Question 6

Write a Java program using swing component. Design a frame to accept a book id, book code, book name and price. Calculate the discount based on the following conditions:

Book Code	Discount
A	15%
B	20%
C	25%

Any other is 5%.

Calculate the discount and display the bill.

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

public class BookStoreGUI extends JFrame implements ActionListener {
    private JLabel labelId, labelCode, labelName, labelPrice, labelDiscount, labelTotal;
    private JTextField textFieldId, textFieldCode, textFieldName, textFieldPrice;
    private JButton calculateButton;

    public BookStoreGUI() { //constructor function
        setTitle("Bookstore Billing System");
        setSize(600, 500);
        setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
        setLayout(new GridLayout(6, 2, 10, 10));

        labelId = new JLabel("Enter Book ID:");
        labelCode = new JLabel("Enter Book Code (A, B, C):");
        labelName = new JLabel("Enter Book Name:");
        labelPrice = new JLabel("Enter Book Price:");
        labelDiscount = new JLabel("Discount:");
        labelTotal = new JLabel("Total Bill:");
```

```
        textFieldId = new JTextField();
        textFieldCode = new JTextField();
        textFieldName = new JTextField();
        textFieldPrice = new JTextField();

        calculateButton = new JButton("Calculate");
        calculateButton.addActionListener(this);

        add(labelId);
        add(textFieldId);
        add(labelCode);
        add(textFieldCode);
        add(labelName);
        add(textFieldName);
        add(labelPrice);
        add(textFieldPrice);
        add(calculateButton);
        add(labelDiscount);
        add(labelTotal);

        setVisible(true);
    }

    public void actionPerformed(ActionEvent e) {
        if (e.getSource() == calculateButton) {
            double price = Double.parseDouble(textFieldPrice.getText());
            double discount = 0.0;

            String bookCode = textFieldCode.getText().toUpperCase();

            switch (bookCode) {
                case "A": discount = 0.15;
                        break;

                case "B": discount = 0.20;
                        break;

                case "C": discount = 0.25;
                        break;

                default : discount = 0.05;
            }

            double calculatedDiscount = price * discount;
            double totalBill = price - calculatedDiscount;
            labelDiscount.setText("Discount: " + (discount * 100) + "%");
            labelTotal.setText("Total Bill: $" + totalBill);
        }
    }

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

```
        SwingUtilities.invokeLater(() -> new BookStoreGUI());
    }
}
```

Output: