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## LAB 9

### Question:

- Implement the concept of Swing in your domain.

### Code:

```
import javax.swing.*;
import java.awt.*;
import java.awt.event.ActionEvent;
import java.awt.event.ActionListener;
import java.util.ArrayList;
import java.util.List;

class Book {
    private String title;
    private String author;
    private double price;

    public Book(String title, String author, double price) {
        this.title = title;
        this.author = author;
        this.price = price;
    }

    @Override
    public String toString() {
        return "Title: " + title + ", Author: " + author + ", Price: " + price;
    }
}

class BookstoreGUI extends JFrame {
    private List<Book> books;

    private JTextField titleField;
    private JTextField authorField;
    private JTextField priceField;
    private JTextArea displayArea;
```

```
public BookstoreGUI() {
    super("Bookstore Application");

    books = new ArrayList<>();

    setLayout(new FlowLayout());

    titleField = new JTextField(20);
    authorField = new JTextField(20);
    priceField = new JTextField(10);
    displayArea = new JTextArea(10, 30);
    displayArea.setEditable(false);

    JButton addButton = new JButton("Add Book");
    JButton displayButton = new JButton("Display Books");
    JButton exitButton = new JButton("Exit");

    addButton.addActionListener(new ActionListener() {
        @Override
        public void actionPerformed(ActionEvent e) {
            addBook();
        }
    });

    displayButton.addActionListener(new ActionListener() {
        @Override
        public void actionPerformed(ActionEvent e) {
            displayBooks();
        }
    });

    exitButton.addActionListener(new ActionListener() {
        @Override
        public void actionPerformed(ActionEvent e) {
            System.exit(0);
        }
    });
}
```

```
});

add(new JLabel("Title: "));
add(titleField);
add(new JLabel("Author: "));
add(authorField);
add(new JLabel("Price: "));
add(priceField);
add(addButton);
add(displayButton);
add(exitButton);
add(new JScrollPane(displayArea));

setSize(800, 300);
setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
setLocationRelativeTo(null);
setVisible(true);
}

private void addBook() {
    String title = titleField.getText();
    String author = authorField.getText();
    double price = Double.parseDouble(priceField.getText());

    Book newBook = new Book(title, author, price);
    books.add(newBook);

    titleField.setText("");
    authorField.setText("");
    priceField.setText("");

    JOptionPane.showMessageDialog(this, "Book added successfully!");
}

private void displayBooks() {
    displayArea.setText("");
    if (books.isEmpty()) {
```

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```
        displayArea.setText("No books available.");
    } else {
        for (Book book : books) {
            displayArea.append(book.toString() + "\n");
        }
    }
}

public class Lab9 {
    public static void main(String[] args) {
        SwingUtilities.invokeLater(new Runnable() {
            @Override
            public void run() {
                new BookstoreGUI();
            }
        });
    }
}
```

**Screenshot:**

