Develop a Tip Calculator Application For Restaurants

INTRODUCTION

College	:-	Vivekananda Global University Jaipur
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Submitted BY :-

Pankaj Sharma (24CSA3BC076)

Nitya Chaudhary(24CSA3BC079)

Praveen Saini(24CSA3BC015)

Parv Khandelwal(24CSA3BC095)

Aarti Patil (24CSA3BC047)
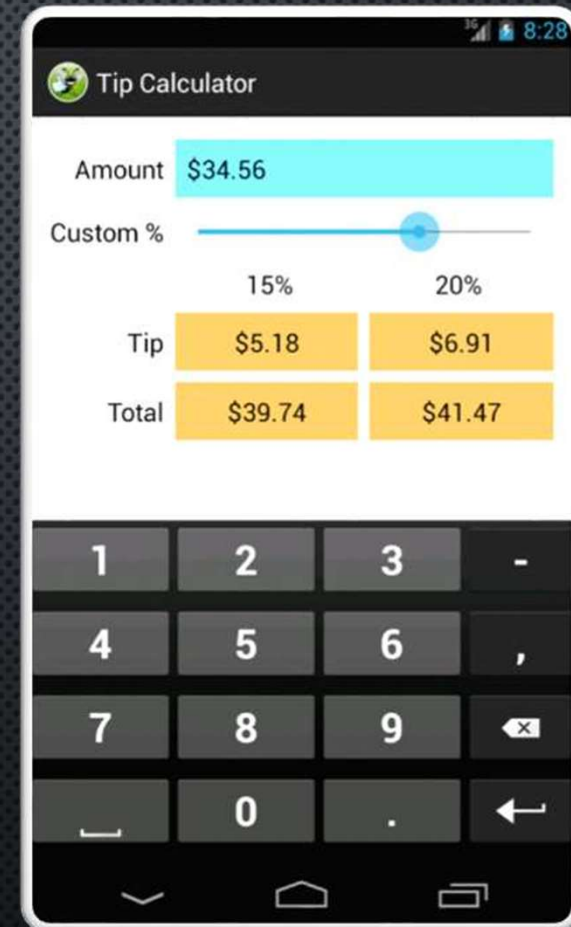
Faculty Name :
Mr. Narayan Vyas

INTRODUCTION AND OVERVIEW

In the fast-paced world of the restaurant industry, efficiency and accuracy are key to providing an exceptional dining experience. One critical aspect of this is the tipping process, which can often be time-consuming and confusing for both customers and staff.

This presentation introduces the **Tip Calculator Application for Restaurants**, a simple yet powerful tool designed to streamline the tipping process. The goal of the application is to make it easier for customers to calculate tips based on the bill total, while also offering various customizable features like preset tip percentages and the option to split the bill among multiple people.

By automating this process, the Tip Calculator Application not only saves time but also reduces human error, ensuring fair and consistent tipping practices across the board.

Let's explore the features, functionality, and potential benefits of this application for restaurants and their patrons.

Importance of a Tip Calculator Application

➢ **Time-Saving for Customers:**
Quickly calculate the appropriate tip based on the bill amount without manual math.
Reduces the time spent on figuring out the tip, allowing customers to focus on enjoying their experience.

➢ **Accuracy and Consistency:**
Eliminates human error in calculating tips, ensuring the correct amount is always given.
Provides consistency in tip percentages, reducing confusion for both customers and waitstaff.
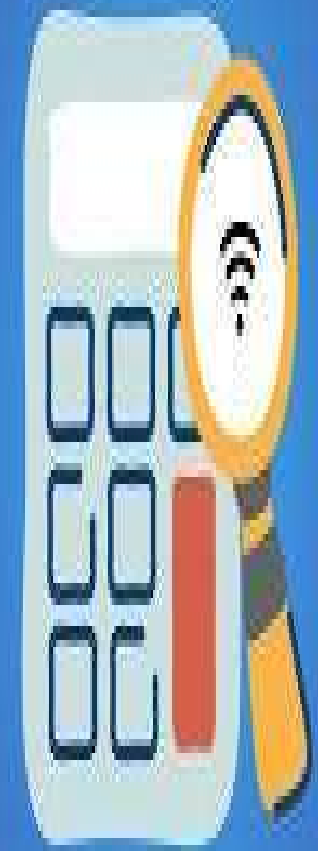
➢ **ustomizable Tip Percentages:**
Allows customers to choose preset tip percentages (e.g., 10%, 15%, 20%) for convenience.
Enables flexibility to adjust tips based on service quality.

Types :

1   **Basic Tip Calculator**

2   **Customizable Tip Calculator**

3   **Bill Splitting Tip Calculator**

4   **Dynamic Tip Calculator**

Advantages :

❖ **Increased Efficiency:**

Speeds up the tipping process by automating calculations, reducing the time spent by both customers and waitstaff. Ensures quicker checkouts, allowing for better table turnover in busy restaurants

❖ **Error-Free Calculations:**

Eliminates human errors in calculating tips, ensuring customers pay the correct amount. Reduces disputes or confusion over tip amounts, fostering smoother transactions

❖ **Helps with Group Dining:**

Simplifies the process of splitting bills and tips in group settings, ensuring everyone contributes fairly. Reduces conflicts or misunderstandings when multiple people are involved in paying.
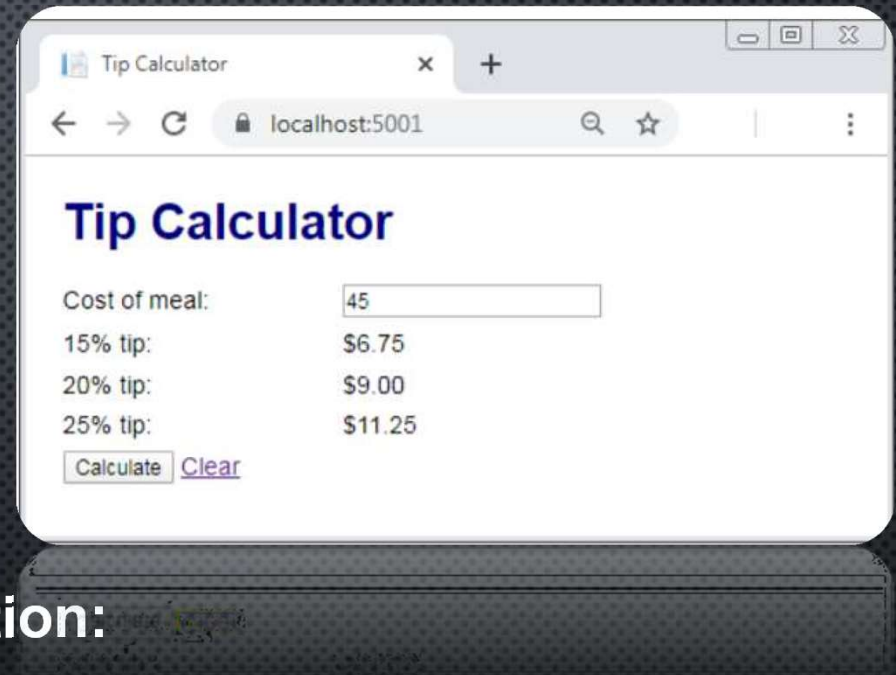
KEY-POINTS

1 **Efficiency & Time-Saving:**

2 **Accuracy & Consistency:**

3 **Enhanced Customer Satisfaction:**

Code :

```java
import java.util.Scanner;

public class TipCalculator {
    public static void main(String[] args) {
        // Create a Scanner object to read user input
        Scanner scanner = new Scanner(System.in);

        // Prompt the user to enter the bill total
        System.out.print("Enter the total bill amount: $");
        double billAmount = scanner.nextDouble();

        // Prompt the user to enter the tip percentage
        System.out.print("Enter the tip percentage: ");
        double tipPercentage = scanner.nextDouble();

        // Calculate the tip amount
        double tipAmount = (billAmount * tipPercentage) / 100;

        // Calculate the total amount including tip
        double totalAmount = billAmount + tipAmount;

        // Display the calculated tip and total amount
        System.out.printf("The tip amount is: $%.2f%n", tipAmount);
        System.out.printf("The total amount (bill + tip) is: $%.2f%n", totalAmount);

        // Close the scanner to avoid memory leak
        scanner.close();
    }
}
```

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➢ **Output :**

```
Enter the total bill amount:
$100.0
Enter the tip percentage: 15.0
The tip amount is:      $15.00
The total amount (bill + tip)
is: $115.00
```

Conclusion:-

➢ In conclusion, the Tip Calculator Application for Restaurants offers significant benefits for both customers and restaurant staff, enhancing the overall dining experience. By automating and simplifying the tip calculation process, it saves time, ensures accuracy, and fosters transparency. It also accommodates a wide range of preferences, from customizable tip percentages to easy bill splitting for group dining.

➢ The application not only boosts customer satisfaction by providing a hassle-free and consistent tipping experience, but it also helps improve operational efficiency and financial tracking for the restaurant. Additionally, it reduces the burden on waitstaff and promotes fair tipping practices, which can motivate better service.

➢ Ultimately, implementing a Tip Calculator Application is a win-win solution for restaurants looking to improve customer experience, streamline operations, and ensure a smoother, more efficient dining environment.

THANK YOU