

Cafe Billing System

Java Mini Project
Sem 3

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C2 Batch
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Topic:

To create a system for a cafe that takes input of the order and then generates the bill once the order is confirmed.

Code:

```
import javax.swing.*;
import javax.swing.border.EmptyBorder;
import java.awt.*;
import java.awt.event.*;
import java.sql.*;
import java.util.Objects;

public class Bill {
    public static void main(String[] args) {
        MyFrame frame = new MyFrame();
    }
}

class MyFrame extends JFrame implements ActionListener {
    JLabel label1, label2;
    JTextField t1, t2;
    JTextPane screen1, screen2;
    JButton add, generate;
    Font font = new Font(Font.SANS_SERIF, Font.ITALIC, 16);
    Font font2 = new Font(Font.SANS_SERIF, Font.BOLD, 25);

    MyFrame()
    {
        setTitle("ORDER HERE");
        setSize(700, 500);
        setDefaultCloseOperation(EXIT_ON_CLOSE);

        Container c = getContentPane();
        c.setLayout(null);

        // Dish label
        label1 = new JLabel("Dish");
        label1.setBounds(62, 30, 100, 25);
        c.add(label1);

        // Dish input box
        t1 = new JTextField();
        t1.setBounds(120, 30, 150, 25);
        c.add(t1);

        // Quantity label
        label2 = new JLabel("Quantity");
        label2.setBounds(40, 80, 100, 25);
        c.add(label2);
    }
}
```

```

// Quantity inputbox
t2 = new JTextField();
t2.setBounds(120, 80, 150, 25);
c.add(t2);

// add button
add = new JButton("Add to order");
add.setBounds(40, 300, 170, 25);
add.setForeground(Color.BLUE);
c.add(add);
add.addActionListener(this);

// Generate button
generate = new JButton("Generate Bill");
generate.setBounds(40, 350, 170, 25);
c.add(generate);
generate.addActionListener(this);

// display of form details
screen1 = new JTextPane();
screen1.setBounds(40, 130, 270, 75);
screen1.setBorder(new EmptyBorder(5, 10, 5, 10));
screen1.setFont(font);
screen1.setText("Enter your order above...");
screen1.setEditable(false);
c.add(screen1);

// display of menu
screen2 = new JTextPane();
screen2.setBounds(350, 30, 300, 375);
screen2.setBorder(new EmptyBorder(70, 30, 10, 10));
screen2.setBackground(Color.orange);
screen2.setForeground(Color.DARK_GRAY);
screen2.setFont(font2);
screen2.setEditable(false);
c.add(screen2);
screen2.setText("""
***** MENU *****
Pizza - $7.0
Burger - $6.0
Fries - $4.0
Sandwich - $5.0
Coffee - $3.2
Tea - $3.0
Soft Drink - $3.5
*****""");

c.setBackground(Color.orange);
setVisible(true);
}

```

```

public void actionPerformed(ActionEvent e)
{
    String url = "jdbc:mysql://localhost:3306/cafe";
    String username = "root";
    String password = "aryahi2007"; //user dependant

    try {
        Connection connection = DriverManager.getConnection(url, username, password);

        if (e.getSource() == add)
        {
            String order = t1.getText();
            String quant = t2.getText();

            String sqlchk = "select dish from menu";
            Statement check = connection.createStatement();
            ResultSet result = check.executeQuery(sqlchk);

            int checker = 0;
            while(result.next())
            {
                if(Objects.equals(order, result.getString("dish"))) {
                    checker = 1;
                }
            }

            if(checker == 1)
            {
                screen1.setText("Added to order:\n" + order + " " + quant );
                int quantity = Integer.parseInt(quant);

                String sql = "Insert into ordered (Dish, quantity) values (?,?)";
                PreparedStatement statement = connection.prepareStatement(sql);
                statement.setString(1, order);
                statement.setInt(2, quantity);

                statement.executeUpdate();
                statement.close();
            }
            else
            {
                screen1.setText("Please enter from the menu...");
            }
        }

        else if (e.getSource() == generate)
        {
            String sql2 = "select ordered.dish, ordered.quantity, ordered.quantity*menu.Cost as cost\n"
                + "from ordered,menu\n"
                + "where ordered.dish=menu.dish";
            Statement statement2 = connection.createStatement();
            ResultSet result1 = statement2.executeQuery(sql2);

            int count = 0;
            float totalPrice = 0;
            StringBuilder billstr = new StringBuilder();
            while(result1.next())
            {
                String meal2 = result1.getString("dish");
                int quantity2 = result1.getInt("quantity");
                float cost = result1.getFloat("cost");
                totalPrice += result1.getFloat("cost");
                count++;
                billstr.append(count).append(" ").append(meal2).append(" ").append(quantity2).append(" -
$").append(cost).append("\n");
            }
        }
    }
}

```

```

        setVisible(false);
        MyFrame2 frame2 = new MyFrame2();
        frame2.screen3.setText("\n" + billstr + "\nTotal Amount: $" + totalPrice);

        String sql4 = "Truncate table ordered";
        Statement statement4 = connection.createStatement();
        statement4.execute(sql4);
    }

    connection.close();

} catch (SQLException e2) {
    System.out.println("Error!");
    e2.printStackTrace();
}
}
}

```

```

class MyFrame2 extends JFrame {
    JTextPane screen3;
    JLabel label2;
    Font font = new Font(Font.SERIF, Font.BOLD, 75);
    Font font2 = new Font(Font.MONOSPACED, Font.PLAIN, 22);

    MyFrame2()
    {
        setTitle("Bill To Pay");
        setSize(500, 700);
        setDefaultCloseOperation(EXIT_ON_CLOSE);

        Container c2 = getContentPane();
        c2.setLayout(null);

        // header
        label2 = new JLabel("BILL", JLabel.CENTER);
        label2.setBounds(50, 50, 400, 75);
        label2.setFont(font);
        label2.setForeground(Color.white);
        c2.add(label2);

        // display of bill
        screen3 = new JTextPane();
        screen3.setBounds(45, 120, 400, 525);
        screen3.setBorder(new EmptyBorder(10, 30, 10, 30));
        screen3.setBackground(Color.pink);
        screen3.setForeground(Color.DARK_GRAY);
        screen3.setFont(font2);
        screen3.setEditable(false);
        c2.add(screen3);

        c2.setBackground(Color.pink);
        setVisible(true);
    }
}

```

Output:

Window 1, for ordering:

ORDER HERE

Dish

Quantity

Enter your order above...

Add to order

Generate Bill

***** MENU *****

Pizza – \$7.0

Burger – \$6.0

Fries – \$4.0

Sandwich – \$5.0

Coffee – \$3.2

Tea – \$3.0

Soft Drink – \$3.5

ORDER HERE

Dish

Quantity

Added to order:
Pizza 4

Add to order

Generate Bill

***** MENU *****

Pizza – \$7.0

Burger – \$6.0

Fries – \$4.0

Sandwich – \$5.0

Coffee – \$3.2

Tea – \$3.0

Soft Drink – \$3.5

ORDER HERE

Dish

Burger

Quantity

3

Added to order:
Burger 3

Add to order

Generate Bill

***** MENU *****

Pizza – \$7.0

Burger – \$6.0

Fries – \$4.0

Sandwich – \$5.0

Coffee – \$3.2

Tea – \$3.0

Soft Drink – \$3.5

Incorrect input gives an error:

ORDER HERE

Dish

Cake

Quantity

1

Please enter from the menu...

Add to order

Generate Bill

***** MENU *****

Pizza – \$7.0

Burger – \$6.0

Fries – \$4.0

Sandwich – \$5.0

Coffee – \$3.2

Tea – \$3.0

Soft Drink – \$3.5

ORDER HERE

Dish

Soft Drink

Quantity

4

Added to order:
Soft Drink 4

Add to order

Generate Bill

***** MENU *****

Pizza – \$7.0

Burger – \$6.0

Fries – \$4.0

Sandwich – \$5.0

Coffee – \$3.2

Tea – \$3.0

Soft Drink – \$3.5

Window 2, displaying the bill:



Script for creating database:

```
create database cafe;  
connect cafe;
```

```
create table menu (  
Dish varchar(20) primary KEY,  
Cost float  
);
```

```
create table ordered (  
sr int not null auto_increment primary key,  
Dish varchar(20),  
quantity int  
);
```

```
Alter table ordered  
Add Constraint menu_order_fk FOREIGN KEY (Dish) REFERENCES menu(dish);
```

```
insert into menu values  
( 'Sandwich',5.0),  
( 'Coffee',3.2),  
( 'Fries',4.0),  
( 'Pizza',7.0),  
( 'Burger',6.0),  
( 'Tea',3.0),  
( 'Soft Drink',3.5);
```