

Frontend Development of Billing Application

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ABSTRACT –Billing Software system is a project which aims in developing a computerized billing system to maintain all the billing work. Billing System is a web based project .The main modules available in this project are Calculate total module which manages the functionality of total calculation the stocks, bills, purchase, customer, employees, dealers, expenditure and reports.

Keywords –Billing System, Stocks, Purchase, Bills, customers, Employees, Dealers, Expenditure.

I. INTRODUCTION

Web development refers to building, creating, and maintaining websites. It includes aspects such as web design, web publishing, web programming, and database management While the terms "web developer" and "web designer" are often used synonymously, they do not mean the same thing. Technically, a web designer only designs website interfaces using HTML and CSS .A web developer may be involved in designing a website, but may also write web scripts in languages such as PHP and ASP. Additionally, a web developer may help maintain and update a database used by a dynamic website. Web development includes many types of web content creation. Some examples include hand coding web page in a text editor, building a website in a program links Dream weaver, and updating a blog via a blogging website. In recent years, content management systems. While there are several methods of creating websites, there is often a

tradeoff between simplicity and customization. Therefore, most large businesses do not use content management systems, but instead have a dedicated web development team that design and maintains the website.

II. LITERATURE REVIEW

The new billing approaches are mainly to apply the integrated concept of data warehouse with relevant billing data; in addition, use the methods of mining association rule to sort out the Billing Quantities Pattern and then figure out the billing quantities. Moreover, employ the Decision Tree algorithm of data mining to find out the unit billing price. As a result, the new billing approach is made of the methods of data warehouse and data mining. This study is mainly focused on improving the operation of current billing system to establish the new functionality of the Billing quantities and Billing price. As for the benefit of these two new functions, it is not only able to lead into clients' billing systems, but it is also capable of upgrading the efficiency in rapid setup; especially for the enterprises that already possessed billing system internally but not yet implemented. In addition, it can also reduce the difference in revenue, shorten the process of issuing invoice, speed up the export operation, increase the export efficiency and provide the revenue data for integrating into the Executive Data System (EIS), Decision Support System (DSS) and Business Intelligent System (BIS) to allow enterprises making the right decisions promptly.

III. DESIGN AND METHODOLOGY



CRM (Customer Relationship Management)/OMOF (Order Management and Order Fulfilment) system contacts with the billing system and billing system contacts with provisioning system to provision the services and network inventory system as well to assign phone numbers or IP addresses, etc.

Second possibility could be that the CRM/OMOF system itself contacts with provisioning system to provision the services and network inventory system as well to assign phone numbers or IP addresses, etc.

Typical Billing Process

Considering the above system architecture: → After a call is made or you can say a usage is generated by the end customer, the mediation system gathers usage data from the network switch and builds a call-detail record (CDR). This CDR must contain 'A' party number and 'B' party number, the start and the end date & times.

The CDR is then stored until it can be rated. To rate the call, the CDR is examined to see if the call is, for example, an 800 number, a local call that is covered by a local-area calling plan, international call or a toll call. Information such as the time of the call was placed and city code or country codes are used to calculate the rate for the call.

Once each call is rated, this information is stored until the invoice is run, usually once a month. When the invoice is run, other nonusage charges, such as discounts or monthly fees, can be applied to the bill or sometime called invoice.

There could be a rating time discount or billing time discount, different payments done by the customers, different adjustments given, all these information contribute in the final invoice generation.

This information is then converted in a format, which can be printed in a readable form. Finally, the envelope is printed, stuffed with enclosures, and mailed to the end customer.

Billing System Requirements

A billing system should be composed of a series of independent applications that, when run together, are referred to as the billing system. A good billing system should provide the following major functionalities with a depth of flexibility –Customer-interface Management – The billing system must be able to handle customer-initiated contact, oversee outbound customer contact, and manage the contact life cycle.

Order Management – It is a basic functionality, which should be available in a typical billing system. Billing system should be capable enough to capture product & service order and manage the order-entry life cycle, and oversee the order-completion life cycle.

Sales and Marketing – A satisfactory billing system should answer customer's query, handle commissions, provide sales support, track prospects, manage campaigns, analyze product performance, and acquire multiple dwelling units.

Rate Plans and Rating – A billing systems must manage a variety of products and services, different rate plans associated with those products and services and should provide flexible ways to rate usage generated by those products and services.

Invoicing – It is important that the system performs billing inquiry, generates bills, processes deposits, performs account administration, maintains tax and fee information, and processes financial information.

Credit Control & Collection – A billing system should control usage and revenue by assigning different credit classes to different customers. System should support payment collection and applying them on different invoices.

Multilingual Support – Multilingual support involves providing invoices and customer care services in multiple languages.

Multiple Currencies – Multiple currencies used in different countries can complicate the billing system as the billing and customer care system must be capable of recording and processing in units of multiple currencies.

Partner revenue management – Partner revenue management are the sharing of revenue between carriers that provide services to each other's customers.

Problem Handling – A billing system should also be able to manage trouble-ticket entry, coordinate trouble-ticket closure, and track the resolution progress of a trouble ticket.

Performance Reporting – A satisfactory system will provide performance reporting, ensure quality-of-service (QoS) reporting, create management reports, and generate regulatory reports.

Installation and Maintenance – The system should also provide workforce scheduling and manage activities performed at the customer premises.

Auditing & Security – A billing system should perform data audits and integrity checks. A secure system is always desirable for an operator.

Apart from the above functionalities, a good billing system should be –Accelerating time-to-market for new service launches.Enabling convergent view of customers and products.Supporting cost-efficient

architectural scalability.Enabling partner total cost of ownership
relationship management and settlement.Reducing

IV. RESULTS AND DISCUSSION

AppstartswiththeuserLoginwiththecredentialsandloadtheappwithmodules.ApplicationNameonTop,logged inuserName,ShopNameand Logout Button.



Figure:1LoginPageView

STOCKSMODULE:

ThehomepageistheStocksmoduleswhichshowsthecurrentproductlists.TheStockpageshouldcontainthefilterslike**Category**(Dropdown:Holdingallcategories), **Product**(Dropdown:Holdingallproductsbelongstorepectivecategory), **Dealers** (Dropdown: Holding all Dealers), **Stocks** <= (Load all stocks with the input

parameter). The Headings on the page are: Category, Product Name, Dealer, Stocks, Price, Rack No. InthebottomofthepagelinkbuttonstoAddStock,UpdateStock,Print,buttonsandTotalstockcount&Totalsum priceofallproducts.



Figure:2StockPageView

Bills Module:

Billmoduleisusedtobillingtheitems.NeedtogeneratebillsandShowbillsoption.Newbillsshouldcontainthevalues:

Ontop2buttons:**AddBill** and**ViewBills**

Bill No, Date, Customer Name, Mobile Number, Billing Address, ProductCategory, Brand Name, Item Name, item Code, stocks, MRP, Quantity,

Discount,DiscAmount, UnitPrice, GSTAmount, NetAmount and **ADDBUTTON** attheend.

- Addeditemsareshownin gridlist andbelowlist boxgiveanoptiontodeleted entereditemsfromlistby

DELETE BUTTON.

- At the Footer of the billing page: show Tax

Value (if applied), DiscountAmount (if applied), Bill Amount, Other Charges, Cash Paid, Total Paid, Old Balance, Balance amount, Date of Billing Clearance (Due date) and SaveButton, Save +Print Button, CancelButton.

- If User click on Save button need to save the bill to DB, if he clicked Save + Print, need to save and print the bill & cancel is to close the billing Window.



Figure:5 BillAddPage

V. CONCLUSION

The Shop was developed using HTML, Frontend technology. Any consumer can browse products, add, replace or delete a product from the cart. The consumer can log in, with his information such as his email and password. If the login does not go through, the user can re-register or ask to change the password. After login, the user can see the product in the cart and proceed onwards. The products can be paid. The administrator can verify the order, however the consumer can still look at the order in his or her account. The ordered price is saved in the database.

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