Foresty Management System

Abstract

Iggesund Paperboard is one of the largest manufacturers of virgin fibre paperboard in Europe. The UK based operation is centred at a medium sized paper mill based at Workington in Cumbria. A key part of the Workington plants success is that it maintains and manages its own forests in Dumfries and Galloway, Perthshire and the Highlands. However, Iggesund only use the top two thirds of the Douglas fir and the Scots Pines which are grown in its Scottish forests. The remaining third is used to produce timber that is sold to local and national companies for use in construction and carpentry. It is this particular aspect of the company's business process on which I would like to concentrate.

Each forest has its own manager who is responsible for the timber sales operation. For several years the managers of the forests have been wishing to upgrade their paper based filing system to a computerized system. This system is outlined below. Unfortunately, due to staff shortages in the company I.T. department they have been unable to find the time to develop a new system. Regrettably, the forestry manager's budget is limited and he cannot afford to purchase an off-the-shelf package.

After brief discussions with a member of the I.T. department, and with the manager of the Forest of Ae (near Dumfries) I decided that I would to like to try and implement a system that would help

the manager of the Forest of Ae keep track of his customers, contracts, orders, products and haulers. Due to the recent staff cut backs and existing projects the I.T. department have been unable to offer me any type of support or spend any time with me to develop the system. However, they agreed it might be beneficial for me to develop a prototype system that then could be modified by them to suit the specific needs of the forest manager in the future.

Existing System

In the existing system all the implements are to be done on the paper based .So all the customer , haulier , products , order information are to be maintained Based on the paper . so there is redundancy of data and there time taking to Handle all the things . So every manager can maintaine his particular data . he can view all his customer information on the paper based this will leads to confusion .

Proposed System

In the proposed system all the information is to be maintained on computer Basis . there is no redundancy of data , the manager can easily handles the All the information . so all the customers can easily see the products details On-line . The manager can add the new haulier details easily . so he can see Whether the order is delivered or not to the particular customer

Scope of the System

The proposed system scope is limited to with in the organization only. In future it can be enhanced to be a global communication medium for multinational companies. We can also implement internationalization (i18n) to support user interface in various/local languages.

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Module Description

This section describes the current procedures that are followed by the forestry manager in the current system. Detailed understanding of these procedures was gained through several telephone conversations during September 2002.

Admin Module

The Admin can enter all the information related to the organization .He can enter the product Details ,modify the product details , delete the product and he can also add the customer details , Delete the customer details , update customer details ,and he can view all the information He can add hauliers information ,order details .

Customer module

The forestry manager has around 20 customers who he supplies regularly. Due to the nature of the business, he does not receive many new customers, but relies on the business of his existing customers. A paper file is created for the customer, recording their name and contact details and it is filed alphabetically by customer

name. To locate a customer file, the right drawer in the filing cabinet must be searched. What's more, if amendments need to be made to a particular customer's details then he usually must fill in a fresh form. Obviously this is a time consuming process.

Contract Details

The forestry manager has contracts with the majority of his customers. That is, he provides them with either a weekly or monthly delivery of a fixed amount of timber on a given day of the week or date in a month. He receives correspondence regarding new contracts by telephone, or by fax. Occasionally he receives written correspondence, and some of his customers now place contracts by email. These contracts are then recorded on a standard contract form and then filed against appropriate day of the week for weekly contracts, or against the appropriate date if it is a monthly contract. In order to fulfil these contracts, the forestry manager has to search through his filing cabinets to locate the contracts due. When contracts are completed, they are removed from the filing system and discarded.

Hauler Details

The forestry manager uses local haulers to delivery the lumber to his customers. Due to the nature of the business, haulers are highly specialized, and given the limited demand for transporting large amounts of timber it is unlikely that the forestry manager is likely to use any new haulers. In September 2002, the forestry manager was only using three different haulage companies to transport his goods. Consequently, their details are well known and only recorded on a notice board in his office.

Features to be implemented

- *Session management*
- *Connection pooling*
- *Normalized database*
- *Prevention of duplication login*
- *Design patterns*
- *Three-tier architecture*
- *Maintainability*
- *Easy deployment with Ant script.*
- *Exception handling*
- *Client-side validations*

Technologies to be used

- *Web Presentation: HTML, CSS*
- *Client – side Scripting: Javascript*
- *Programming Language: Java*

- ***Web based Technologies: JNDI, Servlets, JSP***
- ***Database Connectivity API: JDBC***
- ***Build Tool: ANT***
- ***Debug Tool: Log 4J***
- ***CASE tool: Rational Rose, Visual Paradigm, Enterprise Architect***
- ***Backend Database: Oracle/SQL Server/MY SQL/MS Access***
- ***Operating System: Windows XP/2000/2003, LINUX, Solaris***
- ***J2EE Web/Application Server: Tomcat/Weblogic/Websphere/JBoss/Glass Fish***
- ***IDEs: Eclipse with My Eclipse plug-ins/Net Beans/RAD***
- ***Browser: IE/Mozilla***

Hardware requirements

- *Pentium processor -------- 233 MHZ or above*
- *RAM Capacity -------- 128MB*
- *Hard Disk -------- 20GB*
- *Floppy disk -------- 1.44 MB*
- *CD-ROM Drive -------- 32 HZ*
- *KEYBOARD -------- 108 Standard*