MESSAGE);

}

// TODO: display file contents in JTextArea control instead of on console

System.out.println(fileContents);

}

}

}

}

package customerguiapp\_emo;

import java.sql.Connection;

import java.sql.DriverManager;

import java.sql.SQLException;

/\*\*

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public class CustomerDBUtil {

private static Connection connection;

private CustomerDBUtil() {}

public static synchronized Connection getConnection() throws DBException {

if (connection != null) {

return connection;

}

else {

try {

// set the db url, username, and password

String url = "jdbc:mysql://localhost:3306/mma";

String username = "mma\_user";

String password = "sesame";

// get and return connection

connection = DriverManager.getConnection(

url, username, password);

return connection;

} catch (SQLException e) {

throw new DBException(e);

}

}

}

public static synchronized void closeConnection() throws DBException {

if (connection != null) {

try {

connection.close();

} catch (SQLException e) {

throw new DBException(e);

} finally {

connection = null;

}

}

}

}