

# AN ONLINE BASED INVENTORY MANAGEMENT SYSTEM IMPLEMENTATION IN PRINTING BUSINESS

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**Abstract:** The aim of this paper is to describe inventory management system software which is used effectively in printing business. In this system the manual activities of printing business are altered into computerized system. The system originates various essential reports automatically. It reduces paperwork, human errors as well as speeds up the whole system. The proposed system is tested at SIGNBD (a Bangladeshi printing company) and gained satisfactory result. It can run in any operating system. Incremental model is used for developing the system. The backend of the system is developed using PHP, MySQL. The front end of the system is designed & developed using html, css, javascript and jQuery.

**Index Terms - Printing, Inventory Management System, Stock, Invoice, Purchase, Sale, Online, System.**

## I. INTRODUCTION

An inventory management system refers to the combination of software and hardware tools where businessperson may keep the records of purchase & sales. It provides a central database that generates various reports and alarms for future demand according to company's requirements. Inventory management has some difficulties in printing business. The traditional system is very puzzling as well as time consuming for the vendors and the clients. It is difficult for keeping records, finding out any transaction, creating bill and generating invoice efficiently in manual system. The owner does not get any information properly without presenting in the business center physically. So, a new system will be needed to solve these difficulties. This inspires us to develop a reliable system for printing business. An online based inventory management system is widely used for maintaining all the operations like purchasing, restocking, sales and checking the stock levels before ordering more products. So this system will be helpful for the businessperson to make wise decisions for his business. He can gather any information from any place in any time about his business having only internet connected device like smartphone, tab, notebook, and laptop, desktop and so on.

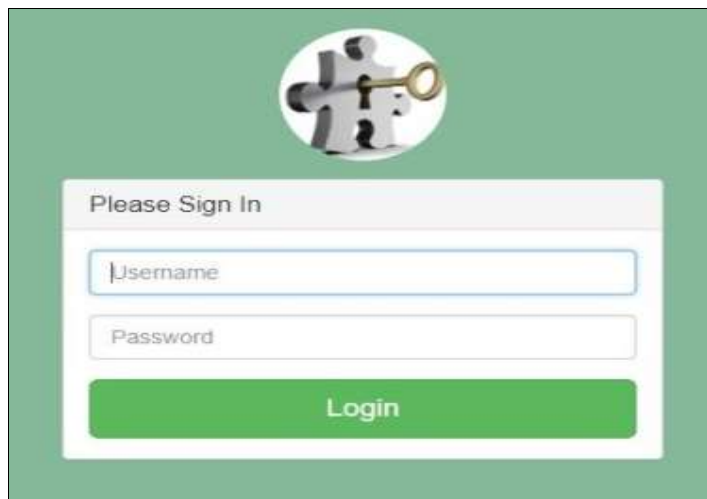
The implementation of this system can contribute a lot to simplify the activities within the company, and it can also improve the efficiency and productivity. If the system is updated in real-time, it will generate various reports automatically. This will save important time of employees and customers.

## II. FEATURES OF THE PROPOSED SYSTEM

- a) *Access facility:* Since it is online based system, user can access from any place. Businessperson can see overall report at a glance. So he can be conscious about his business.
- b) *Categories of product:* All the products like ink, pvc, vinyle, pena, inkjet etc are well categorized.
- c) *Product purchase:* Businessperson can purchase products to maintain the stock.
- d) *Total stock:* Salesperson can see the total stock according to product category. If stock is about to finish, notification will be shown.
- e) *Filtering:* Filtering process is very easier to find out any product.
- f) *Invoice creation:* An invoice number will be created automatically after filling up the form of selling information. This unique number will be needed for further use.
- g) *Smart report:* Necessary reports will be generated automatically like provider wise report, daily purchase report, sales report (daily, weekly, date between, monthly, yearly), profit/loss, challan, defaulter list and so on.
- h) *Print:* Printing icon will be used for printing out invoice, challan, bill and any other reports for the clients.

## III. INTERFACES OF THE PROPOSED SYSTEM

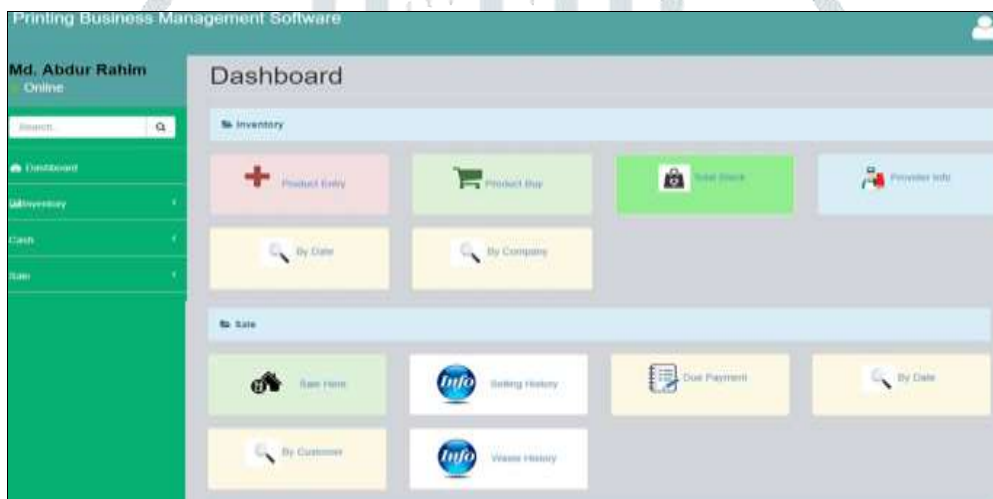
A login form is used to authenticate users for making the system secured from unauthorized access. Fig-1.0 shows the login form for the system.



The image shows a login form titled "Please Sign In" on a green background. At the top center is a circular logo featuring a puzzle piece with a keyhole and a key. Below the title are two input fields: "Username" and "Password". At the bottom is a large green button labeled "Login".

Fig-1.0 login form for inventory management system

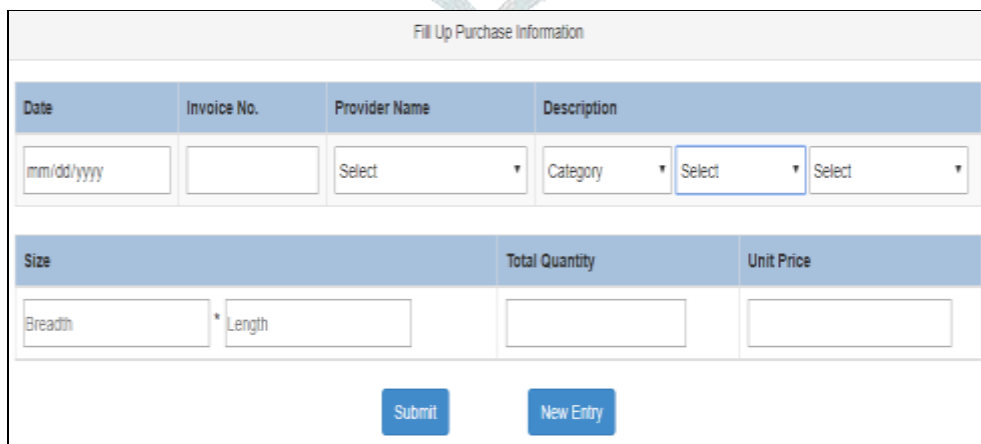
After login to the system using username and password, dashboard of the system is opened. All the menus & modules of dashboard are well organized so that anyone can access the system easily. Fig-2.0 shows the dashboard of the system.



The image displays a dashboard for "Printing Business Management Software". The user is logged in as "Md, Abdur Rahim Online". The dashboard is divided into two main sections: "Inventory" and "Sale". The "Inventory" section includes buttons for "Product Entry", "Product Buy", "Send Stock", and "Provider Info", along with filters "By Date" and "By Company". The "Sale" section includes buttons for "New Home", "Billing History", "Due Payment", and "By Date", along with filters "By Customer" and "Waste History". A sidebar on the left contains a search bar and a menu with items like "Dashboard", "Inventory", "Cash", and "User".

Fig-2.0 dashboard for printing management system

The purchasing products are stored into the database using the form mentioned below. Fig-3.0 shows the entry form for purchasing products.



The image shows a form titled "Fill Up Purchase Information". It contains two tables. The first table has columns: "Date" (with a date picker), "Invoice No." (with a text input), "Provider Name" (with a dropdown menu), and "Description" (with a dropdown menu). The second table has columns: "Size" (with "Breadth" and "Length" sub-inputs), "Total Quantity" (with a text input), and "Unit Price" (with a text input). At the bottom are two buttons: "Submit" and "New Entry".

Fig-3.0 entry form for purchasing products

A report can be generated of individual provider about purchasing detail within fixed date. Fig-4.0 shows the purchasing information.

**Purchasing Info**

Searching Form

Hasan Trade | 02/27/2017 | 11/01/2018 | Search

Purchasing Info. of Hasan Trade

#	Date	Invoice No.	Company Name	Product Description	File Size	Quantity	Unit Price	Total Amount
1	2017-03-07	430	Hasan Trade	Pvc white 280 gsm	8.5*164	2	100	278800.00
2	2017-02-27	8	Hasan Trade	Pvc white 120 gsm	8.5*164	4	4	22304.00
3	2017-02-27	8	Hasan Trade	Pvc white 280 gsm	6.25*164	4	4	16400.00
Total Amount in BDT =								317504.00

Fig-4.0 purchasing information according to provider

All purchasing products are viewed in total stock module. Businessperson can easily understand the present scenario of the stock. Wastage of the product is also displayed in this page. Fig-5.0 shows the Stock in details of the system.

Printing Business Management Software

Md. Abdur Rahim

**Total Stock**

#	Product Description	Quantity	Total Stk	Action
<b>Pvc</b>				
1	white 280 gsm (8.5*164)	2	3024	Chart Waste   Update Stk
2	white 280 gsm (8.5*164)	4	1400	Chart Waste   Update Stk
3	white 120 gsm (8.5*164)	4	1482	Chart Waste   Update Stk
4	white 280 gsm (8.25*164)	6	4000	Chart Waste   Update Stk
5	white 280 gsm (7*164)	2	368	Chart Waste   Update Stk
<b>Waste</b>				
1	Slaker 140 gsm (7*134)	1	1312	Chart Waste   Update Stk
2	Slaker 120 gsm (7*134)	2	804	Chart Waste   Update Stk
3	Slaker 120 gsm (4*134)	3	1992	Chart Waste   Update Stk
4	Slaker 140 gsm (7*134)	2	568	Chart Waste   Update Stk

Fig-5.0 Total Stock in details

The following entry form is used for saving the selling information into a database. If the posted data is not available in the stock, a message will be shown in pop up box. Here, every input field is verified by proper validation. So, inconsistent data is not allowed. Fig-6.0 shows the entry form for sale.

Fill Up Sale Info

**Customer Info:**

Name | Contact No | Email | Address

**Product Description**

Select Product | With Lot | Length | Breadth | Quantity | Price

Submit | New Entry

Order Slip | Invoice Create | Make Order | Payment Receive | Update Sale | Order List | Daily Search

Fig-6.0 entry form for sale

An invoice will be generated automatically after completing the sale system. Fig-7.0 shows the invoice of selling products.

Invoice/Bill						
Invoice #:	1702001			Date:	2017-02-27	
Customer Name:	Hasan Trade			Sold by:	Rafal Ara	
Contact No.:	01750472587					
E-mail:						
Address:	mrahim@gmail.com					
Sl #	Description	Size	Qty	Total Sft	Unit Price	Amount
1	Pvc white with Vinyl Sticker	3*8	2	48	80.00	3840.00
2	Pvc white	4*3	4	48	100.00	4800.00
					<b>Total Amount</b>	<b>8640.00</b>
					<b>Advance</b>	<b>600.00</b>
					<b>Balance</b>	<b>8010.00</b>
<b>In Word (Grand Total) = eight thousand ten tk only.</b>						
Please pay <b>Cash</b> or arrange to pay by <b>Account Payee Cheque</b> in favour of <b>Sign bd</b> .						
For <b>Sign bd</b>				Received by		

Fig-7.0 invoice in details

#### IV. CONCLUSION

This paper represents the online based system software for printing business. It is a reliable system for inventory management. This system lessens the difficulties related to inventories. It augments productivity & sales. It also minimizes the cost and increases profitability. Invalid data is not allowed to the system. The representation of cash flow is attached effectively. There is no option to order through online for the clients in this system. So, ordering system by the clients through online will be developed in near future. This proposed system can be used in all printing business.

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