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Invoicing and Accounting Portal for Small Ventures

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Abstract: *This prototype is to ease out the work load of a single person handling the business, one needs a software that can generate invoices and maintain the accounts of the suppliers and the customers. The license of most of the billing software are too costly and it might not be affordable to such small ventures as there are lot of risk in their business. A billing software should be user friendly such that just a glance of interface can make them understand how to use the system. Small ventures cannot invest too much behind employers thus there should be portal or software that can perform work of more people.*

I. Introduction

Electronic billing is one of the fastest growing technologies not only in corporate world but also for small ventures. With ever increasing spread of Internet, Bill presentment and payment is becoming a new type of service area for periodic billers. GST is introduced in our portal. Industry experts predict that Internet Billing will fundamentally change the way companies interact with their customers. The implementation of this system greatly effects customer satisfaction. The portal enables users to provide timely, accurate processing of customer orders, requests and the ongoing management of customer accounts, products and sales information, etc. Invoicing and Accounting portal for small ventures that allows a organizations to manage a company's sales, purchases and invoices using technology to organize, automate and synchronize sales and invoicing activities. This is a customer-oriented feature which includes tracking of customers ‟ lifecycle right from the point they show interest in a particular product.

II. Implementation

Need for the system

In this growing era of electronic billing it is necessary for small ventures to track their expenses without any hassle. There are portals that generates invoices based on GST taxation and maintains account but are too costly for small ventures. The integral part of invoicing and accounting Portal helps you in managing your accounting and billing online. One can send billed invoices to their customers online by giving options to download or send them invoices over an E-mail .This Project is an application to automate the process of billing and management of small business. **System Requirement**

The Invoicing and Accounting portal for small ventures, we plan to design needs to fulfil the following functional requirements:

• **Sourcing:** The system should be able to handle sourcing from of all types in emergency response: direct purchases from the market.

• **Item coding:** The system needs to be able to code common items into the system so that users can easily pull out those items the next time they need to purchase, and to better analyze demand trends for emergencies in general (e.g. what are the best items and quantities to preposition based on past records).

• **Stock management:** The system should be capable to generate and print invoices and should be able to record stocks.

• **Barcode Detection:** The system should be able to scan the QR code of each item purchased or sold by the user which will automatically get updated into database.

• **Summary:** The system should provide economic/ financial reports to the user monthly or weekly or yearly depending upon the purchases and sales entries made by user.

III. Method

The system we are designing is a web-based online system coded in open source language – LARAVEL, PHP, HTML, AngularJS CSS backed with SQL databases.

Architecture

The proposed server-based centralized database structure is composed of two components: the online web-based system as the main component, backed with the mobile component using mobile platform based data collecting tools. The user end devices with web browsers such as computers, tablets and smart phones can get access directly to our web-based online system with a verified account via Internet.

The structure is illustrated in Fig.1

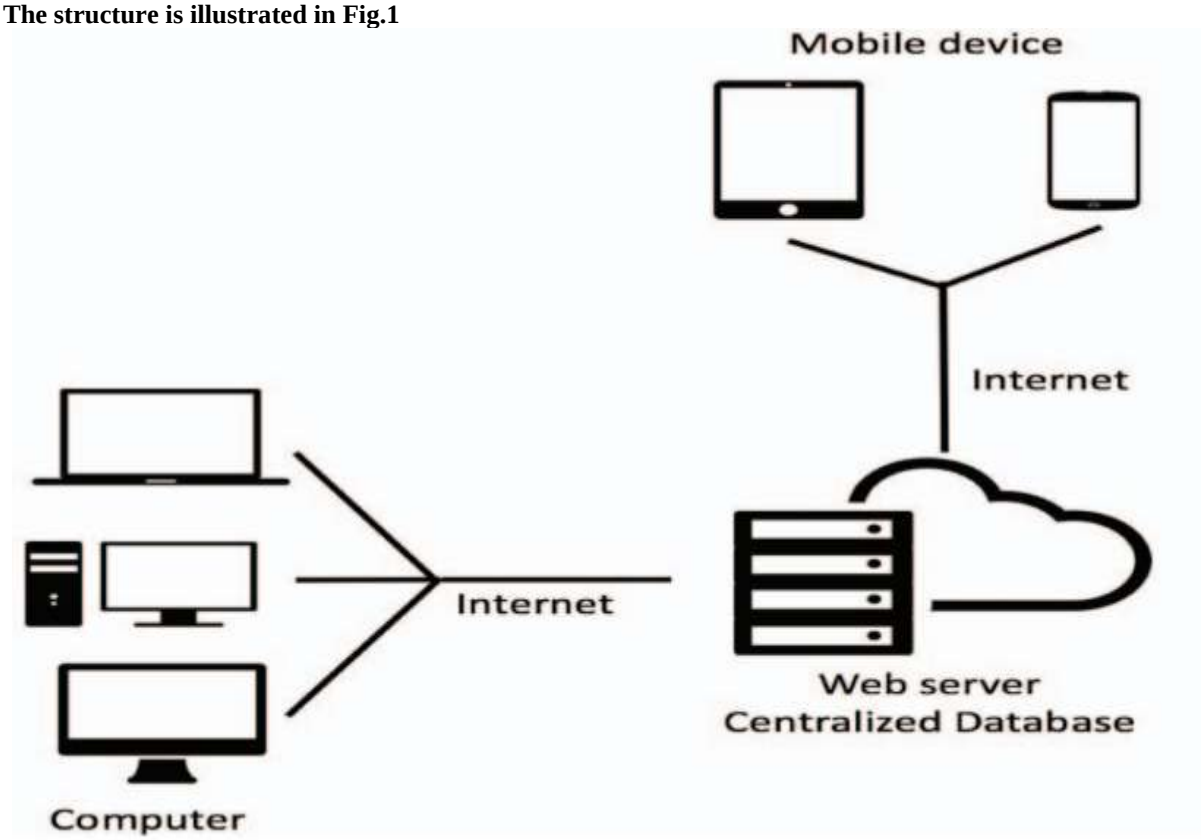


Fig.1 Network Architecture

Key Features

Web – based: Any device that has a web browser can use this system, including computers, smart phones, and tablets. No pre-installation is needed, and no software updates need to be performed on user-end devices. All maintenances and updates are done at the server side. This will increase the accessibility of the system.

Coded in open source: The website is coded in open source language – PHP. As of 2019, 80% of all websites' server-side were coded in PHP and it was the most-used open source software within enterprises. Thus, future maintenance and extension work can be easily performed.

Cross - platform: The system can be accessed from different operating systems, e.g. Windows, Mac OS, Android, iOS, etc.

Automatic report generation: The system will generate beneficiary Invoice. Users are able to see the detailed information about items that have been purchased such as the quantity, unit price and vendor information of each type of items. Accountability will be much improved and all those detailed reports will be generated automatically by the system once the order has been made.

Online stock status: Most updated Stock status can be checked across anywhere and monitored via Internet.

IV. Workflow

In this project there are five modules which works differently based on the user inputs. The modules are

Purchase Stock: In purchase stock, first system checks the supplier exist or not, if exist then update into existing supplier else add that supplier as a fresh supplier. Now again the system checks the product exist or not, if exist then redirect to the payment option else take it as a new product and enter the necessary details and redirect it to the payment entry.

Update Purchase: Stock In Update Purchase Stock, first system checks the purchase number exist or not, if exist then alter the purchase order and make the changes in the product table, and then update date with purchase order in product table. Update the payment entry of that particular purchase.

Delete Purchase: In Delete Purchase, first system checks the purchase number exists or not, if exist then reduce the product quantity in the product table. At the same time check the payment have been made for that particular purchase, if yes then raise a "debit flag" towards that purchase and once the payment is done raise the "credit flag", and if debit is equals to credit make the payment as zero for that particular purchase and delete the purchase and if all the condition fails then purchase does not exist.

Add sale/create invoice: In add sale or create invoice, first system checks the customer exist or not, if does not exist then take it as a fresh customer and fill the necessary details or else raise the invoice as a existing customer. Now deduct the quantity of the product from the product table and raise a receipt for that particular sale. Check while outstanding equals to zero, notify user or admin to take the payment and raise a receipt for that sale. Now the customer has made the payment then update ***"outstanding equals total amount – receipt amount".***

Update sale: In update sale module, system checks if the invoice number exists or not, if yes then update the invoice and make changes in the product table based on the changes in the invoice. Generate receipts for the updated invoice until outstanding is equals to zero or else print Invoice does not exist.

Delete sale: Finally in delete sale module, system checks if the invoice number exist or not, if yes then make changes in the product table. Now if both receipts were raised and payment were made then raise the credit flag of sale and generate payback receipt and delete the receipt and sale invoices

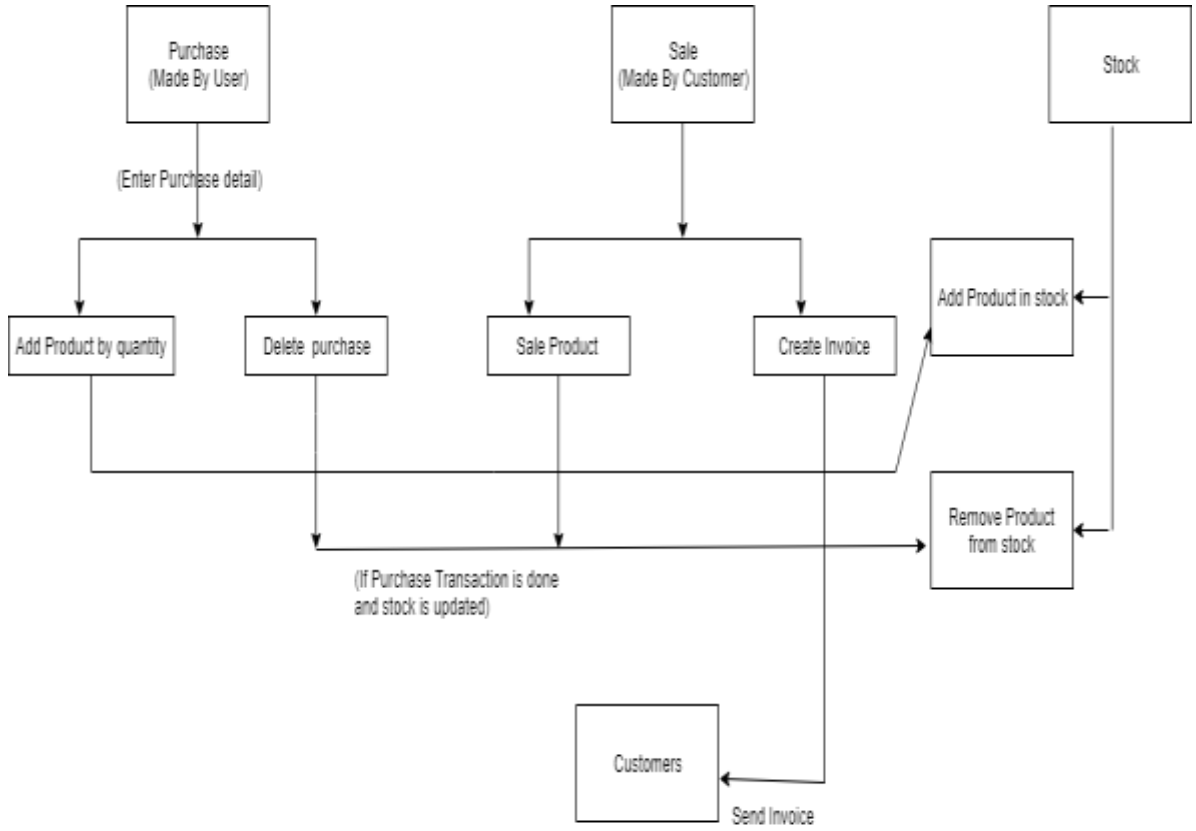


Fig. 2 Workflow

V. Product

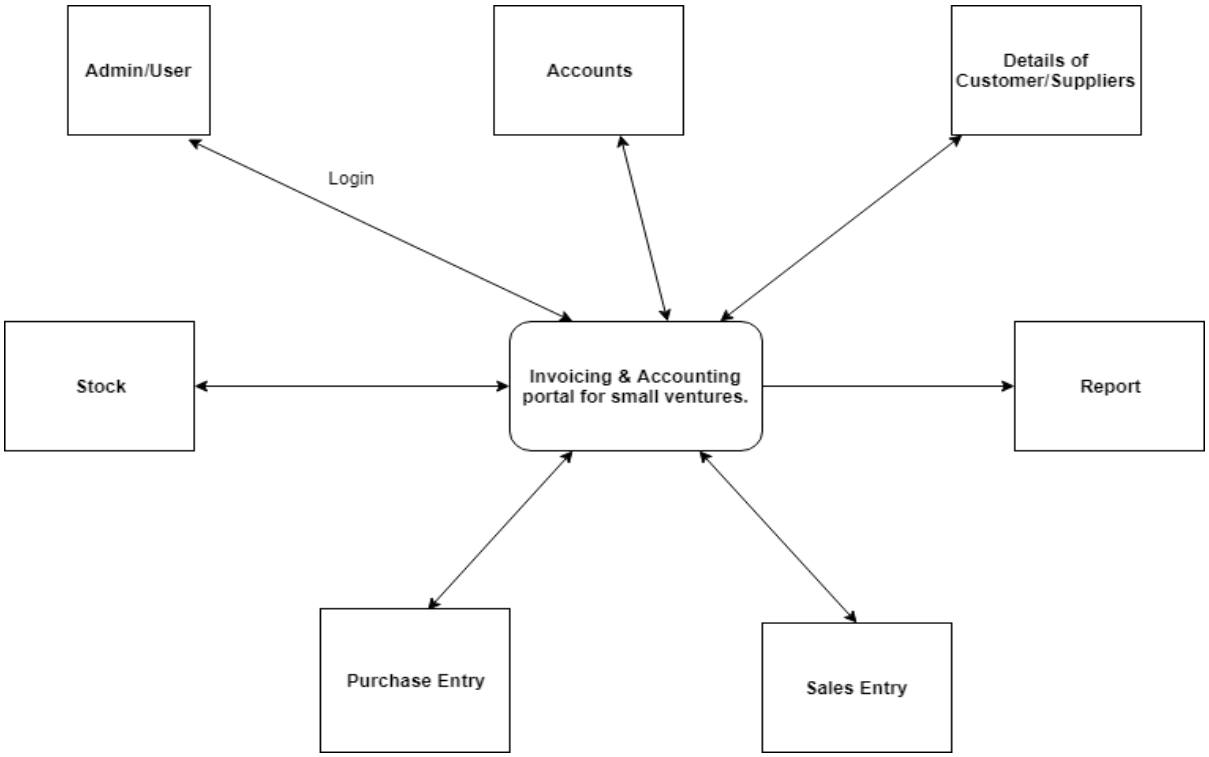
User Interface: We propose to developed user-friendly interface considering the user workflow and user-centered design principle.We identified the minimum set of information needed from the user and minimized the fields that are required for each form as appropriate to reduce errors. Purchase and stock request/update date will be filled automatically by the system. Item information such as unit of measure and description is already coded in the item library. Users can choose items from an existing item lists. User information and signature will be filled automatically using the user login information. We do not need to file bunch of paper for taxation work. Mobile phone user with appropriate authorization can review and update only (limited facility). Users can print invoice online via web browsers with just one click. Even user can also send invoices directly to the client via E-mail.

Most updated status: Updated inventory levels and sourcing requests status can be viewed online. User with appropriate authorization are able to add or delete the requests. The information will be real-time if there is no interruption of internet connection.

Mobile platform: User can add or update the stocks using internet enabled smartphone but mobile user will have very limited facility.Mobile user will have added advantage of Barcode detection from which the mobile user just have to scan the QR code and put the quantity limits to app or update the stocks and all other information related to item will automatically fetched.

Centralized database: All items and clients information in the system will be stored into centralized database. Some tables are connected, Once an item is entered into the system, it automatically gets reflected into respective tables too. We are able to track all information of client and their stock including client resource used to purchase this item, its quantityand payment. Data collected via mobile devices with data collection tools will be uploaded to the centralized database via internet.

Item coding: To eliminate ambiguity and confusion in describingitems, there is need for standard coding for each item. This portal provides the function to facilitate the development of item code library which will grow over time. Standard item coding can also reduce the amount of user inputs. Once an item has been coded into the library, the next time when the same item needs to be ordered, it can be retrieved easily from the database for respective (purchase/sales/stocks) request forms. Users donot need to input the same item information again for the same item more than once.



Block Diagram

VI. Conclusion

In this growing phase of startup and small ventures, all cannot invest in invoicing generator software which is GST complaint as well as which can maintain accounts and other details. We designed a Web-based, multi-platform, centralized database online system. With the proposed system, we will be able to track items in database real-time and collect status data.Thus, our portal can be a boon to these startups as it is cost efficient and user friendly**.**

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