

# SIMPLEST METHOD OF COFFEE AND SNACK SHOP INFORMATION SYSTEM

Moh Moh Aung, Hlaing Htake Khaung Tin  
Research and Development Department  
University of Computer Studies, Yangon, Myanmar

**Abstract**— An organized and systematic office solution is essential for all shopkeeper and organizations. There are many administrations for the maintenance of Item information and shop databases. This system provides various records regarding items. Most of these track records need to maintain information about the item. This information could be the general details like item, Itemname, Price, Type etc.

This system is useful for easy user interface. We are planning to utilize the powerful database management, data retrieval and data manipulation. We will provide more ease for managing the data than manually maintaining in the documents. This system is useful for saving valuable time and reduces the huge paper work.

**Keywords**— Item information, shop databases, database management, data retrieval, data manipulation.

## I. INTRODUCTION

Coffee and snack shop information System deals with all kind of Item details, related reports, shop details, price details, curriculum and other resource related details too. It tracks all the details of an Item from the day one to the end of his shop which can be used for all reporting purpose, coming item day curriculum details etc. Our design can facilitate us to explore all the activities happening in the shop.

The Coffee and snack shop information system is an automated version of manual student Management System. It can handle all details about item. The details include type details, price details, item details etc.

In case of manual system they need a lot of time, manpower etc. Here almost all work is computerized. So the accuracy is maintained. Maintaining backup is very easy. It can do within a few minutes. Coffee and snack shop information system is managed by an administrator. It is the job of the administrator to insert, update, delete and monitor the whole process.

## II. BACKGROUND THEORY AND RESOURCES

### A. System Development Life Cycle

In figure 1 shows Systems Development Life Cycle (SDLC) is the most common process adopted to develop a project and not surprisingly, this project is following this model too. To be precise, waterfall model is being applied. Waterfall model is a sequential model process where the input of a phase actually results from the previous phase.

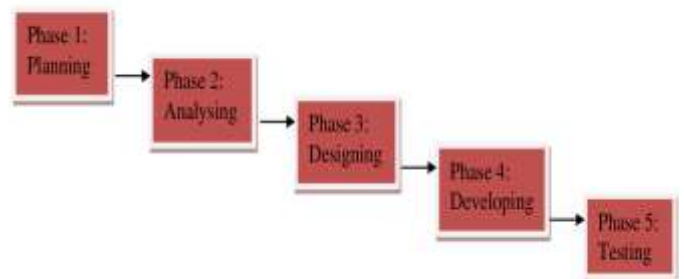


Figure. 1 SDLC Phases

There are five phases in this model and the first phase is the planning stage. The planning stage determines the objectives of the project and whether the project should be given the green light to proceed. This is where the proposal submission comes into picture. After obtaining the approval, the next phase is analysis. Gathering and analysis the system and user requirements are essential for entry to the design step.

With the user requirements gathering completed, there is a need to prepare the resources for the project. Be it software or hardware components, careful consideration and selection is to be taken care at this stage. The decision on the appropriate resources to be used is further elaborated under the subsections below. The next step is to design the system and database structure.

Results from the analysis and preparation that were concluded from the previous stage are put into action. With the user requirements in mind, the flow of the system is planned and the user interface is designed to suit their easy navigation needs. In addition, the number of tables, attributes, primary and unique keys of the database is listed.

After completing the design, actual coding begins. Database is created and codes are written. Some of the codes required amendments and improvement to it so these are being



developed at this fourth stage of the waterfall model. With the development completed, testing will begin. The codes and database are tested to ensure the results obtained are as intended. More time is spent on both development and testing stages because it is inevitable to have errors and issues and buffer time is allocated for troubleshooting.

### B. Scripting Language System

There are many scripting languages available in the market. VBScript, Perl, JSP (JavaServer Pages), ASP (Active Server Pages) and PHP (Hypertext Pre-processor) are some of those commonly used. Yet for this project, PHP is the language that is utilized for the coding piece because it is a server-side, embeddable HTML language. Being a widely-used open source scripting language, it is free for everyone to use and is especially suited for web Development.

On top of that, the existing system is already using PHP. There are many advantages for using PHP thus no need for the switch to another scripting language. Other than being a freeware, there are many free upgrade packages easily available. The other benefit of choosing PHP is the ease in installation. It can run as a plug in on quite a number of web servers such as the Apache.

On the other hand, JSP requires J2EE server to run and because it is a Java coded language, it is therefore more complex to understand and to do coding. Further exploring on the processing speed against ASP, PHP is interpreted at runtime and not compiled into memory whereas ASP is more memory intensive with each ASP language compiler running in its own processes. This results in slower processing speed for ASP. In addition, ASP runs more reliably only on Microsoft Windows-based web servers than other web servers. In conclusion, PHP is the preferred selection due to the ease of usage and it can be uploaded and run on another platform with minimal change required to be done to the script. Beyond and above, the compiling time and speed for PHP is faster and more efficient.

### C. Database Selection

There are a variety of databases that we can select from the market. The widely used databases are Microsoft Access, Microsoft SQL, Oracle and MySQL. Looking at Microsoft Access, it does not encourage concurrent usage and it may be inefficient, as the database needs to be saved into one file. It is also unable to process high speed and large size database as compared to MySQL.

In terms of costs, Oracle database requires a licensing fee but MySQL database is a freeware. In addition, MySQL database is easy to install, user friendly, reliable and is able to run on different platforms. Moreover PHP can access MySQL database directly without the need to go through ODBC (Open Database Connectivity).

To conclude, PHP script is able to run faster with MySQL database and the processing time will definitely be shorter. The pre-school does not require complex and costly software

for its database management system hence MySQL is the ideal database for this project.

### D. Web Server Selection

After deciding on the scripting language and database, next is to select the web server that can support them. Web server is necessary for the delivery of web content to the web browser. As such, Apache HTTP server which has performance similar with other 'high-performance' server is considered. In table 1 shows the comparison of web servers.

Thereafter, research and actual testing have been performed to see the outcome of the various servers listed in the Figure below. These servers include PHP and MySQL in their installation packages thus allowing smoother and simpler download process. However, based on the performance and interface, WAMP or LAMP server is the preferred choice.

Table. 1 Comparison of web servers

Package	Release Date	Version	License	Apache HTTP Server	PHP	MySQL	phpMyAdmin	SQLite	Automatic Update
<a href="#">AMPPS</a>	3/8/2011	1.1	Free	2.2.21	Yes	Yes	Yes	Yes	Update Package
<a href="#">WampServer</a>	26/9/2011	2.2a	General Public License	2.2.21	Yes	Yes	Yes	-	-
<a href="#">XAMPP</a>	21/9/2011	1.7.7	General Public License	2.2.21	Yes	Yes	Yes	Yes	-

## III. SYSTEM ANALYSIS AND DESIGN

### A. System Development Life Cycle

In order to provide a clearer picture of the functionality provided by the Item and Shop registration system, the system flow diagram shown in Figure 2.

When the system starts, the administrator has to login the system. If the administrator is not an authorized user, he or she must login again. If the administrator is an authorized user, he or she can register new Item and shop or view registered Item and Shop information. And then, if an administrator wants to modify Item information, he or she can update and delete the Item detail. After that, an administrator can logout from the system.

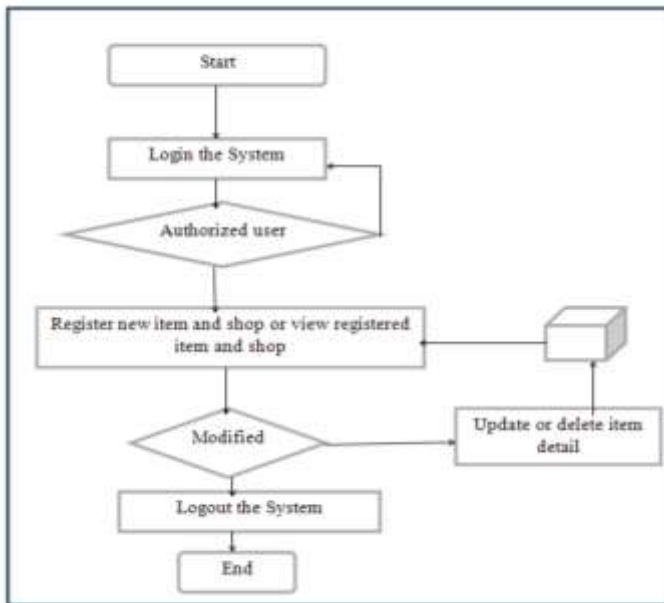


Figure. 2 System Flow Diagram

**B. System and Database Testing**

Testing is the last phase of this system. This is the stage where it shows rectification is required.

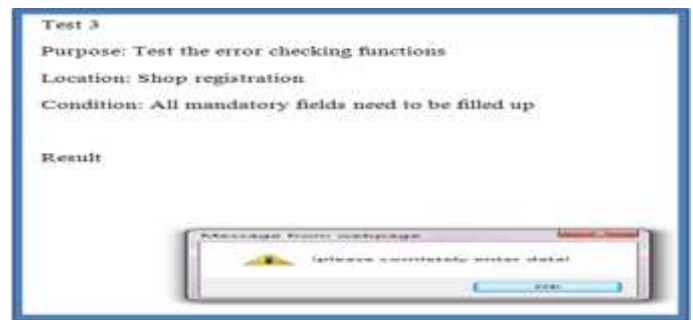


Figure. 5 Testing 3

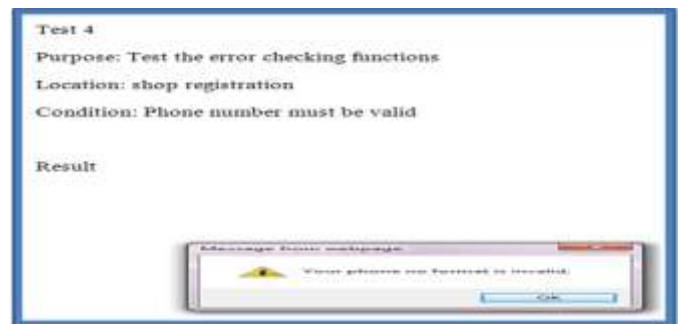


Figure. 6 Testing 4

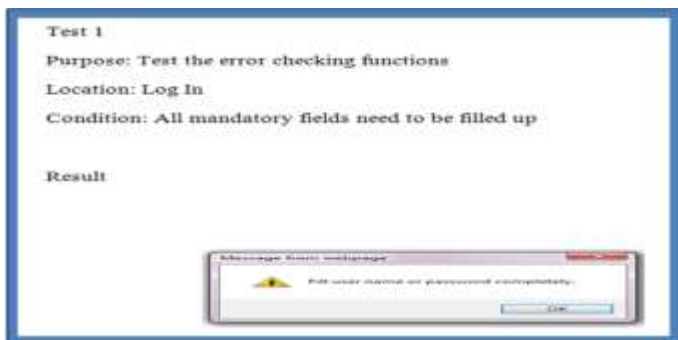


Figure. 3 Testing 1

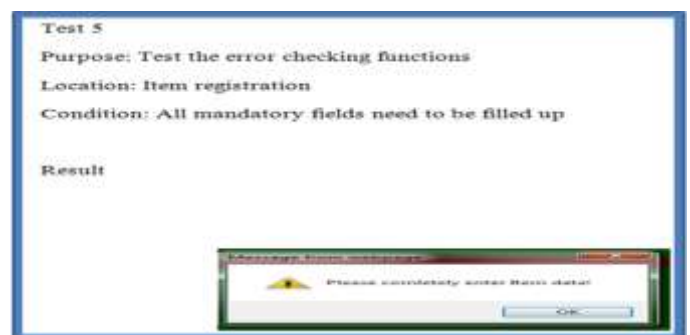


Figure. 7 Testing 5



Figure. 4 Testing 2

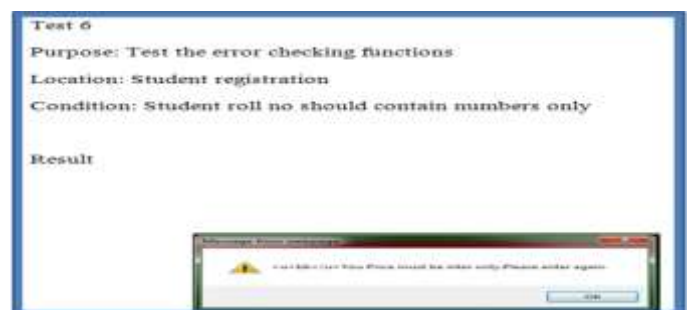


Figure. 8 Testing 6



#### IV. CONCLUSIONS

As we have seen in this system, the process of creating a user-friendly and straightforward platform that facilitates the administrator's job is one filled with complexity. From understanding user requirements to system design and finally system prototype and finalization, every step requires in-depth understanding and commitment towards achieving the objectives of the system.

Although the shop database management module is not fully integrated to the system, the system prototype demonstrates easy navigation and data are stored in a systematic way. Overall, efficiency has improved and work processes simplified. Although all the objectives have been met, the system still has room for improvement. The system is robust and flexible enough for future upgrade using advanced technology and devices.

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