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Web Based Billing Software

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Abstract: *Billing software is providing its services to companies which are in the field of production, quality control etc. with their rich expertise and experience and information technology they are in best position to provide software solutions to distinct business requirements. This project offers user to enter the data through simple and interactive forms. This is very helpful for the client to enter the desired information through so much simplicity. This Projects aims to Provide Real time Functionalities like Viewing and managing data.*

Key Word: *Billing System, Customer Information, Product Names, Company Names, Product Reports.*

I.INTRODUCTION

The main objective of this project is to make billing management much easier for Business Enterprises. In this project, we have developed a "Web Based Billing Software" which is an application to automate the process of billing and managing a departmental store, which would be responsive by using HTML, CSS, Bootstrap, and JavaScript as front-end tools and the back-end is managed by a database (My SQL), PHP, php My Admin and Code Igniter Framework is used to simplify the PHP code. In particular, this project in PHP Code Igniter focuses mainly on keeping track of the product bills. To be more precise, the system helps to keep track of sales and purchase records with respect to available items. Also, the system displays all the sales and purchase reports. In addition, the system allows managing customers, items, daily cash, and more. Evidently, this project contains an admin panel with an employee panel as well. In an overview of this web application, an employee has a minor role and control over the system. He/she can view overall item records. Here, an employee can list out sales and purchase records. In short, an employee can only view records, but cannot make changes to them. This software allows company owners to set up an online bill management system, consumers to read bills, and owners to save or download invoices for new businesses. It is developed on a network of department stores around country. It also assists clients in creating, updating, and calculating bills/invoices without manually listing them.

II.MATERIAL AND METHODS

The above programming languages and tools are used to develop this project:

HTML:

HTML (Hyper Text Markup Language) is the standard markup language that is used to structure a web page and its content. It consists of series of elements which tell the browser how to display the content. HTML provides a means to create structured documents by denoting structural semantics for text such as headings, paragraphs, lists, links, quotes, and other items. This markup language is used to structure the UI part of billing software.

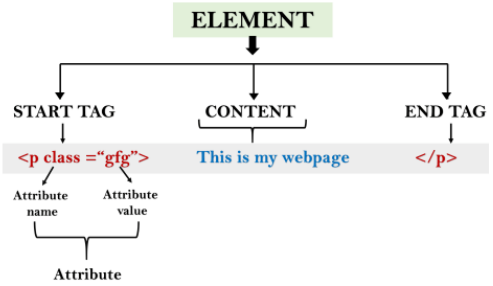

Fig. Working of HTML

History of HTML

HTML (Hyper Text Markup Language) was created by Sir Tim Berners-Lee in 1991, but it wasn't officially released until 1995. HTML 4.01 was published in 1999 and was a major version of html.

HTML is being updated and is evolving. Before its revised standards and specifications are carried in, each version has allowed its user to create web pages in a way that has made them very efficient and pleasant to see.

- HTML 1.0 was introduced in 1993 with the goal of distributing data that can be viewed and accessed by web browsers. However, not many of the developers worked on websites. Additionally, the language was not growing.
- Next, there is HTML 2.0, which was released in 1995. It incorporates all the characteristics of HTML 1.0 as well as a few new ones, and it was the standard markup language for designing and developing websites until January 1997. HTML 2.0 also improved a number of its basic functions.
- Following HTML 3.0, Dave Raggett presented a brand-new paper or draught on HTML. It contained updated HTML capabilities that gave webmasters more potent tools for creating web pages. However, the new HTML's potent capabilities made it more difficult for the browser to make additional advancements.
- The next version of HTML is HTML 4.01, which is widely utilised and was a popular HTML version before HTML 5.0, which is currently available and being used globally. HTML 4.01, which was released in 2012, can be compared to HTML 5, which is an expanded version.

CSS:

CSS is the language for web design. It allows you to change the color, design, and fonts of your webpage. It works with HTML and you can use this language with any type of markup language.

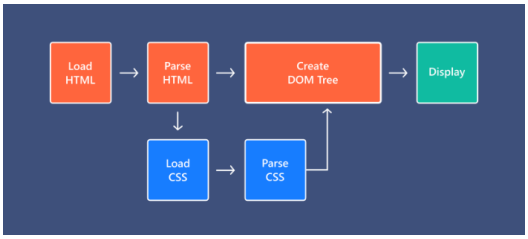

Fig. Working of CSS

History of CSS

- In 1994, the proposal was made for CSS by HÃ¥kon Wium Lie.
- In 1996 the world's first version of CSS was released.
- In 1998 CSS 2 was released and the third version of CSS began to be developed.
- During this time, CSS 3 was a completely different thing, instead of being a single specification it was published as a set of modules.
- In 2011 CSS 2.1 was released, which fixed the errors found in CSS 2.

JavaScript:

It is an interpreter, full-fledged programming language that enables dynamic interactivity on websites when applied to an HTML document. It is used by several websites for scripting web pages.

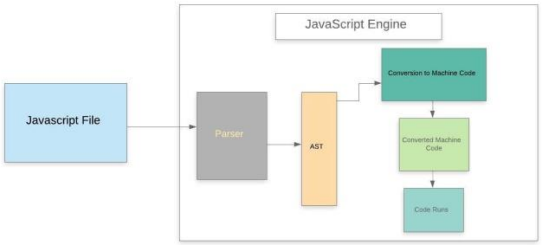

Fig. Working of JavaScript

History of JavaScript

In 1993, a web browser was created by web developers. This browser was called 'mosaic'. In 1994, Netscape was founded. Netscape people came up with an idea that web needs to get more dynamic. Thus they came up with a 'glue language' for web development. So they developed a browser for themselves containing a' scheme programming language' as their glue language. Netscape decided to add a scripting language so that it could compete with Microsoft over the web technologies and platforms. The language, later known as JavaScript, has an extra word added in the front of it. Finally, Marc Andressen came up with the first programming language (JavaScript) named Mocha in May 1995. Later, the marketing team renamed it as Live Script and because of trademark and other reasons, finally it again renamed to JavaScript.

Bootstrap:

A free and open-source front-end development framework called Bootstrap is used to build websites and web applications. Bootstrap offers a collection of vocabulary for template designs and is designed to enable responsive construction

of mobile-first websites.

History of Bootstrap

@mdo and @fat developed Bootstrap at Twitter in the middle of 2010. Twitter Blueprint was the previous name for Bootstrap before it became an open-source framework. When Twitter hosted its inaugural Hack Week a few months after it began development, the project expanded as coders of various skill levels rushed in without any outside guidance.

PHP:

Many developers use PHP, an open-source server-side programming language, to create websites. In addition, it is a general-purpose language that you can employ to create a variety of tasks, such as Graphical User Interfaces (GUIs). It is a powerful tool for creating dynamic and interactive Web sites.

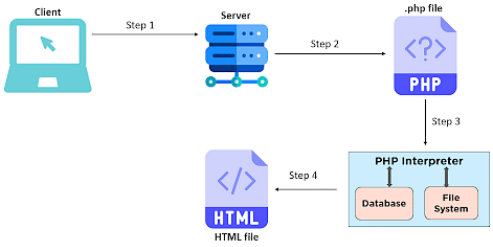

Fig. Working of PHP

History of PHP

Rasmus Lerdorf probably had the idea for PHP in the fall of 1994. He kept track of who visited his online resume by using early, unreleased versions on his home page. The Personal Home Page Tools was the name of the initial version that was made public and utilised by others around the beginning of 1995.

Php My Admin:

Free PHP-coded programme called php My Admin is designed to manage My SQL administration on the Internet. Numerous My SQL and Maria DB operations are supported by php My Admin. While you can still directly execute any SQL command, you may perform frequently used actions (managing databases, tables, columns, relations, indexes, users, permissions, etc.) via the user interface.

History of php My Admin

As an IT consultant at the time and eventually the creator of the software firm Maguma, Tobias Rats chiller began developing a PHP-based web front-end for MySQL in 1998 after becoming interested in My SQL-Web admin. Due to a lack of time, he abandoned the project (as well as phpAdsNew, of which he was also the original creator) in 2000.

By then, php My Admin had already established itself as one of the most well-liked My SQL administration tools and PHP applications, with a sizable user and contribution base. Three developers (Olivier Müller, Marc Delisle, and Loc Chapeaux) took over development of php My Admin in 2001 and registered the project at Source Forge in order to coordinate the growing number of fixes. The primary website, downloads, and other content departed Source Forge and moved to a content delivery network in July 2015. In parallel, the releases started to be PGP-signed. After that, email lists were converted and issue tracking was moved to GitHub. Prior to version 4, which heavily relies on Ajax to improve usability, the programme employed HTML frames.

My SQL:

Based on structured query language, MySQL is a relational database management system (RDBMS) created by Oracle (SQL). A systematic collection of data is called a database. Anything from a straightforward shopping list to a photo gallery or a location to store the enormous volumes of information in a business network may be it.

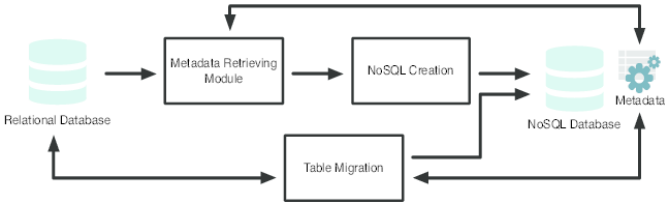

Fig. Working of My SQL

History of My SQL

Swedish businessmen David Axmark, Allan Larsson, and Michael "Monty" Widenius founded My SQL AB, which developed My SQL. Widenius and Axmark started working on My SQL's initial development in 1994. On May 23, 1995, My SQL released its initial version.

Code Igniter Framework:

Code Igniter is a powerful PHP framework with a very small footprint, built for developers who need a simple and elegant toolkit to create full-featured web applications. It is an open-source software used to develop the web framework that is to be put to use to create dynamic web pages and websites in the PHP language.

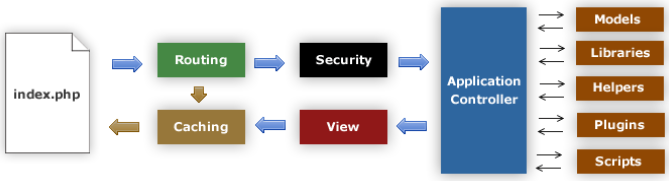

Fig. Working of Code Igniter Framework

1. The index.php serves as the front controller, initializing the base resources needed to run CodeIgniter.
2. The Router examines the HTTP request to determine what should be done with it.
3. If a cache file exists, it is sent directly to the browser, bypassing the normal system execution.
4. Security. Before the application controller is loaded, the HTTP request and any user submitted data is filtered for security.
5. The Controller loads the model, core libraries, helpers, and any other resources needed to process the specific request.
6. The finalized View is rendered then sent to the web browser to be seen. If caching is enabled, the view is cached first so that on subsequent requests it can be served.

III.PROPOSED SYSTEM

The block diagram for Web Based Billing Software is shown below:

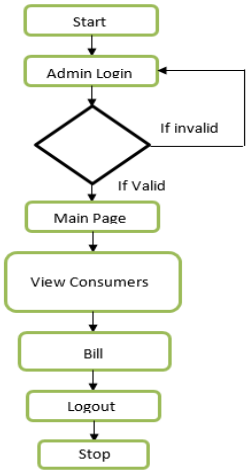

Fig. Simple Block diagram for Web Based Billing Software

The proposed software reduces paperwork and easily generate bills and sends the bill receipts to the customers.

IV.SYSTEM DESIGN

This software has five functional components: “Administrator Panel and Purchase Management”, “Sales Management”, “Dues, Sales Return, Reminder, Payment Receipt”, “Item Replacement and Requirements”, “Reports and Complain Section”.

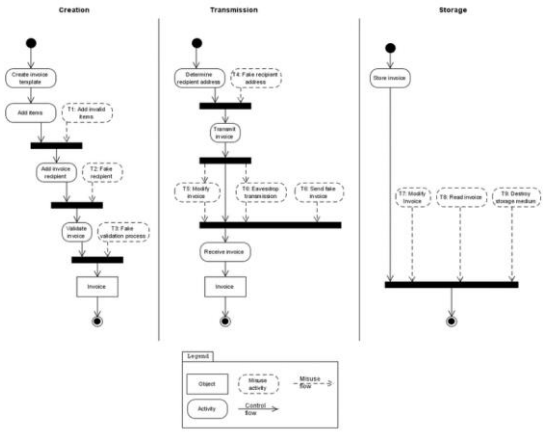

Fig. Activity diagram for Web Based Billing Software

Modules

The Software is implemented in PHP and consist of five modules:

Administrator Panel and Purchase Management:

An administrator has full control over the system. He/she can manage items, groups, daily transactions, customers, and so on. Here, each and every section has its own respective details such as name and other important details. Here, an admin first has to set up item and customer details for maintaining further transactions. Second, the user can manage the transactions like purchasing items. Moving towards the transaction section, allows the admin to manage purchase and sale products. To be more precise, the purchase section plays an important role in maintaining the total stock of an item. In fact, the user has to select a supplier, item and enter a quantity, pricing details for purchasing items. As a result, the system automatically calculates the total amount with certain charges.

Sales Management:

On one hand, the administrator can simply proceed towards maintaining their sales figure. In order to manage sales, he/she has to select any of the available customers, items, and quantity. In the end, the system displays the total amount for the particular sales transaction. Here, an admin can enter the received amount with other details like due dates and freight. In fact, this whole system runs with allowing dues amount too. Meaning, the customer can leave a certain amount in dues during the billing section. With it, all the dues amount with their respective customers' names can be seen on the administrator's dashboard. And, as soon as the billing section gets completed the system automatically generates an invoice with all the necessary details.

Dues, Sales Return, Reminder, Payment Receipt:

Talking more about the dues section, the user can later select any of the dues records and make changes to them. Speaking of changes, an admin can enter the remaining paid amount, remarks and list it out as dues received. As a result, the system clears out the requested dues. With sales management, there must also come sales return in favor. So, the user can list out all the sales items to return by providing customer, item details with quantity. With it, the user can generate payment receipts manually at any time by providing all the necessary details to the system. In addition to it, he/she can set up a number of reminders which kinda works as a notification throughout the whole system. For this, the admin has to provide text, reminder types such as once, weekly or monthly.

Item Replacement and Requirements:

Moreover, these both item replacement and requirement sections work whenever the user wants some replacements or requires more of them. In dept, the item replacement is somehow similar to sales return. This section contains information such as the name of the item, party name, item quantity, and remarks. Similarly, all the required products for the organization can be listed under the requirements section. For the management of this portion, the user has to enter details like item name, rate per piece, with customer/supplier name. Although these sections might not be as important as the previous one, still it can play a major role in the proper flow of the system.

Reports and Complaint Section:

On the other hand, the system generates a number of transaction reports. In fact, the admin can list out ledger, item ledger, collection, sales & purchase report. In addition to it, there are more sections such as purchase analysis, items purchased and sold, purchase log, dues, and sales frequency under it. For each section, the user needs to select dates from to current one. And as a result, the system generates reports in table form where the user can request to export data in excel format. Moving towards complaint management, the administrator can simply list out all the complaints from the customers with their own details too. Besides, there are tool portions where the admin can backup data, duplicate records, and much more.

Last but not least, a clean and simple dashboard is presented with various color combinations for greater user experience while using this Online Billing Management System Project in PHP My SQL Code Igniter. For its UI elements, a free open-source CSS framework; Bootstrap is on board with some Vanilla CSS too. Presenting a new Billing System Project in PHP My SQL which includes an admin panel that contains all the essential features to follow up, and a knowledgeable resource for learning purposes.

Available Features

- Admin Panel
- Setup Organization
- Product Management
- Customer Management
- Manage Item Opening Balance
- Purchase and Sales
- Sales Return
- Payment Receipt
- Dues Management

- Item Replacements
- Item Requirements
- Set Reminders
- Manage Daily Cash
- Ledger
- Item Ledger
- Collection Report
- Sales & Purchase Report
- Purchase Analysis
- Sales Frequency
- Purchase Log
- Export Report
- Backup Data
- To-Do List
- Calculator
- Address Books

V.CONCLUSION

The Web Based Billing Software project enables you to keep track of the goods and services your clients consume, create and send invoices, and collect payments. Some billing solutions can do much more, though. The repetitious tasks that your finance team works with on a daily basis can be automated by them. The system is user-friendly, highly interactive, and flexible for further expansion. The system will generate invoices as needed. Coding is done in a simplified and understandable way.

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