Software Requirements and Estimation

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Abstract –

The Software Requirements and Estimation System is a Web based application which supports the planning of human resources in a small or medium enterprise with a project oriented business.

The objective is in the biggest organizations will use the website for the purpose of Timesheets entry system. Every employee will have a separate login to enter into the system and enter the timesheets.

Timesheets may record the start and end time of tasks, or just the duration. It may contain a detailed breakdown of tasks accomplished throughout the project or program. This information may be used for payroll, client billing, and increasingly for project costing, estimation, tracking and management

Time tracking can lower costs in 3 ways: by making payroll processing more efficient, by making costs visible so you can lower them, and by automating billing & invoicing.

Time tracking can increase revenue through automating billing, which tends to make it easier for a company to get correct invoices out for all hours worked by consulting staff. This speeds up payment and eliminates the hassles of 'dropping' bills.

In the project management world, timesheets can also be used to build a body of knowledge about how much effort tasks take to develop. For example if developing a training plan has historically taken a month, then it can be assumed that creating a new one will take a month.

Also most timesheet software has the ability to track resource costs and project expenses to allow for better future budgeting.

For the HR function, the time spent on activities by individuals can be analyzed over a period of time and categorized into broad types. Based on the outcome roles could be realigned.

1. INTRODUCTION

PURPOSE OF THE SYSTEM

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PROBLEMS IN THE EXISTING SYSTEM

Today's companies have multiple corporate project initiatives, multiple hardware and software vendors, a diverse range of partnerships and alliances, a complex project environment, and limited project resources. Trying to maintain control over all projects in the corporate project portfolio can be a huge challenge. Issues and communication problems can span multiple projects and can delay projects for weeks and months and can turn into lost revenue, a lost competitive advantage, and an unhappy client.

- The existing system is a manual system. Here the user's needs to save his information in the form of excel sheets or Disk Drives.

- There is no sharing is possible if the data is in the form of paper or Disk drives.

- The manual system gives us very less security for saving data; some data may be lost due to mismanagement.

- It's a limited system and fewer users friendly.

- Searching of particular information is very critical it takes lot of time.

- It is very critical to maintain records manually for physical devices of a computer. Because organizations contains computers on different configurations.

- It is a tedious job to maintain more no of projects at time manually in the companies.

- Every project has to be split into no of modules; it is very difficult to find which employees are working in which module.

- There is no way to access the system from the side of any client.

SOLUTION OF THESE PROBLEMS

The development of this new system contains the following activities, which try to automate the entire process keeping in the view of database integration approach.

- User Friendliness is provided in the application with various controls provided by system Rich User Interface.

- The system makes the overall project management much easier and flexible.

- It can be accessed over the Intranet.

- The user information can be stored in centralized database which can be maintained by the system.

- This can give the good security for user information because data is not in client machine.

- Authentication is provided for this application only registered Users can access.

- There is no risk of data management at any level while the project development is under process.

- Categorization of computers in the database make easy to identify the various computer peripherals.

- Client also having facility to log into the system, and verity his project status.

STUDY OF THE SYSTEM

In the flexibility of uses the interface has been developed a graphics concepts in mind, associated through a browser interface. The GUI's at the top level has been categorized as follows

1. Administrative User Interface Design

2. The Operational and Generic User Interface Design

The administrative user interface concentrates on the consistent information that is practically, part of the organizational activities and which needs proper authentication for the data collection. The Interface helps the administration with all the transactional states like data insertion, data deletion, and data updating along with executive data search capabilities.

The operational and generic user interface helps the users upon the system in transactions through the existing data and required services. The operational user interface also helps the ordinary users in managing their own information helps the ordinary users in managing their own information in a customized manner as per the assisted flexibilities.

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2. OVERVIEW OF THE SYSTEM

Module Description

Administrator Add the different Project IDs, Project Names, Project Start Date, Project End Date details into the System.

- Accept the registration of Reporting Manager.

- Assign Project or Projects to a Reporting Manager.
- Should able to generate Report of Project-based, Reporting Manager based, Employee based, Monthly and Yearly reports.
- Should able to Search for an Employee for Professional details, Project for Start Date & End Date, Reporting Manager for his Engagement details (like Project Assigned, Start Date, End Date, No. of Employees in that Project, etc.)

Reporting Manager

- Should able to register to the site with Experience details.
- Should able to Reset Password.
- Should able to login to the system.
- Will accept the registration of an Employee
- Adds him into a Project with different Roles like Tester, Developer, Sr. Developer, Team Leader, etc.
- Should Accept/Reject the Timesheets entered by the Employee.
- Should able to generate Report of Project-based, Employee based, Monthly and Yearly reports.
- Should able to Search for an Employee for Professional details, Project for Start Date & End Date, etc.

Employee

- Should register to the site with his Experience details in the Current Company, previous Companies.
- Should able to Reset Password.
- Should provide the Roles interested in the coming up Projects.
- Should able to login to the system for time sheet entry. They should able to enter timesheet once a Project is assigned and under a Project some tasks were added by Reporting Manager to him.

- Should able to see the Timesheets Rejected by the Reporting Manager.
- Should able to see the Report of Monthly or scheduled dates Timesheets of the employee.

Authentication: This module provides security to the application. Every user should enter correct user name and password to proceed. This request will goes to database and check the user existing. If you entered wrong user name and password then it prompts you "Incorrect Username or Password…"

Communication

This module is for Message Center. It is same for all Employees in company for intra mailing facility provided for each user.

Inbox: In Inbox, He can view his mailbox and mails. He can delete mails.

Outbox**:** In Outbox, He can see sent mails, check and uncheck all mails He can delete mails
Compose : Users can send mail to any user. He can delete mails and He can also send attachments .
Reports: This module is used to print various online reports. This module will be enabled only to the admin type of users. Reports contains various information about the Projects. Report takes the Project ID and from / to date as input and generates the report.

Work and Job Allocations

The whole project is divided into different works and jobs. The works and jobs will be assigned different teams in the organization. Every team has a team leader he is the responsible person for allocating the job. He needs to be preparing project status report and send it to the project Manager. Collecting all works and jobs from different teams in the company, the project manger will integrate it.

Project Management

While accepting any project the company having knowledge of that project domain. Project Manager will collect the necessary information for that project domain and share the knowledge among all the team which are need to involve in that project.

INPUTS AND OUTPUTS

The major inputs and outputs and major functions of the system are follows:

Inputs:

- Admin enter his user id and password for login.
- Employees enter his user id and password for login.
- Admin enter new project details.
- New employee gives his completed personnel, address and phone details for registration.
- Employees submit daily, weekly working hours.
- Manager Set the status of weekly submissions of employees.
- Admin gives different kind of user information for search the user data.
- Employees can change password after login into the system.
- Project Manger search for a team of employees for assign jobs and work.

Outputs:

- Admin can have his own home page.
- Employees can have their own home page.

- Employees get the assigned project details.

- Employees get the task details of the current project

- Employee receives mails.

- The user defined data can store in the centralized database.

- Admin will get the all employee information.

- The new user's data will be stored in the centralized database.

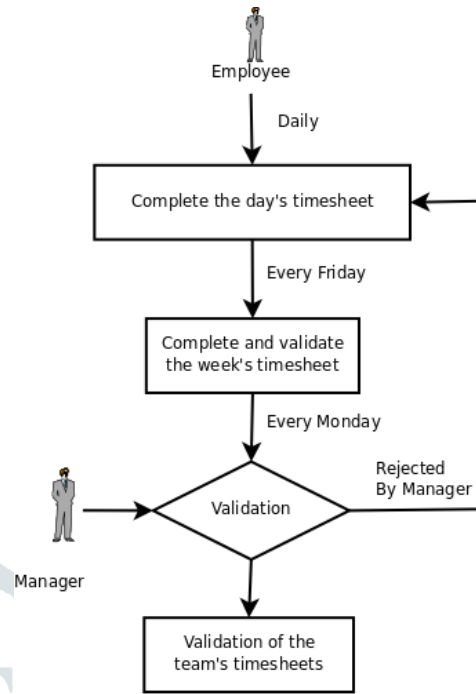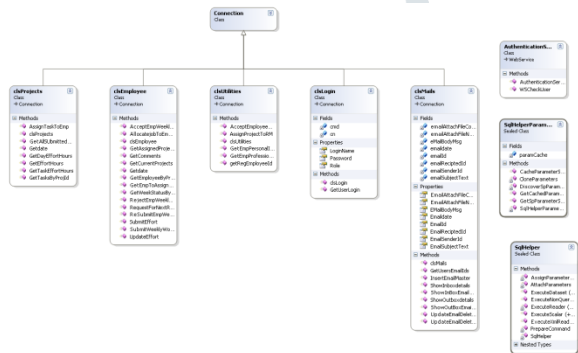- Admin get the search details of different criteria.

3. SYSTEM DESIGN

Fig 3.1: Class Diagram

Fig 3.2: ER Diagram

Fig 3.3: Activity Diagram

Fig 3.4: **Output Screen**

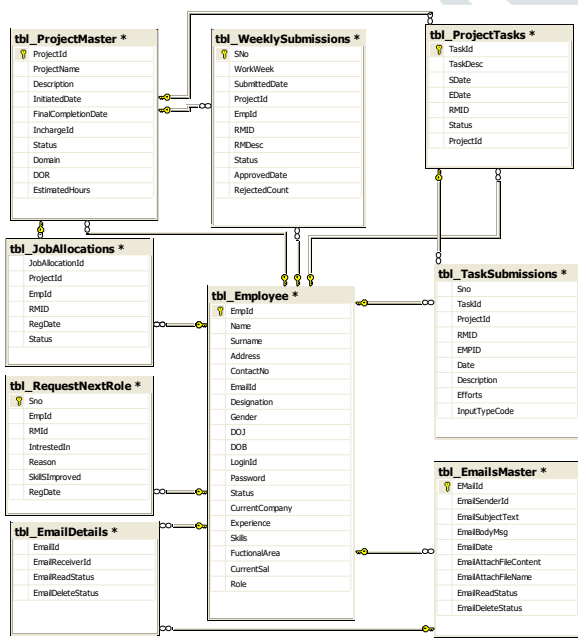## 4. CONCLUSION AND FUTURE ENHANCEMENT

It has been a great pleasure for me to work on this exciting and challenging project. This project proved good for me as it provided practical knowledge of not only programming in ASP.NET and C#.NET web based application and no some extent Windows Application and SQL Server, but also about all handling procedure related with **"Software Effort, Quality, Estimation System".** It also provides knowledge about the latest technology used in developing web enabled application and client server technology that will be great demand in future. This will provide better

opportunities and guidance in future in developing projects independently.

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BENEFITS:

The project is identified by the merits of the system offered to the user. The merits of this project are as follows: -

- It's a web-enabled project.
- This project offers user to enter the data through simple and interactive forms. This is very helpful for the client to enter the desired information through so much simplicity.
- The user is mainly more concerned about the validity of the data, whatever he is entering. There are checks on every stages of any new creation, data entry or updation so that the user cannot enter the invalid data, which can create problems at later date.
- Sometimes the user finds in the later stages of using project that he needs to update some of the information that he entered earlier. There are options for him by which he can update the records. Moreover there is restriction for his that he cannot change the primary data field. This keeps the validity of the data to longer extent.
- User is provided the option of monitoring the records he entered earlier. He can see the desired records with the variety of options provided by him.
- From every part of the project the user is provided with the links through framing so that he can go from one option of the project to other as per the requirement. This is bound to be simple and very friendly as per the user is concerned. That is, we can set that the project

is user friendly which is one of the primary concerns of any good project.

- Data storage and retrieval will become faster and easier to maintain because data is stored in a systematic manner and in a single database.
- Decision making process would be greatly enhanced because of faster processing of information since data collection from information available on computer takes much less time then manual system.
- Allocating of sample results becomes much faster because at a time the user can see the records of last years.
- Easier and faster data transfer through latest technology associated with the computer and communication.
- Through these features it will increase the efficiency, accuracy and transparency,

LIMITATIONS:

- The size of the database increases day-by-day, increasing the load on the database back up and data maintenance activity.

Training for simple computer operations is necessary for the users working on the system.

6. REFERENCES

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