Smart Industry ERP

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Abstract — As an electronic business environment changes more rapidly under the globalization, even small and medium size companies also change their business. With enterprises becoming bigger and bigger, the legacy business systems may not be flexible enough to adapt this change and the discordance between business and information systems in their organization may occur [2]. Therefore, recently most companies use an Enterprise Resource Planning (ERP) system for improving core competency. To be considered an ERP system, a software package must provide the function of at least two systems. For example, a software package that provides both payroll and accounting functions could technically be considered an ERP software-package.

Keywords— *Resource ERP, CRM, MRP, DBMS, MVC, Windows, C#, Billing, CrReport.*

I. INTRODUCTION

ERP as "an accounting-oriented information system for identifying and planning the enterprise-wide resources needed to take, make, ship, and account for customer orders". Gartner Group describes ERP as "a set of applications designed to bring business functions into balance and represents the next generation of business systems". On the other hand, ERP is a comprehensive packaged software solution that aim for total integration of all business functional areas. Thus, the authors can conclude that an ERP is the generic name of this new class of packaged application software for enterprise integration under electronic business environment. The term, ERP has been introduced in the early 1990s as the successor to Materials Requirement Planning II, itself a successor to the Materials Requirements Planning software that results from requirements for greater control and efficiency in manufacturing systems. While ERP has its origins in manufacturing and production planning systems, the scope of ERP has expanded in the mid-1990s to include other functions: order management, financial management, production control, quality control, asset management and human resources management. The concept of ERP could be named as "back-office" functions. Recently, the functional scope of ERP systems has further expanded to include various functions such as Electronic Commerce, Supply Chain Management, and Customer Relation Management.

A. Motivation of the Project

Due to this rapid growth of Erp and digital systems, it is becoming very popular in today's world. But still it is not the best choice of everyone, as sometimes they don't get, what they exactly expect. So here, we stood up for them, for those who don't get satisfaction, and have to waste their time by going manual for their need. It is a portal where they would get everything, which they want rather than to go manual office work. Here he can search where his product is available and at what price. He will also get notifications through application about different updates and about inventory. This will not only save his time but also energy. After finalizing his product, he can also manage human resource.

B. Problem Definition

Basically, this project deals with the ERP system. User has account. This web application send this request to Data Base. The User access that requested information and respond to user requirement with available information.

II. LITERATURE SURVEY

A. Introduction

The authors have recognized the lack of the literature associated with the conceptual ERP models based on object-oriented technology. Object-oriented technology has been gained attention to overcome software crisis. This means that currently, object-oriented technology can be used to develop business information systems, including ERP systems. Object-oriented modeling implies analysis and design phase by using object-oriented technology. Object-oriented modeling has proven to be an excellent technique for modeling business processes in a company. Recently, business modeling is a new area for object-oriented modeling and has generated a lot of interests. In general, a model is an abstraction of a system, specifying the modeled system from a certain point and a certain level of abstraction. Modeling a complex system is an extensive and complicate task. Ideally, the authors suppose that entire system can be described in a single diagram. A single diagram clearly defines whole system unambiguously, and is easy to communicate and understand because whole system can be identified at one time. However, it is usually impossible or very difficult to describe overall system in a single diagram because most of business information systems are very large and complicate. Thus, only a single diagram cannot capture all information needed to describe an entire system. When the authors are modeling a system, the system can be described with a number of different aspects: functional, nonfunctional, and organizational. Therefore, ERP systems

may be described in several views, which each view represents a projection of the complete system description, showing a particular aspect of the system. In UML, each view is described in a number of diagrams that emphasize a particular aspect of the system. UML is an industry standard modeling language adopted by Object Management Group in 1977. UML is a modeling language intended to describe models of systems – real world and software – based on object concept. Since the goal of UML is to describe any type of systems, UML can be used to model systems, the range of which is very board. UML consists of two vital tools: annotation and a meta-model. The notation is a set of diagramming syntax, which lets you think about and convey your analysis and design. The meta-model is the definition of the notation.

B. *Existing System*

Manual Data and Information is maintaining in industry. Paper work is maintained using ledger books. Hand written Billing. Decentralized data, manual data sharing and reports

No actual current information regarding inventory and HR.

C. *Proposed System*

Desktop Application with client-server architecture . Automated reports, backup. ERP, CRM, Inventory. Instant Billing.

D. *Advantages*

Integration among different functional areas to ensure proper communication, productivity and efficiency Design engineering (how to best make the product) Order tracking, from acceptance through fulfillment The revenue cycle, from invoice through cash receipt Managing inter-dependencies of complex processes bill of materials

Tracking the three-way match between purchase orders (what was ordered), inventory receipts (what arrived), and costing (what the vendor invoiced)

The accounting for all of these tasks: tracking the revenue, cost and profit at a granular level.

III. PROPOSED SYSTEM

We are going to design a desktop system which contains following features to manage and maintain organization using software package. This is common to retailers, where even a mid-sized retailer will have a discrete Point-of-Sale (POS) product and financials application, then a series of specialized applications to handle business requirements such as warehouse management, staff roistering, merchandising and logistics.

Ideally, ERP delivers a single database that contains all data for the software modules, which would include:

- **Manufacturing** Engineering, bills of material, scheduling, capacity, workflow management, quality control, cost management, manufacturing process, manufacturing projects, manufacturing flow
- **Supply chain management** Order to cash, inventory, order entry, purchasing, product configurator, supply chain planning, supplier scheduling, inspection of goods, claim processing, commission calculation
- **Financials** General ledger, cash management, accounts payable, accounts receivable, fixed assets
- **Project management** Costing, billing, time and expense, performance units, activity management
- **Human resources** Human resources, payroll, training, time and attendance, roistering, benefits
- **Customer relationship management** - Sales and marketing, commissions, service, customer contact and call center support
- **Data warehouse** - and various self-service interfaces for customers, suppliers, and employees
- **Access control** - user privilege as per authority levels for process execution
- **Customization** - to meet the extension, addition, change in process flow

A. *Project Scope*

This system can be used for small industry. Inventory management can be done using this application. Different features like CRM, ERP, Accounting, Billing, HR Management, audit base data can be generated by this application. Centralized database and Data Management is done by sql server R2.

B. *User class and characteristics*

User: Register him/herself in system with personal and credential account. after successfully login, ERP system is activated and user can access all features and functions of this system.

Database: Daily transaction and inventory information.

C. *Assumptions And Dependencies*

Assumptions

- User should be install application.
- User details should be matched with the database.
- Store all data.

Dependencies

- Download and install application.

IV. FLOWCHART

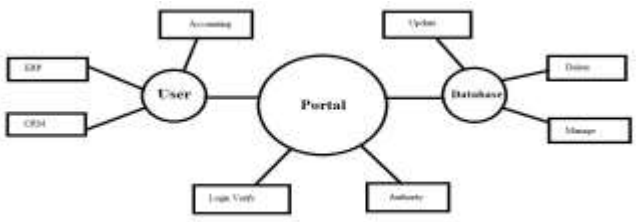

Fig DFD Diagram

V. CONCLUSION AND FUTURE SCOPE

An ERP implementation is a huge commitment from the organization, causing millions of rupees and can take up to several years to complete. However, when it is integrated successfully, the benefits can be enormous. A well-designed and properly integrated ERP system allows the most updated information to be shared among various business functions, thereby resulting in tremendous cost savings and increased efficiency. When making the implementation decision, management must considered fundamental issues such as the organization's readiness for a dramatic change, the degree of integration, key business processes to be implemented, e-business applications to be included, and whether or not new hardware need to be acquired.

1) Implementing the same system for different domains like health care, medical.
2) Providing web base system.
3) Live order tracking.

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