

INTERNSHIP AT SKILL-LYNC



A PROJECT REPORT

“CAFÉ MANAGEMENT SYSTEM”

SUBMITTED BY

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INTRODUCTION

Cafe Management system is simple application includes display available menu in cafe, calculating total bill amount of a customer. Here you can select an item from the list and the user can enter a total quantity of selected item. After this, the system displays the total amount and you can get a receipt for your bill with reference number, time and date.

Cafe Management System is a simple application using JFrame .

This whole system is built using Java programming language with the help of Apache NetBeans IDE 16.

OBJECTIVE

The objective of my project is to reduce the paper work of user to calculate the bill for the cakes and drinks he buy. It calculates the bill, this includes the Tax, Service charge. It show's the cost of drinks and cost of cakes separately.

1. Makes the calculations easy.
2. Instant receipt.
3. You can reset everything by clicking reset button.
4. You even have exit button to end the application.

JFRAME

JFrame is a top-level container that provides a window on the screen. A frame is actually a base window on which other components rely, namely the menu bar, panels, labels, text fields, buttons, etc. Almost every other Swing application starts with the JFrame window.

The purpose of JFrame : The Java Swing JFrame class is the foundation for creating graphical Java applications. Without the frame, you can't perform any interactions. When you create a new instance of the JFrame, you can pass a title to the constructor or simply create an empty frame.

How do JFrames work?

JFrame works like the main window where components like labels, buttons, text fields are added to create a GUI. Unlike Frame, JFrame has the option to hide or close the window with the help of `setDefaultCloseOperation(int)` method.

What is a JFrame layout?

BorderLayout is the default layout for the window objects such as JFrame, JWindow, JDialog, JInternalFrame etc. BorderLayout arranges the components in the five regions. Four sides are referred to as north, south, east, and west.

HARDWARE REQUIREMENTS

- ❖ **Processor** – Intel core I3 and above
- ❖ **RAM** – 4GB or Above
- ❖ **Hard Disk** – 50GB or Above
- ❖ **Input Device** – Keyboard, Mouse
- ❖ **Output Device** – Monitor or Laptop

SOFTWARE REQUIREMENTS

- ❖ **Platforms** – Windows XP through Windows 10 and Linux.
- ❖ **Application Tools** – Apache NetBeans IDE 16.

PROJECT

NAME : CAFÉ MANAGEMENT SYSTEM Technologies used :

- JFrame
- Java
- GUI

DESIGN

CAFE MANAGEMENT SYSTEMS			
<input type="checkbox"/> Cappuccino	<input type="text" value="0"/>	<input type="checkbox"/> Coffe Cake	<input type="text" value="0"/>
<input type="checkbox"/> Ice Cappuccino	<input type="text" value="0"/>	<input type="checkbox"/> Red Velvet Cake	<input type="text" value="0"/>
<input type="checkbox"/> Espresso	<input type="text" value="0"/>	<input type="checkbox"/> Boston Cream Pie	<input type="text" value="0"/>
<input type="checkbox"/> Iced Latte	<input type="text" value="0"/>	<input type="checkbox"/> Black Forest Cake	<input type="text" value="0"/>
<input type="checkbox"/> Latte	<input type="text" value="0"/>	<input type="checkbox"/> Lagos Chocolate Cake	<input type="text" value="0"/>
		<input type="checkbox"/> Kill Burn Choco Cake	<input type="text" value="0"/>
		<input type="checkbox"/> Carlton Hill Choco Cake	<input type="text" value="0"/>
		<input type="checkbox"/> Queen's Park Choco Cake	<input type="text" value="0"/>
Cost of Drinks	<input type="text" value="0"/>	Tax	<input type="text" value="0"/>
Cost of Cakes	<input type="text" value="0"/>	Sub Total	<input type="text" value="0"/>
Service Charge	<input type="text" value="30"/>	Total	<input type="text" value="0"/>

Total Receipt Reset Exit

CALCULATION

CAFE MANAGEMENT SYSTEMS			
<input checked="" type="checkbox"/> Cappuccino	<input type="text" value="1"/>	<input checked="" type="checkbox"/> Coffe Cake	<input type="text" value="1"/>
<input checked="" type="checkbox"/> Ice Cappuccino	<input type="text" value="2"/>	<input checked="" type="checkbox"/> Red Velvet Cake	<input type="text" value="1"/>
<input checked="" type="checkbox"/> Espresso	<input type="text" value="1"/>	<input checked="" type="checkbox"/> Boston Cream Pie	<input type="text" value="1"/>
<input checked="" type="checkbox"/> Iced Latte	<input type="text" value="1"/>	<input checked="" type="checkbox"/> Black Forest Cake	<input type="text" value="1"/>
<input checked="" type="checkbox"/> Latte	<input type="text" value="2"/>	<input checked="" type="checkbox"/> Lagos Chocolate Cake	<input type="text" value="1"/>
		<input checked="" type="checkbox"/> Kill Burn Choco Cake	<input type="text" value="1"/>
		<input checked="" type="checkbox"/> Carlton Hill Choco Cake	<input type="text" value="1"/>
		<input checked="" type="checkbox"/> Queen's Park Choco Cake	<input type="text" value="1"/>
Cost of Drinks	<input type="text" value="688.00"/>	Tax	<input type="text" value="0"/>
Cost of Cakes	<input type="text" value="1070.00"/>	Sub Total	<input type="text" value="0"/>
Service Charge	<input type="text" value="30"/>	Total	<input type="text" value="0"/>

Total Receipt Reset Exit

- Here giving quantity and clicking the check box, it will give the cost of drinks and cost of cakes

CAFE MANAGEMENT SYSTEMS

<input checked="" type="checkbox"/> Cappuccino <input style="width: 50px;" type="text" value="1"/> <input checked="" type="checkbox"/> Ice Cappuccino <input style="width: 50px;" type="text" value="2"/> <input checked="" type="checkbox"/> Espresso <input style="width: 50px;" type="text" value="1"/> <input checked="" type="checkbox"/> Iced Latte <input style="width: 50px;" type="text" value="1"/> <input checked="" type="checkbox"/> Latte <input style="width: 50px;" type="text" value="2"/>	<input checked="" type="checkbox"/> Coffe Cake <input style="width: 50px;" type="text" value="1"/> <input checked="" type="checkbox"/> Red Velvet Cake <input style="width: 50px;" type="text" value="1"/> <input checked="" type="checkbox"/> Boston Cream Pie <input style="width: 50px;" type="text" value="1"/> <input checked="" type="checkbox"/> Black Forest Cake <input style="width: 50px;" type="text" value="1"/> <input checked="" type="checkbox"/> Lagos Chocolate Cake <input style="width: 50px;" type="text" value="1"/> <input checked="" type="checkbox"/> Kill Burn Choco Cake <input style="width: 50px;" type="text" value="1"/> <input checked="" type="checkbox"/> Carlton Hill Choco Cake <input style="width: 50px;" type="text" value="1"/> <input checked="" type="checkbox"/> Queen's Park Choco Cake <input style="width: 50px;" type="text" value="1"/>	
Cost of Drinks <input style="width: 50px;" type="text" value="Rs 688.00"/> Cost of Cakes <input style="width: 50px;" type="text" value="Rs 1070.00"/> Service Charge <input style="width: 50px;" type="text" value="Rs 30.00"/>	Tax <input style="width: 50px;" type="text" value="Rs 17.88"/> Sub Total <input style="width: 50px;" type="text" value="Rs 1788.00"/> Total <input style="width: 50px;" type="text" value="Rs 1805.88"/>	<div style="border: 1px solid black; height: 150px; width: 100%;"></div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <input style="border: 2px solid red;" type="button" value="Total"/> <input type="button" value="Receipt"/> <input type="button" value="Reset"/> <input type="button" value="Exit"/> </div>

- When you click on the total button it will calculate the Tax, Sub Total and Total as shown in above figure.

CAFE MANAGEMENT SYSTEMS

<input checked="" type="checkbox"/> Cappuccino <input style="width: 50px;" type="text" value="1"/> <input checked="" type="checkbox"/> Ice Cappuccino <input style="width: 50px;" type="text" value="2"/> <input checked="" type="checkbox"/> Espresso <input style="width: 50px;" type="text" value="1"/> <input checked="" type="checkbox"/> Iced Latte <input style="width: 50px;" type="text" value="1"/> <input checked="" type="checkbox"/> Latte <input style="width: 50px;" type="text" value="2"/>	<input checked="" type="checkbox"/> Coffe Cake <input style="width: 50px;" type="text" value="1"/> <input checked="" type="checkbox"/> Red Velvet Cake <input style="width: 50px;" type="text" value="1"/> <input checked="" type="checkbox"/> Boston Cream Pie <input style="width: 50px;" type="text" value="1"/> <input checked="" type="checkbox"/> Black Forest Cake <input style="width: 50px;" type="text" value="1"/> <input checked="" type="checkbox"/> Lagos Chocolate Cake <input style="width: 50px;" type="text" value="1"/> <input checked="" type="checkbox"/> Kill Burn Choco Cake <input style="width: 50px;" type="text" value="1"/> <input checked="" type="checkbox"/> Carlton Hill Choco Cake <input style="width: 50px;" type="text" value="1"/> <input checked="" type="checkbox"/> Queen's Park Choco Cake <input style="width: 50px;" type="text" value="1"/>	<div style="border: 2px solid red; padding: 5px;"> <p style="text-align: center;">Cafe Management System</p> <p>Reference: 1925</p> <hr/> <p>Cappuccino: 1.0 Iced Cappuccino: 2.0 Espresso: 1.0 Iced Latte: 1.0 Latte: 2.0</p> <hr/> <p>Coffe Cake: 1.0 Red Velvet Cake: 1.0 Boston Cream Pie: 1.0 Black Forest Cake: 1.0 Lagos Chocolate Cake: 1.0 Killburn Chocolate Cake: 1.0 Carltonhill Chocolate Cake: 1.0 Queen's Park Chocolate Cake: 1.0</p> <hr/> <p>Tax: Rs 17.88 Sub Total: Rs 1788.00 Total: Rs 1805.88</p> </div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <input type="button" value="Total"/> <input style="border: 2px solid red;" type="button" value="Receipt"/> <input type="button" value="Reset"/> <input type="button" value="Exit"/> </div>
Cost of Drinks <input style="width: 50px;" type="text" value="Rs 688.00"/> Cost of Cakes <input style="width: 50px;" type="text" value="Rs 1070.00"/> Service Charge <input style="width: 50px;" type="text" value="Rs 30.00"/>	Tax <input style="width: 50px;" type="text" value="Rs 17.88"/> Sub Total <input style="width: 50px;" type="text" value="Rs 1788.00"/> Total <input style="width: 50px;" type="text" value="Rs 1805.88"/>	

- When you click on the receipt button it will print the bill as shown in figure.
- When you click reset button everything will be set to zero.

TECHNICAL DETAIL'S

The `javax.swing.JFrame` class is a type of container which inherits the `java.awt.Frame` class. `JFrame` works like the main window where components like labels, buttons, textfields are added to create a GUI.

Unlike `Frame`, `JFrame` has the option to hide or close the window with the help of `setDefaultCloseOperation(int)` method.

OTHER FEATURES

- Display Menu Card of cafe.
- Select item and its quantity.
- Calculate total bill.
- Receipt.
- Reset
- Exit

CODING BEST PRACTICES USED

- DRY (Do Not Repeat Yourself)
- Clean Readable and Organized code
- Comments describing functions and code blocks
- Re-used code as much as possible

FUTURE WORK

- Login interface
- Adding color
- Adding more items to menu
- Simple calculator for reference to know the calculations are correct.