

Book Distributor Sample Application

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1.0. Introduction

This sample application simulates a book distributor. Individual book stores can order books and stock their own inventory. The distributor can also order books, should it be out of stock themselves. The necessary forms are printed as required.

2.0. Inventory

This option deals with the management of the inventory. It is possible to remove books from the list and to add new books to the inventory.

Each book is identified by the following set of descriptors:

Author	<i>The author(s) of the publication</i>
Title	<i>The title of the publication</i>
Publisher	<i>The publisher of the book</i>
ISBN	<i>The unique ISBN number of the publication</i>
Price	<i>The price of the publication</i>
Stock	<i>Number of copies in stock</i>
min. Stock	<i>Minimum number of books in stock</i>
Ordered	<i>Number of books on order</i>
Book Cover	<i>Book cover (if available)</i>

3.0. Buying and Selling in General

Various book stores can order books from the distributor. This is accomplished by accessing the **Sell** portion of the application. All incoming orders are stored in a list and are processed at the end of the working day. The system determines the availability of the books ordered. If the number of books of an ordered title are in stock, then the status is set to "**ship**", the database is updated and the books are shipped. If there are not enough books in stock, then the order is set to "**wait**", the database is updated and the order cannot be processed until the distributor places an order for the books and these arrive.

Once the order has been processed, the invoices can be printed, which are then included in the shipment. This completes the order process.

All orders which have received the status "**wait**" are automatically entered into a different list. This list reflects any understock of books. This status is reached whenever the number determined to be the minimum amount has been achieved. The **Buy** section of this application deals with these orders by setting

the status to **"none"**. By processing these orders, they are prepared and their status is set to **"print"**. The inventory department must now wait until these books arrive. Once this has happened, the **Order Received** button is pressed. The system then analyses the Sell list and determines which of the books, that have arrived in stock, match the ISBN numbers in the Sell list. If sufficient books have arrived to allow a shipment, the status of the corresponding order is changed from **"wait"** to **"ship"**.

4.0. Selling

This portion of the application is responsible for dealing with incoming orders placed by book stores. A book store can place an order for any number of books. The book is entered in the order list via its unique ISBN number. The book store placing the order, either enters the ISBN number, or queries the database to determine the ISBN number. The system then automatically generates a unique order number.

The table and the input fields represent the Sell list. The right part of the screen, containing the input fields, displays information specific to a given book.

MindMap 2.10

book.mm

Order Number	Order Date	Store	ISBN Number	Copies	Status

Book Author : Crichton, Michael

Book Title : Jurassic Park

Company : Penguin

ISBN Number : 3-6546-42432-465

Price : 19.9496

Stock : 34

Ordered : 0

min. Stock : 20

Take Search of 1 to 10

Sorry, No Cover Image Available!

Order : 0

Store :

ISBN Number :

Copies : 0

Order Date : 11/17/1996 12:13:16

Status :

Record No. 1

Insert Order Delete Order Clear Fields Modify Order Show All Search No. Search Store Process Sell Print Invoice Exit

By pressing the **Search** button, control is passed to a screen permitting the definition of a query.

Search Criteria: (values for the SQL 'WHERE' string)

Type of matching for strings : ???% substring match

author LIKE

or

author LIKE

or

author LIKE

or

author LIKE

This screen allows you to enter up to four (4) search criteria, each related to another via an "or" or an "and". If you enter a number, a secondary field is automatically activated which allows you to enter numerical operators. The drop down list box at the top portion of the screen permits a further specification of how the entered string(s) is/are to be searched. You can either specify an exact match, a truncated match, or a sub-string match.

The **SQL Preview** button will generate the SQL string sent to the database. The button labeled **Clear** will clear the query fields. The same can be accomplished by clicking on the buttons marked with a red "x". These will clear the field to their immediate left. The **OK** button will execute the specified query.

Once the desired book has been located, clicking on the button labeled **Take** will transfer the ISBN number to the list.

The buttons, as labeled below, perform the following functions:

Insert order	Insert an order
Delete order	Delete an order
Clear fields	Clear all input fields
Modify order	Permits modifications, as long as status is "none"
Up/Down	Previous or next order in list
Show all	Shows all orders
Search no.	Searches for an order by order number
Search store	Searches for an order by store

Process sell	All orders marked "none" are processed and set to either "ship" or "wait"
Print invoice	All entries set to "ship" are processed and printed
Exit	Leaves this segment of the application
Take	Transfers the ISBN number into the Sell list
Search	Transfers control to the query dialog box

5.0. Buying

In this section of the application the orders placed by the distributor to the publishers are dealt with. The status is changed from "**none**" to "**print**" whenever an order sheet is printed. Once the books are received they can be deleted from this list by clicking on the button labeled **Order received**.

The available functions are:

Order received	<i>An order has been received, updates the Sell list and the inventory.</i>
Up/Down	<i>Displays previous or next order</i>
Show all	<i>Displays all orders</i>
Search no.	<i>Retrieves an order by order number</i>
Process buy	<i>All entries with a status of "none" are processed and are set to "print". Order forms are printed.</i>
Exit	<i>Leaves the Buy section of the application</i>

6.0. Sorting

The available functions in this section are:

Insert	<i>Inserts a new book</i>
Delete	<i>Removes a book from the list</i>
Clear fields	<i>Clears all input fields and retrieves standard book cover</i>
Update	<i>Updates the information to an existing book</i>
Up/Down	<i>Displays previous or next entry</i>
Show all	<i>Displays all entries</i>
Search	<i>Queries the database based on the entries</i>
Adv. search	<i>Opens an dialog box with expanded query facilities</i>
Sort option	<i>Determines how the sorting order is to be</i>
Print list	<i>Prints a list of all books that are carried</i>
Print book	<i>Prints all entries relating to the current book, including its cover</i>
Exit	<i>Leaves this section of the application</i>