RETAILER-ERP MODEL

UJWAL SAMBHAJI GAIKWAD[1], AKSHAY PRALHAD SURWASE[2], SARIKA PATIL[3]

Department of Computer Engineering, Keystone School of Engineering. Savitribai Phule Pune University, Pune, India.[1,2,3]

gaikwadujwal847@gmail.com, akshaysurwase93@gmail.com, psarika2484@gmail.com

---***---

Abstract: Enterprise resource planning (ERP) is the integrated management of main business processes, often in real time and mediated by software and technology.

ERP is usually referred to as a category of business management software-typically a suite of integrated applications-that an organization can use to collect, store, manage, and interpret data from many business activities.

ERP provides an integrated and continuously updated view of core business processes using common databases maintained by a database management system. ERP systems track business resources-cash, raw materials, production capacity-and the status of business commitments: orders, purchase orders, and payroll.

The applications that make up the system share data across various departments (manufacturing, purchasing, sales, accounting, etc.) that provide the data. ERP facilitates information flow between all business functions and manages connections to outside stakeholders.

The ERP system integrates varied organizational systems and facilitates error-free transactions and production, thereby enhancing the organization's efficiency. However, developing an ERP system differs from traditional system development. ERP systems run on a variety of computer hardware and network configurations, typically using a database as an information repository.

Keywords: - *Component, formatting, style, styling, insert.*

--- ***---

I INTRODUCTION

In this Era of Technologies, a fully secured web-based platform is a serious concern in case of increase in data lost problems, as everywhere using the old ways to store the data and transactions are books and register. This technology offers a safest way for a complete business platform.

The old methods are now replaced by a Web based platform called it as "Spring Ware-ERP".

It is a platform, we can use in a various business-like electronic shop, grocery shop, and many more E-Commerce businesses.

As we are not keeping it as a simple save, get, and calculation platform.

We are giving some features for a user/client.

1. Employee management:

Employees are one of the most important part of any e-commerce businesses.

So, we added a feature i.e., Employee Management.

Employee Management System is a distributed application, developed to maintain the details of employees working in any organization.

The objective of this feature is to provide a comprehensive approach towards the management of employee information.

In employee management, system admin can add employees' details, update employee details, delete employee details and view all the employees and if they want to view a particular employee information, so this feature is added.

Whenever system admin add any employee, then employee receive a message containing their password, which can be used further to access or to control the ERP-Module.

For employees we give a feature i.e., update profile.

This feature accessed by both system admin and employee.

2. Item Management:

As we are developing a web-application whose primary goal is to sell the items.

Therefore, item management is major factor in ERP-Module.

For managing the item, we introduced some more feature i.e.,

A. Item Pricing management

Item pricing is the important factor while managing items. As there are number of items to sell at store, for each time check particular price of item is waste of time.

In this feature, we arrange all the items by their prices, their item number so it is easy to retrieve the information of that particular item.

B. Offer management

After item, pricing management there is feature called it as an offer management.

As we all know about online shopping apps like amazon, flip kart etc. They provide some offers on particular purchases.

So, on that basis we included offer management.

C. Deal management

It is a feature, where we provide deals to customers.

3. Delivery Management:

Nowadays, technologies are rising day by day. As the ERP model is used in store level.

So, there will be another way to purchase item. Hence, we introduce the mobile application i.e., Veggie Marts

With the help of this application, user can order item online.

If a user order items online, so delivery management should be there.

In this case we introduce feature i.e., Delivery Management

For delivery, purpose there is another application for delivery boy.

In delivery boy application, we give feature

1. Current Orders

2. Remaining Orders

3. Delivered Orders

4. Sales Order Management:

Our next feature is Sales order management. It controlled or handled only at store level or store location.

The sales order confirms the terms of a transaction between a buyer and seller. The seller generates the order, often in response to a purchase order. The seller may send this document to the customer or rely on it solely for internal use. The sales order details the quantity, price, delivery period, and more.

5.Purchase Order Management:

As the application is used to sell the items on online platform as well as store level.

In e-commerce businesses, stock management is a major factor.

In such a business, a provider provides stocks.

Therefore, the user/employee have to purchase it hence we introduced new feature i.e., purchase order management.

In this feature user/employee can purchase some items from some providers and stores it.

A purchase order is used by a buyer to place an order and is issued before delivery. An invoice is issued by a seller using invoicing software after an order is delivered. It defines the amount the buyer owes for the purchased goods and the date by which the buyer needs to pay.

6.Reports:

Reports is a concept in which system admin/employee or both can check all the transactions of that store.

Report should be

Date wise, item wise, delivery status wise, store wise, customer wise, employee wise.

7.Role Management:

There are many different ways to build and define functional team roles. It could simply be a team with representatives from each of the core functions – finance, manufacturing, and technical. In smaller environments, this may be just one person from each discipline. In larger environments, each of these disciplines might have a representative from different areas, such as A/P, A/R, collections, and so on from finance. The key is to involve individuals who can clearly define and explain the current process and future requirement needs for their core area. This team will also be the trainers for the folks in their respective departments, so be sure to choose members who have this ability.

8.Vendor Management:

Vendor management is a term that describes the processes organizations use to manage their suppliers, who are also known as vendors. Vendor management includes activities such as selecting vendors, negotiating contracts, controlling costs, reducing vendor-related risks and ensuring service delivery.

The vendors used by a company will vary considerably depending on the nature of the organization, and could include companies as diverse as seafood suppliers, IT vendors, cleaners and marketing consultants. Vendors can also range in size from sole traders to large organizations.

II. LITERATURE SURVEY

This article is a review of work published in various journals on the topics of Enterprise Resource Planning (ERP) between January 2000 and May 2006. A total of 313 articles from 79 journals are reviewed. The article intends to serve three goals. First, it will be useful to researchers who are interested in understanding what kinds of questions have been addressed in the area of ERP. Second, the article will be a useful resource for searching for research topics. Third, it will serve as a

comprehensive bibliography of the articles published during the period. The literature is analysed under six major themes and nine sub-themes.

Keywords: Enterprise Resource Planning; ERP; survey; journal articles.

Biographical notes: Young B. Moon is on the Faculty of Mechanical and Aerospace Engineering at Syracuse University, USA. He is the Director of the Institute for Manufacturing Enterprises. He holds a PhD degree from Purdue University. His professional interests include enterprise systems, product realisation processes and systems, and machine learning

III. DETAILED DESIGN DOCUMENT

Enterprise resource planning (ERP) is defined as the ability to deliver an integrated suite of business applications. ERP tools share a common process and data model, covering broad and deep operational end-to-end processes, such as those found in finance, HR, distribution, manufacturing, service and the supply chain.

ERP applications automate and support a range of administrative and operational business processes across multiple industries, including line of business, customer-facing, administrative and the asset management aspects of an enterprise. ERP deployments are complex and expensive endeavours, and some organizations struggle to define the business benefits.

Look for business benefits in four areas: a catalyst for business innovation, a platform for business process efficiency and IT cost savings. Most enterprises focus on the last two areas, because they are the easiest to quantify; however, the first two areas often have the most significant impact on the enterprise.

1. ARCHITECTURAL DESIGN:

When explaining ERP architecture, one must understand what ERP systems are comprised of in terms of their structure. The server may be centralized; however, many users are in multiple locations in order to utilize the ERP systems. This ERP architecture is thus on that server maintaining applications and databases at the same time. This is how ERP architecture can be understood. Enterprise Resource Planning systems are intended to utilize several applications, as well as any data contained within. The ERP systems can be understood in that, there are systems known as two-tiered and three-tiered. Two-tiered systems are working two ERP systems; corporate and division.

This two-tiered system is separate, allowing for two different ERP systems operating separately. Three-tiered systems are where the client is also in utilization of ERP as well. Understanding this is not complicated when considered

carefully.

There are different levels of access between these ERP 'levels'. One level may have different access than another level, which creates the two and three-tiered systems within what would be considered as the entirety of the system.
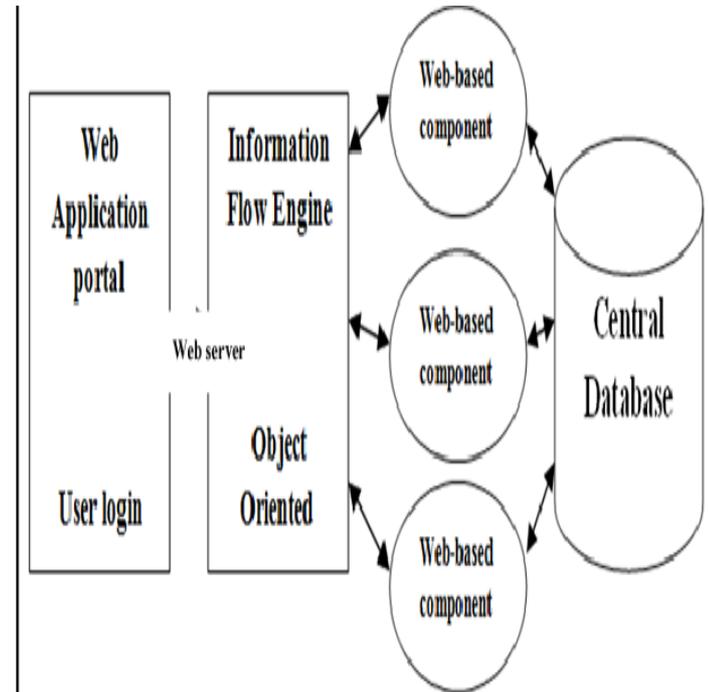
2. DATA DESIGN (USING APPENDICES A AND B)

2.1 Internal software data structure

Use SQL Server for database.

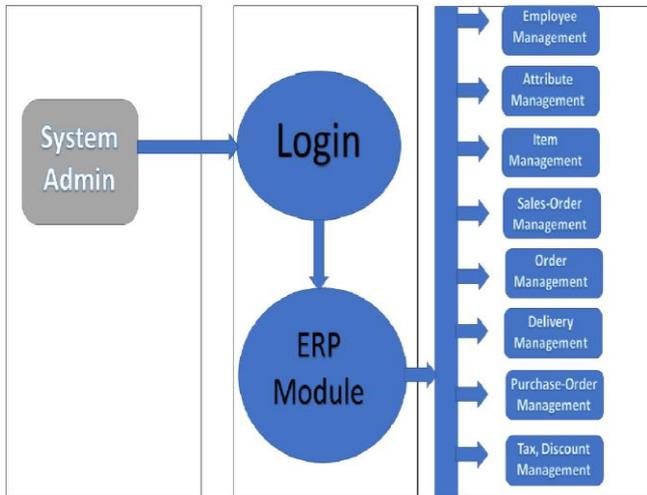Use Java for coding of our software.

2.2 Database description

MySQL is an open-source relational database management system (RDBMS). "SQL" is the abbreviation for Structured Query Language. A relational database organizes data into one or more data tables in which data types may be related to each other; these relations help structure the data. SQL is a language programmer use to create, modify and extract data from the relational database, as well as control user access to the database. In addition to relational databases and SQL, an RDBMS like MySQL works with an operating system to implement a relational database in a computer's storage system, manages users, allows for network access and facilitates testing database integrity and creation of backups.

MySQL has stand-alone clients that allow users to interact directly with a MySQL database using SQL, but more often MySQL is used with other programs to implement applications that need relational database capability.
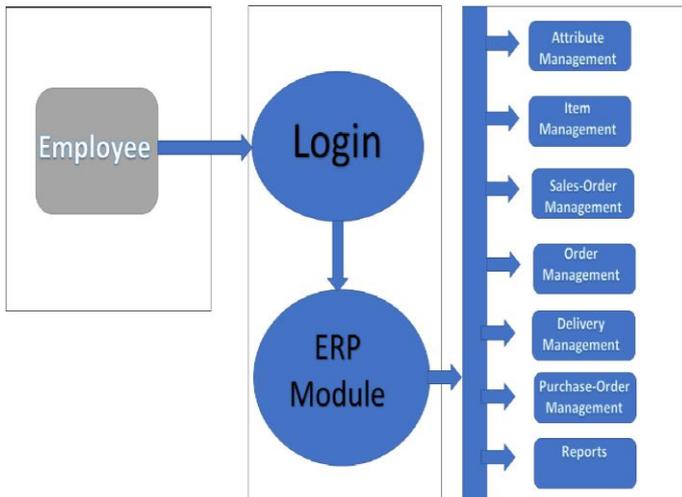
3.COMPONENT DESIGN

3.1Class Diagram

System Admin:

Employee:

IV CONCLUSION

The utilization of Enterprise Resource Planning software allows companies to decrease the time it takes the company to get paid for its goods or services after the sale. Employing an ERP system allows for increased cash flow. The utilization of the ERP system's integrated system architecture removes the necessity for multiple, different systems to be used within the company and consolidates to the same system across multiple geographies. Different locations can use and see the same data regardless of the physical geography and eliminates the knees for storing redundant data in multiple physical locations. The ERP system also eliminates the requirement for each location to upload or extract data to and from the central data storage site. ERP systems increase productivity by integrating data and processes across multiple departments and location which allows our company to move product faster, process orders quicker, invoice customers more aptly and reconcile shipments sooner. Information flow is the lifeblood of any company. Utilizing an ERP system allows access to a multitude of company information. The ERP system also tends to have more accuracy and relevancy because it all comes from one source, not multiple sources. The ERP system will provide the company various reporting tools and make generating time sensitive and up-to-date information faster and more user-friendly.