**BRIGHTPEARL-AI ERP SYSTEM**

**ABSTRACT**

A business has several critical areas that need to be managed well. This system applies integrated solutions to streamline, automate and link the different departments and divisions of the organization such as HR, IT, finance, sales, and customer service for Groovy Exporters. The system serves as the hub whose network of solutions pump vital nutrients to all areas and functions of the organization to keep them in tune and in good working condition.

This system is generally classified as an enterprise application designed to meet the more complex and heavy duty functions of big businesses. Often, large corporations have their own IT departments or dedicated teams that utilize the system to analyze big data and address the needs of multiple departments. However, small business ERP applications have come about to cater to the lightweight business management requirements of startups and growing companies. This type of ERP solution is usually customized to fit smaller business operations, and match specific business industry. In a survey by Panorama Consulting, 46% of respondents cite “best functional fit” as top reason for selecting particular ERP software.

**STUDY ON PROPOSED SYSTEM**

Every Organization has many managers, who are responsible for all the activities in the organization. These managers manage different aspects of the organizational management issues, such as manufacturing, production, Sales, etc; one such essential management issue is HR.

As years progressed, the approach of the management changed towards the human capital. Now Hierarchical Organization is part of every organization, and has its own identity and importance. In this scenario, the bigger organizations need to put lot of effort in the management of human Resources, as they are underlying capital asset to the organization. In doing so, along with times, the Organization Information changed from its basic operations to more strategic approach.

**FEATURES**

* Finding ground level employee performance by the topmost manager.
* Maintenance of profile details of the employees, and retrievals as and when required.
* Overall & detailed view of the organization hierarchy, which is very much essential in making effective decisions.
* Monitoring production and sales.
* Judging the potentiality of the employees.
* Maintenance of the data when the organization has many branches spread over wide geographical area.
* Accessing one branch information from another branch.
* Future planning issues based on the current HR information.
* Vacancy situations and their priority /effect on the organizations performance.

**DEFINING THE PROBLEM**

* The physical implementation has no fixed rules.
* Implementing the concept little difficult.
* All records are maintained and managed manually.
* Report generation takes more time to complete.
* No logics are implemented for monitor sales.
* No automation found for report the inventory level.

**DEVELOPING SOLUTION STRATEGIES**

* Simplifying the report generation process by applying advanced query's.
* Easy password recovery for admin users registered with email address.
* Engage stakeholders to craft and embrace the future vision.
* Compare current performance to product, market and organizational lifecycle trends.
* Develop consensus and commitment for goal achievement.
* Go beyond simply outlining goals and objectives to identify the organizational and funding strategies to achieve them.
* Assess the capability to implement the plan and provide capacity building support to ensure that the appropriate resources and systems are in place to ensure successful implementation.
* Organize board committees to understand their role to support plan implementation.

**MODULE DESCRIPTION:**

There are two main modules in this application admin module and employee module.

**Admin Module:** Admin will have permission to approve or delete the records from employees. After approval from admin data’s are moved to master table. Admin will also update the record.

**Employee Module:** Employees have only rights to enter the daily data. He will not have access to database.

**SYSTEM SPECIFICATION**

# APPLICATION SPECIFICATION

This application based on 3-tier architecture.

* A client, i.e. the computer which requests the resources, equipped with a user interface (usually a web browser) for presentation purposes
* The application server (also called middleware), whose task it is to provide the requested resources, but by calling on another server
* The data server, which provides the application server with the data it requires

**SOFTWARE ENVIRONMENT**

**IIS 10 SERVER**

Internet Information Services (IIS, formerly Internet Information Server) is an extensible web server created by Microsoft for use with the Windows NT family. IIS supports HTTP, HTTP/2, HTTPS, FTP, FTPS, SMTP and NNTP. It has been an integral part of the Windows NT family since Windows NT 4.0, though it may be absent from some editions (e.g. Windows XP Home edition), and is not active by default.

**FRONT END**

**ASP .Net MVC 5**

The ASP.NET MVC is a web application framework developed by Microsoft, which implements the model–view–controller (MVC) pattern. It is open-source software, apart from the ASP.NET Web Forms component which is proprietary.

In the later versions of ASP.NET, ASP.NET MVC, ASP.NET Web API, and ASP.NET Web Pages (a platform using only Razor pages) will merge into a unified MVC.

**BACK END**

**Microsoft SQL Server 2012**

Microsoft SQL Server is a relational database management system developed by Microsoft. As a database server, it is a software product with the primary function of storing and retrieving data as requested by other software applications—which may run either on the same computer or on another computer across a network (including the Internet).

Microsoft markets at least a dozen different editions of Microsoft SQL Server, aimed at different audiences and for workloads ranging from small single-machine applications to large Internet-facing applications with many concurrent users.

**HARDWARE SPECIFICATION**

PROCESSOR : Pentium IV 1000MHZ or above

RAM : 2GB RAM

DISK : 200MB Free Hard disk space

MONITOR : STD Color Monitor

NETWORK : Network interface card or Modem (For Remote Sources)

IO DEVICES : Mouse and Keyboard

**SOFTWARE SPECIFICATION**

OPERATING SYSTEM : Windows 7/8/10

WEB BROWSER : Firefox/ Chrome

FRONT-END : ASP .Net MVC 5

BACK-END : MS SQL server 2012

**COST ESTMATION AND SCHEDULING**

|  |  |
| --- | --- |
| **DESCRIPTION OF TASK** | **NO OF DAYS** |
| Abstract | 2 |
| Problem Statement | 2 |
| System Requirements | 2 |
| Design | 15 |
| Coding | 30 |
| Implementation | 3 |
| Testing | 4 |
| Reports | 11 |
| Deployment | 2 |
| Scope | 1 |
| **Total** | 72 days |

Software cost is related to many variables such as Human, Technical, Environment and Effort applied to develop it. To estimate the effort needed for the software project, Function Point Analysis (FPA) and COCOMO model are used to predict the size and cost of developing the system. Function points are derived using an empirical relationship based on countable measures of software’s information domain and assessments of software complexity. COCOMO, **Co**nstructive **Co**st **Mo**del, is a good measure for estimating the number of person-months required to develop software. COCOMO consists of a hierarchy of three increasingly detailed and accurate forms. The first level, Basic COCOMO is good for quick, early, rough order of magnitude estimates of software costs, but its accuracy is limited due to its lack of factors to account for difference in project attributes (Cost Drivers).

The COCOMO cost estimation formula is

**Effort = a1 x (KLOC)a2PM**

Where, E = effort in person-months. The effort measure helps to make estimates like the number of person months that will take for the project to execute. The size estimate is converted in to effort estimates.

**a1**= 3.0 in semidetached mode

**a2**= 1.12 in semidetached mode

Size= (KLOC)/1000=2

Thus the effort for making this system is **8 PM** (Persons Month)

**Tdev = b1 x (Effort)b2Months**

Where

Tdev= Development time in chronological months

**b1**= 2.5 in semi-detached mode

**b2**= 0.38 in semi-detached mode

Thus the development time for making this system is **6 Months**

Cost required to develop the product = 6 \* 8,000

The total cost required to develop the product **= Rs. 48,000/-**

**FINAL OUTLINE OF THE PROPOSED SYSTEM**

In the existing system, there is no proper automation found all entries are done manually. In the proposed system most functions are automated and the users can generate reports and monitor the sales of the products easily. Due to automation process time can be saved and information storage will be highly confidential and prevented from loss. Hence, the proposed system will be helpful for the users. Artificial Intelligence can provide simpler interaction between the system and user. And also it reduces the human effort and expenditures.