



# Canteen Billing System

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**Abstract:** The online Canteen Billing System helps the users to book their food earlier. As soon as they book their food the order will be sent to the chef for preparing it .In the existing system it involves the paper work of the billing system and maintaining of the files too. In our project, payment is prior and the menu will be available for the user. The users will have to log in with the user name and the password through which they can book. This brings all necessities in one place that benefits both the user and the canteen owner smartly. The canteen billing system can provide service to the user by reducing the waiting time and by calculating the prices in a matter of a second. Hand billing or billing through a cash register takes times and serving more number of customers in less time becomes impossibility. In case of both the retail stores and QSR's, managing customers and billing during the peak hours becomes difficult. Canteen billing system can solve many problems that manage retail efficiently. Retailers and quick service restaurant owners need to take lots of features into consideration in order to make ordering and paying system to be carried out in an efficient manner. An automated and intuitive billing solution makes things easier.

## I. INTRODUCTION

**Canteen Billing System** is a windows application designed to help users to maintain and organize Canteen. Our application is easy to use for both beginning and advanced users. It features a familiar and an attractive user interface combined with strong searching, insertion and deletion capabilities. It can generate a membership card for members of the Canteen.

Canteen billing system is the system where all the aspects related to the proper management of canteen is done. These aspects involve managing information about the various products, staff, managers, customers, billing etc. This system provides an efficient way of managing the canteen information. Also allows the customer to purchase and pay for the items purchased.

## II. SYSTEM STUDY

### 2.1 EXISTING SYSTEM

The current system operates manual canteen billing system from food items, ordering and buying etc. recorded in a book. This is faced with errors, incompleteness, and insufficient data for analysis. Information regarding stocks, food item sold and bought is still in black and white which is not properly organized and managed. From the wholesalers to retailer bills, receipts of products are recorded in a book but further operations are not being properly handled. As a result it is difficult in processing, updating and managing.

### 2.2 PROPOSED SYSTEM

To reduce the shortcomings of the existing system there is a need to develop a new system that could upgrade the status of the current system which is manual and slow to the system that will be automatic and fast. The new system be concerned with offering the requirements of the customer and the workers, the system should be reliable, easier, fast, and more informative.

This System is a high standard program that can weather the storm of technology advancement, it is most needed in all canteens and it is an antidote for poor business speed and transaction with record keeping and maintenance, it will be very helpful to clients and customers. All it needs is a computer literate operative to make it work; it is stand alone and automated. The product will need software if the user is willing to make print out and bills due to its restrictions.

## III.SOFTWARE REQUIREMENTS

Java is a **programming language** and a **platform**. Java is a high level, robust, object-oriented and secure programming language. Any hardware or software environment in which a program runs is known as a platform. Since, Java has a runtime environment JRE and API, it is called a platform.



### 3.3 Java Application:

There are many devices where Java is currently used. Some of them are as follows:

1. Desktop Applications such as acrobat reader, media player, antivirus, etc.
2. Web Applications such as irctc.co.in, javatpoint.com, etc.
3. Enterprise Applications such as banking applications.
4. Mobile
5. Embedded System
6. Smart Card
7. Robotics
8. Games, etc.

### 3.4 My SQL:

MySQL is currently the most popular database management system software used for managing the relational database. It is open-source database software, which is supported by Oracle Company. It is fast, scalable and easy to use database management system in comparison with Microsoft SQL Server and Oracle Database. It is commonly used in conjunction with PHP scripts for creating powerful and dynamic server-side or web-based enterprise applications.

Many small and big companies use MySQL. MySQL supports many Operating Systems like Windows, Linux, MacOS, etc. with C, C++, and Java languages.

MySQL is Relational Database Management System (RDBMS) software that provides many things, which are as follows:

- It allows us to implement the database operations on tables, rows, columns, and indexes.
- It defines the database relationship in the form of tables (collection of rows and columns), also known as relations.
- It provides the Referential Integrity between rows or columns of various tables.
- It allows us to updates the table indexes automatically.
- It uses many SQL queries and combines useful information from multiple tables for the end-users.

### XAMPP:

XAMPP is software distribution which provides the Apache web server, MySQL database (actually MariaDB), Php and Perl (as command-line executables and Apache modules) all in one package. It is available for Windows, MAC and Linux systems. No configuration is necessary to integrate Php with MySQL. PhpMyadmin gives a GUI tool

for managing your MySQL databases. It is highly recommended for installing this for Windows or MAC.

The program may be maintained on the ground that the system requires an upgrade. When there is a new field to be added or a new form to be added in other to serve users well. Though it is compiled as standalone software the database can be tempered with but it's advisable that the admin put a password on the file to secure the database from intrusion.

## IV. DESIGN PROCESS

The system design process is an exercise of specifying how, the system will work. It is an interactive process which is faced on what the system will be do as shown in the report. Mainly following two parts have been included in the system design process:

### 1. Input design

The starting point of the design process is the proper knowledge of system requirements which will manually be converted on terms of output.

### 2. Output design

Once the output requirements have been finalized the next step in to find out what data need to be made available to the system to procedure the desired outputs.

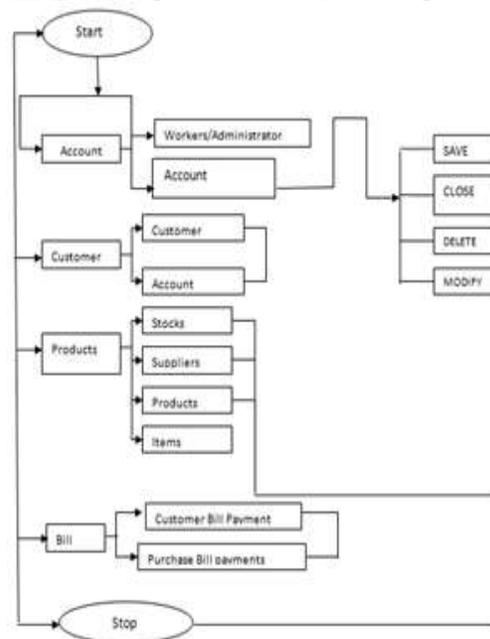


Fig. 4.1 System Diagram



### V. IMPLEMENTATION

The project is implemented with Java and MySQL along with XAMPP software distribution. The implementation screenshots are shown as below.

A screenshot of a web application window titled 'Admin Page'. It contains two input fields: 'User name' and 'Password'. Below the fields are two buttons: 'Login' and 'Exit'.

Fig. 5.1 Admin Page

A screenshot of a web application window titled 'Main Menu'. The title bar contains the text 'Stock Bill Customer Exit'. The main content area is currently empty.

Fig. 5.2 Main Menu

A screenshot of a web application window titled 'Adding stock'. It contains four input fields: 'Product ID', 'Product Name', 'Rate', and 'Qty'. Below the fields are two buttons: 'Submit' and 'Clear'.

Fig. 5.3 Adding stock

A screenshot of a web application window titled 'Billing'. It features a table with columns: 'pid', 'pname', 'rate', 'qty', and 'amount'. Above the table are input fields for 'Name', 'Phone', and 'Email', along with a 'Submit' button. Below the table are input fields for 'Total', 'CASH', and 'Bill Amount', along with a 'Show' button.

Fig. 5.4 Billing

A screenshot of a web application window titled 'Bill Calculation'. It features a table with columns: 'pid', 'pname', 'rate', 'qty', and 'amount'. Above the table are input fields for 'Name', 'Phone', and 'Email', along with a 'Submit' button. Below the table are input fields for 'Total', 'CASH', and 'Bill Amount', along with a 'Show' button.

Fig. 5.5 Bill Calculation

A screenshot of a web application window titled 'updation option'. It contains five input fields: 'Name' (with a dropdown menu), 'Address', 'Phone', 'Email', and 'Credit amount'. Below the fields are two buttons: 'Update' and 'Exit'.

Fig. 5.6 (a) updation option



Fig. 5.6 (b) update orders



Fig. 5.7 (a) Registration page

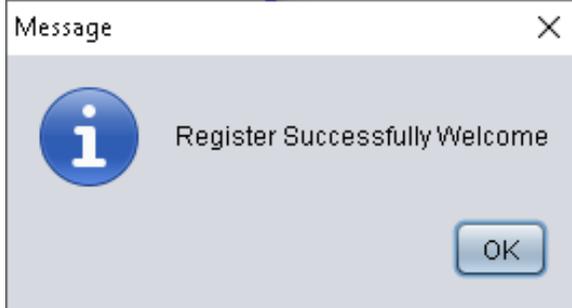


Fig. 5.7(b) User Registration

A lot of challenges surfaced during the development of this incredible application though it tried stopping this

project but the doggedness and consistency of the developer was in match with the challenge

The following are some of the problems or challenges encountered.

- Expensive internet facility.
- Inadequacy of power supply and many more.
- Time factor on research to get a way of packaging the application successively.

## VI. CONCLUSION AND FUTURE ENHANCEMENTS

In conclusion, Canteen Billing System has to deal with making appropriate effort to stop the rising problem to all manual canteen billing operations in order to enhance the operation of the canteen. In this project, the software or system that can be used to aid all canteens that are still operating manually have been successfully developed. The software can be implemented in all canteens. The software has a large memory of storing all the food products in the canteen and also keeping record which is highly effective and accurate.

In the future, the following components can be added to the system in order to improve the effectiveness and efficiency of the system, which includes:

1. An advanced password system that will be embedded into all login pages to increase the security of the system.
2. A good internet backup should be automated after everyday sales.
3. Internet Transactions should be allowed.

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