Enterprise Web Application Design projects.

CALL CENTER MANAGEMENT

Abstract

The project "Call Center Management" automates the operations of a call center by giving replies to the customer's queries. By adding more entries to the data base store, the application can respond to more number of queries from the customers. The importance is given on giving correct reply to the input queries.

The process of the call center management can be explained as follows.

The project gets the queries from the various customers and stores them in a centralized data store. When there are number of queries the queries are stored up in a queue and then the queries are processed one by one. There are separate blocks called data recognizer for recognizing the data, i.e. queries, and data interpreter for interpreting those queries. The input query from the customer is first recognized by the data recognizer by comparing with the entries in the data base store. In the database the solution for each and every query is stored and maintained. Then it is interpreted as what type of query it is and how it should respond to the query.

The input query is compared with the queries in the database store. The solution for the input query is founded.

The information service switch switches the application between different type of distributed services. The final result, the reply to the customer's query is obtained at the end

CONTENT MANAGEMENT SYSTEM

Abstract

A content management system (CMS) is a system used to manage the content of a Web site. Typically, a CMS consists of two elements: the content management application (CMA) and the content delivery application (CDA). The CMA element allows the content manager or author, who may not know Hypertext Markup Language (HTML), to manage the creation, modification, and removal of content from a Web site without needing the expertise of a Webmaster. The CDA element uses and compiles that information to update the Web site. The features of a CMS system vary, but most include Web-based publishing, format management, revision control, and indexing, search, and retrieval.

The Web-based publishing feature allows individuals to use a template or a set of templates approved by the organization, as well as wizards and other tools to create or modify Web content. The format management feature allows documents including legacy electronic documents and scanned paper documents to be formatted into HTML or Portable Document Format (PDF) for the Web site. The revision control feature allows content to be updated to a newer version or restored to a previous version. Revision control also tracks any changes made to files by individuals. An additional feature is indexing, search, and retrieval. A CMS system indexes all data within an organization. Individuals can then search for data using keywords, which the CMS system retrieves.

A Content Management System (CMS) is a collection of procedures used to manage work flow in a collaborative environment. These procedures can be manual or computer-based. The procedures are designed to:

•  Allow for a large number of people to contribute to and share stored data

•  Control access to data, based on user roles. User roles define what information each user can view or edit

•  Aid in easy storage and retrieval of data

LIBRARY MANAGEMENT SYSTEM

Abstract

A community currently has a library with a number of small library branches located within its jurisdiction. A library review board is reviewing the current library information system and looking for opportunities to expand the quality of service as well as the types of services that it offers its patrons. The current information system, while serving the community well up to this point in time, has reached its limitations and most likely will need to be computerized. The current library system offers patrons the ability to loan books for a period of time.

The library also has periodicals although they must remain in the library and cannot be loaned out. The system is based on a system of cards with every book in the library having a loaner card located with the book (usually in the inside cover of the book).

When the book is loaned out, the card is removed and annotated by the librarian with the return date and the patron’s name. The card is matched with the title card, which is the book information and kept at the library. The two cards are kept together with a paper clip. This lets the librarian know who has the book currently on loan and the latest date for it to be returned. The loaner card is replaced in the book with a return date card, which is simply the return date stamped on the card. This lets the borrower know the latest date they are expected to return the book to the library.

When a book is returned from loan, the librarian removes the return date card and the return date is crossed out. In addition, the loaner card is located, the patron’s name and return date are crossed out, the card is placed with the book and the book is returned to the shelf. If the book is returned late a fine of $1.00 per week is collected from the patron. A patron with fines in arrears should not be permitted to loan out books, although this is difficult to enforce. Both the loaner card and the return date card are reused multiple times until they are ‘full’ and then discarded. A loaner card has room for about 20 loans on the card; a return date card has room for about 100 return dates on the card. A loaner card and a return date card can be used with any book. Anyone who lives in the community can borrow books as a patron and the librarians know most patrons by sight. Patrons have a limit of 5 books on loan at any time, however there is no mechanism to ensure that this rule is followed. There is no ability to renew loans, other than to return the book to the library and loan it out again. There is no ability to have books placed on hold. While patrons can visit any branch in the community to borrow books, there is no knowledge of what books are in the other community branches, a library branch only knows about its own books.

The library review board would like to offer services such as renewals, reservations (place books on hold), and book loan transfers from other branches. It would also like to offer other materials on loan, such as periodicals, videos and CDs. It would also like to manage its’ system so that librarians can help patrons find books or other materials anywhere within it’s branch network. The library review board feels that with a new system they can better serve the community, as well as help the librarians better manage the books that are within their particular branch.

The library review board expects that the analysis and design work done by the project teams will yield clarity on some of these requirements as well as add to the knowledge and the addition of the requirements. Based on the findings of the project teams, the library review board will issue subsequent requirement document updates that indicate the requirements are to be considered in scope for the project.

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