

Making The Cashier Application For The Tonguewing Meatball Restaurant Using Mysql And Netbeans

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Abstract.

The development of information technology and science in the field of automation has recently had a great influence in almost all fields. An automated system makes all work easier with very accurate results and reduces processing time. In this scientific writing, the author discusses the difficulties in the data collection process, calculating the total price and checking data in a restaurant that still uses the manual method, which is why the author creates this application that aims to simplify and facilitate entrepreneurs help build their business from mistakes or even losses that can be detrimental to both the customer and the restaurant manager. The design of this POS application uses UML, navigation structures and flowcharts. For the software, the author uses NetBeans and MySQL applications to process the database.

Keywords: Application, cashier, mysql, netbeans, restaurant

I. INTRODUCTION

Information technology and science in the field of computerization are currently growing rapidly. Through a computerized system, all work can be carried out more easily with very accurate results and shorten the processing time. Companies that exist today must have advantages in carrying out their business processes in order to survive in the business world. Therefore, nowadays many companies are starting to utilize information systems and technology as the main components in achieving competitive advantage. This business activity is growing and multiplying in the capital and in the countryside. Restaurant business requires special attention in running it. There are so many positive impacts that can be obtained by restaurant business actors if they implement this computerized system. In addition to giving a more modern impression to customers, another positive impact obtained in this system is for example on financial management. In the payment system in restaurants, there are those who still use the manual method and have not used the computerized method, so the process is still fairly slow and errors often occur in the process of calculating payments and recording sales data at restaurants.

II. LITERATURE REVIEW

NetBeans

NetBeans is an Open-Source Integrated Development Environment (IDE), which means a software for Java desktop applications and an open source integrated development environment for development with Java, PHP, C++, and other programming languages. NetBeans is also called as Platform Of Modular Components which is used to develop Java desktop applications.

Advantages and Disadvantages of NetBeans

Excess :

1. NetBeans GUI Builder is very suitable for use in developing Enterprise-scale systems.
2. NetBeans includes GlassFish V2 UR2 and Apache Tomcat 6.0.16.
3. NetBeans is very compatible with Swing as well, so it becomes one of the software development programs that can run multi-platform.
4. NetBeans is a multi-language software, besides Java this software can be used to build programs in other languages such as C/C++, Ruby, and PHP.

Deficiency :

1. NetBeans Only supports 1 Java GUI development, namely Swing. Even though there are more popular Java GUIs, namely SWT and JFace.
2. NetBeans patented the source for the Java GUI which is being worked on in a Generated Code, so that programmers and developers cannot change or modify its contents manually.
3. NetBeans requires sufficient memory and hard disk space to use it.
4. NetBeans requires processor support that is reliable enough to get maximum performance.

Data Types and Variables in NetBeans

• Data Type

Data Type is a pattern of representation of data on a computer and serves to define the object to be programmed. In principle, the type determines the internal representation of the data or a value. Data types are used to store and represent data within the application.

Broadly speaking, there are 2 groups of data types in NetBeans, namely Primitive Data Types and Non-Primitive Data Types.

Primitive data type, consisting of the following data types:

1. Integer data type: The data type for integers.
2. Float/Double data type: Data type for fractional numbers.
3. Boolean data type: A data type that contains the value true or false.
4. Char data type : Data type for 1 character.

Non-primitive data types, including:

1. String data type: The data type for the character set.
2. Array data type: The data type for a collection of other similar data types.
3. Object data type: A special data type that can accommodate a variety of data, including having its own function/method.

• Variable

A variable is a location in memory, whose interpretation depends on the storage class defined by the keyword and its declaration context and type. Basically, each variable has a name (known as an identifier), a type, and a scope or visibility.

MySQL

MySQL is a Relational Database Management System (RDBMS) which is distributed free of charge under the GPL (General Public License). Where everyone is free to use MySQL, but may not make it a closed source or commercial derivative product. MySQL was created by TcX and has been trusted to manage a system with 40 databases containing 10,000 tables and 500 of them having 7 million rows. MySQL AB is a Swedish commercial company that sponsors and owns MySQL. The founders of MySQL AB are two Swedes named David Axmark, Allan Larsson and one Finn named Michael "Monty". MySQL is a derivative of SQL. SQL is a database operation concept, especially for the selection or selection and entry of data, which allows data operations to be done easily automatically. The reliability of a database system can be seen from how the optimizer works in carrying out SQL commands, which are made by the user and the application program. As a database server, MySQL can be said to be superior to other database servers in querying data. This is evident for queries performed by a single user, MySQL query speed can be ten times faster than PostgreSQL and five times faster than Interbase. SQL can be used stand-alone or embedded in programming languages such as C, and Java.

MySQL Strengths and Weaknesses

Excess :

- Multi-threaded program, so it can be installed on servers that have multi-CPU
- Supported common programming languages such as C, C++, Java, Perl, PHP, Python, TCL, APIs etc.
- Works on multiple platforms.
- It has quite a lot of column types, making it easier to configure the database system.
- It has quite a lot of column types, making it easier to configure the database system.
- Has a fairly good security system with host verification.

- Supports ODBC for Microsoft Windows OS.
- Supports records that have fixed length columns.
- Free software.
- Integrated with PHP

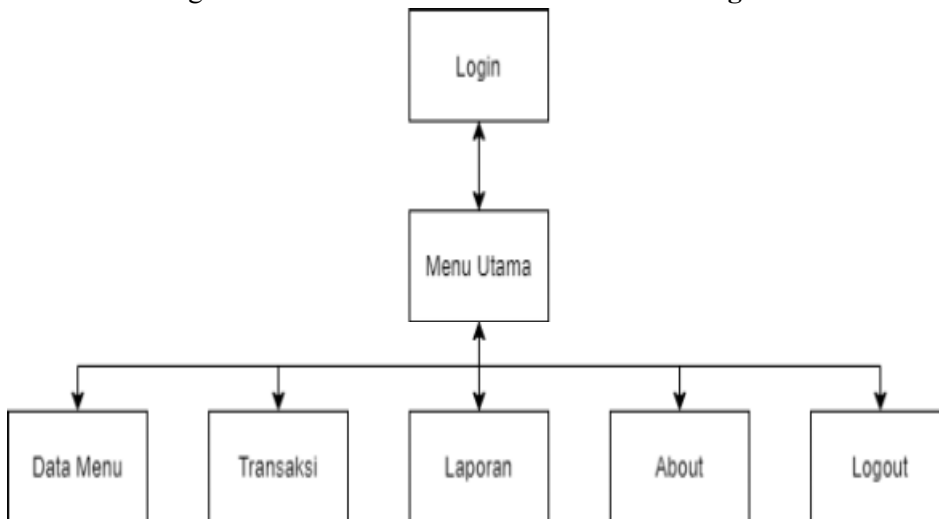
Weakness :

- For connections to visual programming languages such as vb, delphi, and foxpro, mysql lacks support, because this connection causes the fields to be read to match the connection from the visual program, and this causes mysql to be rarely used in visual programs.
- The data handled is not so big.
- In terms of security, or security, which is a bit too simple for a SQL Engine, although not as simple as SQLite which also comes from the Open Source world and is quite popular with Web Developers.
- The MySQL software development project was initiated, and is still chaired by Michael Monty Widenious. MySQL software has a dual license system, that is, you can choose an Open Source/Free Software license under the GPL (General Public License).

III. RESEARCH METHOD

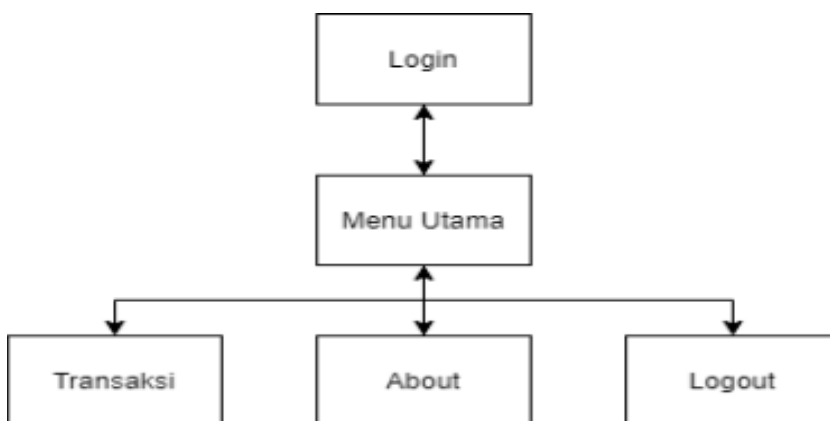
User Navigation Structure Design

In the navigation structure, the user uses a mixed navigation structure between hierarchical and non-linear user navigation structures that are made as shown in **Figure 3.1**.



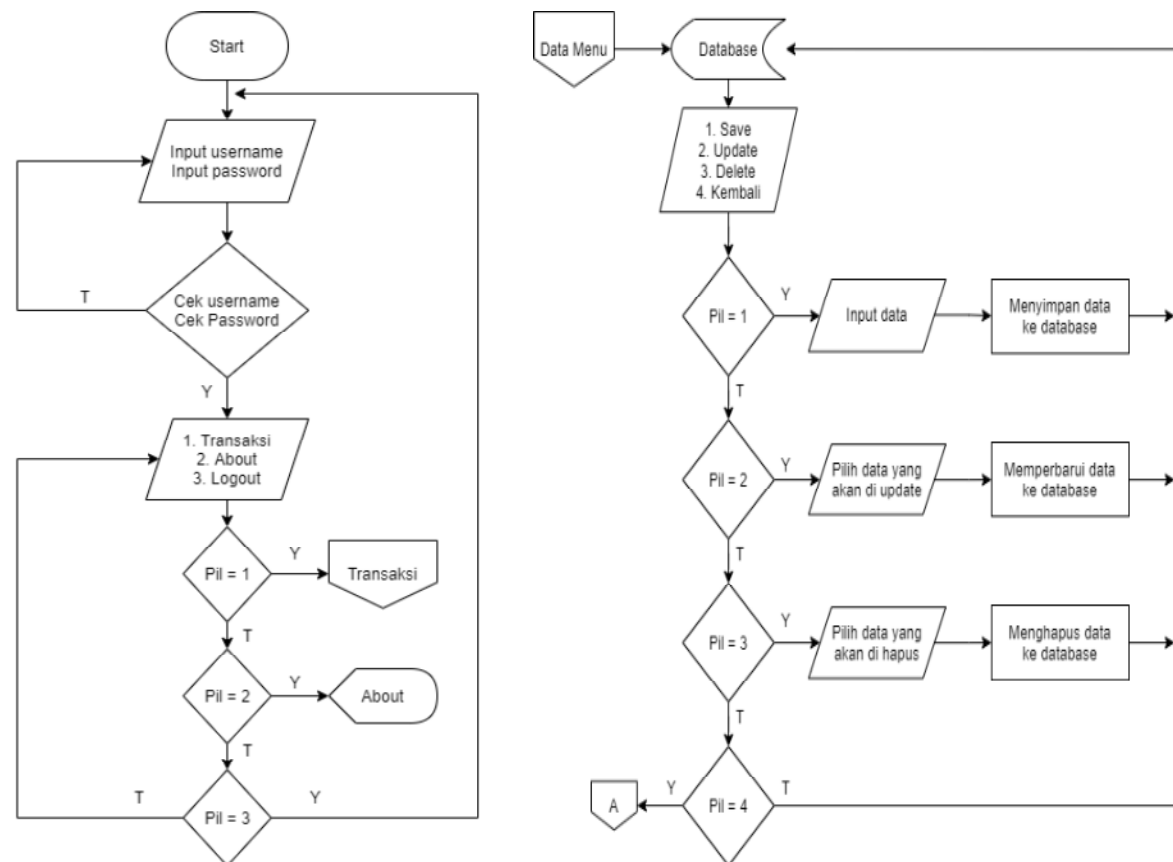
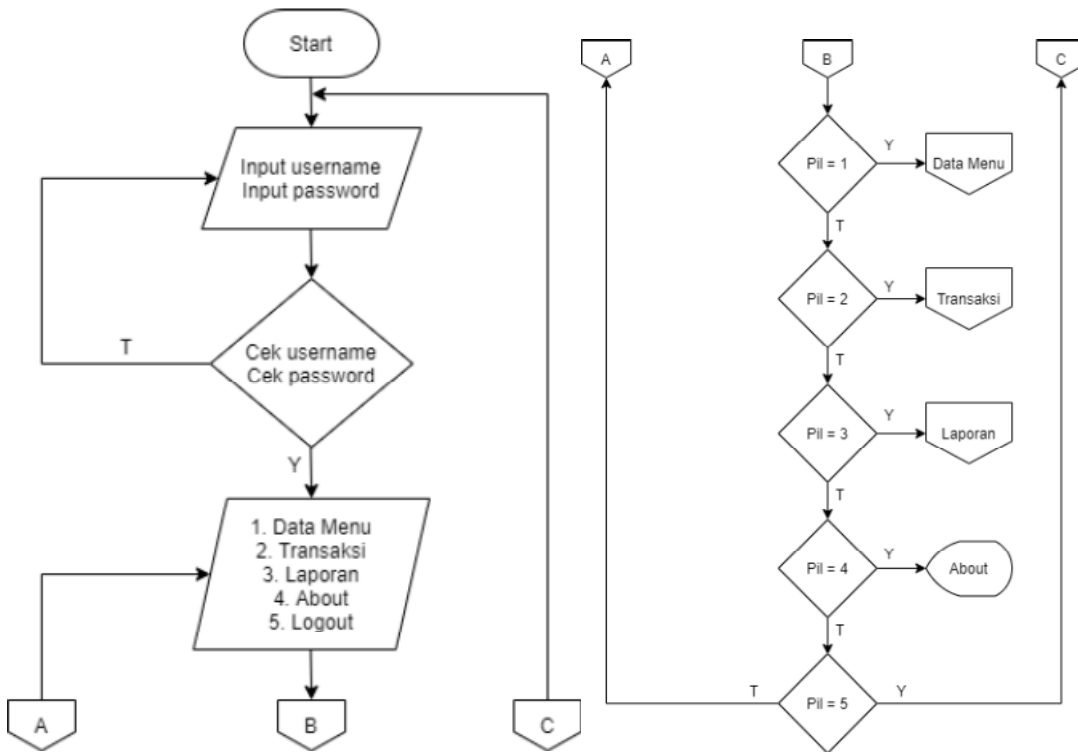
Admin Navigation Structure

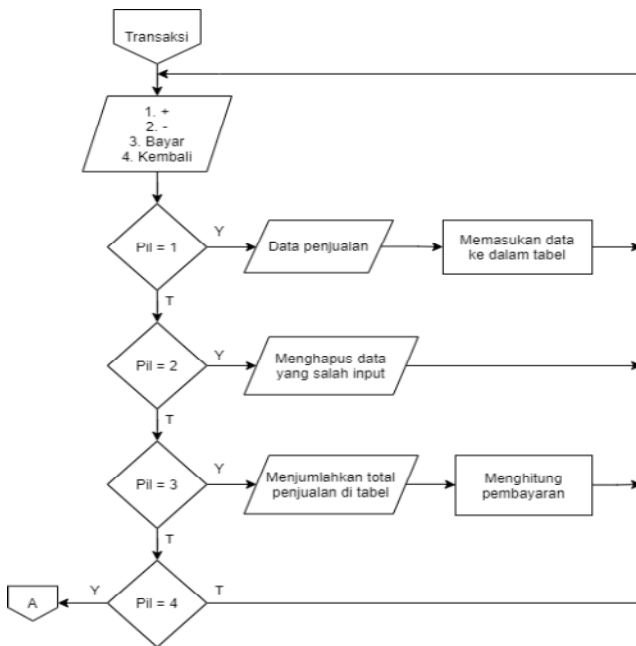
The Admin Navigation Structure uses a mixed navigation structure between hierarchical and non-linear. The navigation structure is made as shown in **Figure 3.2**.



Flowchart Design

To make it easier to understand this payment application, it will explain the design of the application with a flowchart.

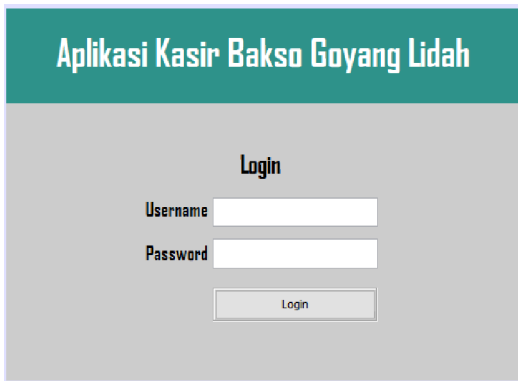




IV. RESULTS AND DISCUSSIONS

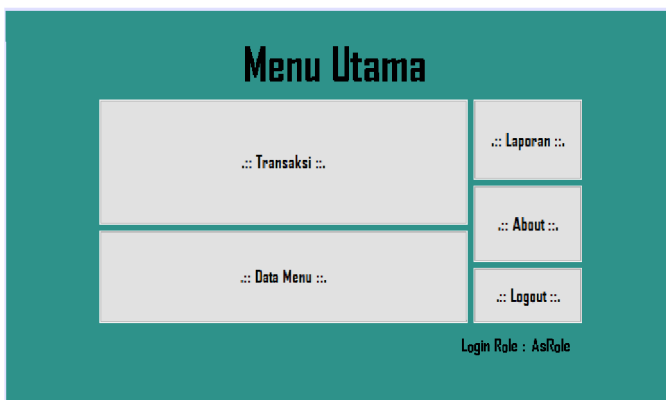
User Login Page

Figure 4.1 is a picture of the user login page on the Ibu Ghina kitchen website. In the login screen, there are four menus, namely home, basket, login, and list. The login page displays a form for user login with two textboxes to enter email and password. There is one button to login.



Home Page After User Login

Figure 4.2 is a picture of the home page after the user logs in on the website of Bunda Ghina's kitchen. On the home screen after user login, there are five menus, namely home, basket, shopping history, logout and profile. the home page after logging in shows a slide, the latest product, the buy button and the detail button.



Transaction Form

Menu Transaksi
Masukan Menu Login Role : rolenya

Title 1	Title 2	Title 3	Title 4	Jumlah	Tambahkan
				<input type="text"/>	<input type="button" value="+"/>

Kode Transaksi

Data Menu Yang Dipilih

Title 1	Title 2	Title 3	Title 4	Hapus
				<input type="button" value="-"/>

Total

Bayar

Transaction Report Form

Before creating the Report Form, we create a Date Form which is used to find transaction data first.

Form Laporan Login Role : rolenya

Transaksi Sebelum Tanggal Report Pendapatan

Transaksi Antara Tanggal

Transaksi Setelah Tanggal

V. CONSLUSION

From the results of testing this cashier application, it can be concluded that this application can help meatball employees shake their tongues in sales and making transaction reports, this information can be used by the restaurant in managing the food sales system. This application can run on Windows 10 64 bit, NetBeans IDE 8.2, SQL Xampp 7.4.16. The advantages of this program are that it is easy to use, does not require an internet connection to access it, because it is desktop-based, the system that has been created is equipped with access that has been adjusted to the user, in order to maintain data security properly and cannot be accessed by unregistered users, and has a reporting system per day, per week, or month.

VI. SUGGESTIONS

In making this application it is realized that the application that has been made is simple and is still far from perfect, here are some suggestions:

- Future developers are expected to be able to add commands to print receipts that can be connected to portable printers.
- For further developers, it is hoped that they can beautify the appearance of this cashier application.
- The important thing to note in this new system is to maintain the software properly and correctly.

It is well realized that the sales information system program that was created and recommended still needs to be developed more widely, so that readers who are interested in this application are expected to be able to develop it.

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