Prototype system for
Online shopping for Builder's Square

Graduate Project Report
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Abstract

This project is the analysis, design and implementation of an on-line, World Wide Web based, material inventory system for Builder's square. The project involves the development of a database that keeps track of all the materials in the company. The database will be used to maintain a record of the material ordered by customers and materials shipped from vendors to different locations of the company. Design of this inventory system will centralize the database of the company by using the World Wide Web. The system will provide user-friendly programs to access the database for materials at various locations.
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URL of Main page: http://robin.tamu.edu: 8891/apps/allipuram.project.main
Background and rationale

The trend towards extensive use of the computer offers an efficient and effective means to maintain records of material that are shipped from vendors and supplied to customers. The latest technology in this regard, is the use of centralized database for fast updating and viewing of inventory materials of a company and to maintain data about these materials needed by various departments with respect to vendors and customers. When a location need a material, that location will place an order to the corporate office for the supply of the material. The corporate office, in turn gets the best quote from the chosen vendor and places an order for that material. The vendor delivers the order either to the corporate office or the requesting location directly. In both cases, the material stock will be updated in the database which can then be viewed by suppliers at all company locations and by online customers.

Builder’s Square is primarily a builder supply company that supplies a significant amount of material to construction and civil engineering companies that focus their business on the construction of small to medium buildings. Currently, Builder’s Square uses only a very basic, manual, recording system which consist of the following actions:

Different material inventory order forms are used for ordering materials within the company, (different locations from the corporate office), which are filled in and sent manually.
Customer-material-order forms are manually completed spreadsheets.
Using these spreadsheets, orders are placed to different vendors.
Current updating of inventory is done manually in books, which is both complex and time consuming.
The proper recording of this data and the bookkeeping of these can be very time consuming. As the amount of data increases, it is often difficult to track. Thus, a manual recording system can be slow and error-prone process.

A computer-based maintenance system will be an efficient and cost-effective alternative to a manual system. In a computer-based maintenance system, data will be recorded as it is created. This data will also be current and available for viewing by different departments at different locations. The record entries will be quick, dependable and very convenient to modify in case of need. The data will be dynamic, easy to store and will be available for viewing by the public.
The purpose of this project will be to develop an online interface between the customers and suppliers, which automatically updates inventory information using the World Wide Web with a tight integration of Oracle 8.0.5 server as a back end. The end product enables the authorized customers to place an order directly without being physically present, while vendors can send their quotes for the material and receive payment online using the web browser. This database design will thus, provide user-friendly online shopping using the World Wide Web.