

# **LIBRARY MANAGEMENT SYSTEM**

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## **Abstract:**

The objective of the **Library Management Software** is to handle the entire activity of a library. The software keeps track of all the information about the books in the library, their cost, their complete details and total number of books available in the Library. The user will find it easy in this automated system rather than using the manual writing system. The system contains a database where all the information will be stored safely. The system is user-friendly and error free. The application library management system is developed for members and admin to do all the transactions. Both the members and admin will be having the credentials where they can access their accounts using them. Admin will be responsible for all the book issues, supplier, member details and all transaction. members can login to their respective accounts and can see the available books where they have to enter either book title or author and can see all the related books and can get issued by the admin if the book is available they can see their fine details over due dates of their book.

## **Introduction:**

In the library management system there are four main components

- Member login
- Admin login
- Looking for books?
- Forgot password

### **Member login:**

Each member will be given an member id and a password by the admin to login after they login they can see member details, book history, current books and sign out buttons. If the member id and password doesn't match with the database the application will throw an error asking to check the member id and password once the member, logins they can see their details and current book, they can see the book issued to them if they exceed the due date they will display the fine amount which had to be paid by them. Then there will be book history where it shows the history of the entire book taken by them from the date of the account register.

## **Admin login:**

Admin can login to the account he can control all the transactions of the members he can only issue the books. Each book has a unique book id where he can issue to the members which will be updated in respective account of the member. There will be Edit member details where admin can edit the member details like creating new password changing answer for the security question. But the member id remains same which cannot be revocable then admin can add a member or delete member.

Then he can see supplier details he can add supplier or delete supplier then there is book transactions in that he can issue books to the members. Then there is book management where he can add new books to the library and add more number of copies to the library. Then he can sign out.

## **Looking for books?**

On the main page there is a looking for books option where without even credentials by entering author or title of the book he can view all the books available in library along with the availability. They will display the status of the book looking for if it is available it can be issued by the admin the book the member is searching it displays the authors along with it an editions related

to the keyword you type in the title. Therefore it can be issued by the admin.

**Forgot password:**

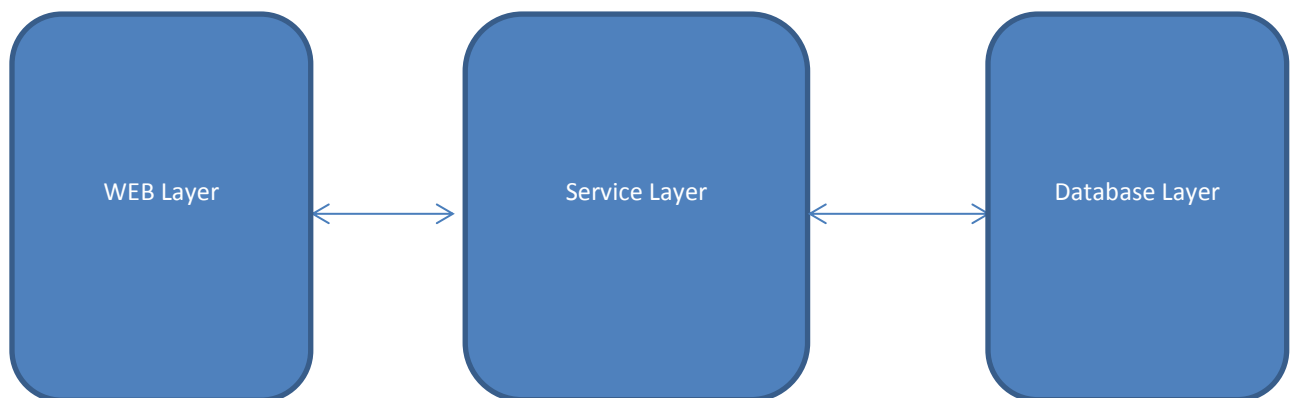
There is forgot password option where the member can create a new password in case if h forgets the old password. If he clicks the forgot password then he will be asked to enter the member id then there will be an security question which cannot be changed by giving answer to that he can reset the password. After the password gets reset he will directed to the home page where he can enter with new password and access his account.

## **Technology Used:**

- Microsoft Visual studio where .net 3.5 framework has been used for console applications and asp.net web application has been used.
- MS SQL Server 2008 has been used to develop the database for the back end.
- Then we used load runner 11.0 version is used to record the script for the application.

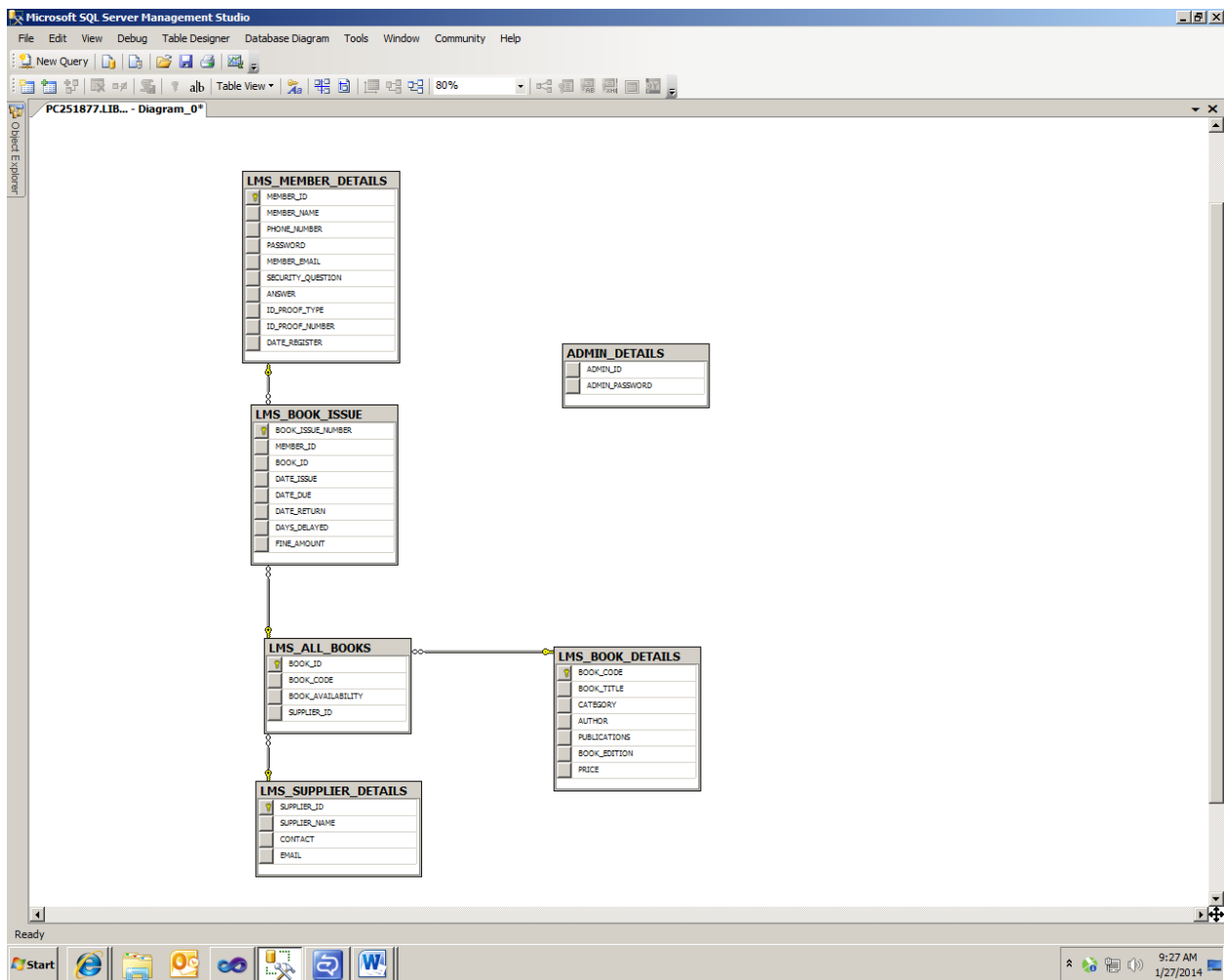
## Architecture Design:

- Login Module (Login with preloaded user accounts)
- Add/Edit/View – Admin Login (ID, Name, type, Quantity, etc.)
- Supplier Details –Add/Edit/View – Lending Details (Book Id, Book Name)
- Member page-view details/fine details current books, book history.
- Log Out.





At the back end In the MS SQL Server the architecture of the tables.



## **Modules:**

### **MODULE 1: ADMIN LOGIN**

This module will be used by administrator to issue books, monitor fine details. The administrator will have all the details of the books issued and returned and fine details of all the members.

#### **ADMIN ACTIONS:**

- The admin should login to monitor the information of the members
- The admin contains all the details of the members: book details, book issued date, book returned date and manages the fine range and fine amount details of the members.
- The admin holds the information of the book availability status of the books based on the books returned by the members
- The admin has the records to retrieve the member details like forgot password.

- Admin has the supplier details information also.
- Admin can login through his credentials from the same login page as the members page and can monitor all the details
- Admin will send the mail to remind the respective members if they have exceeded their due date

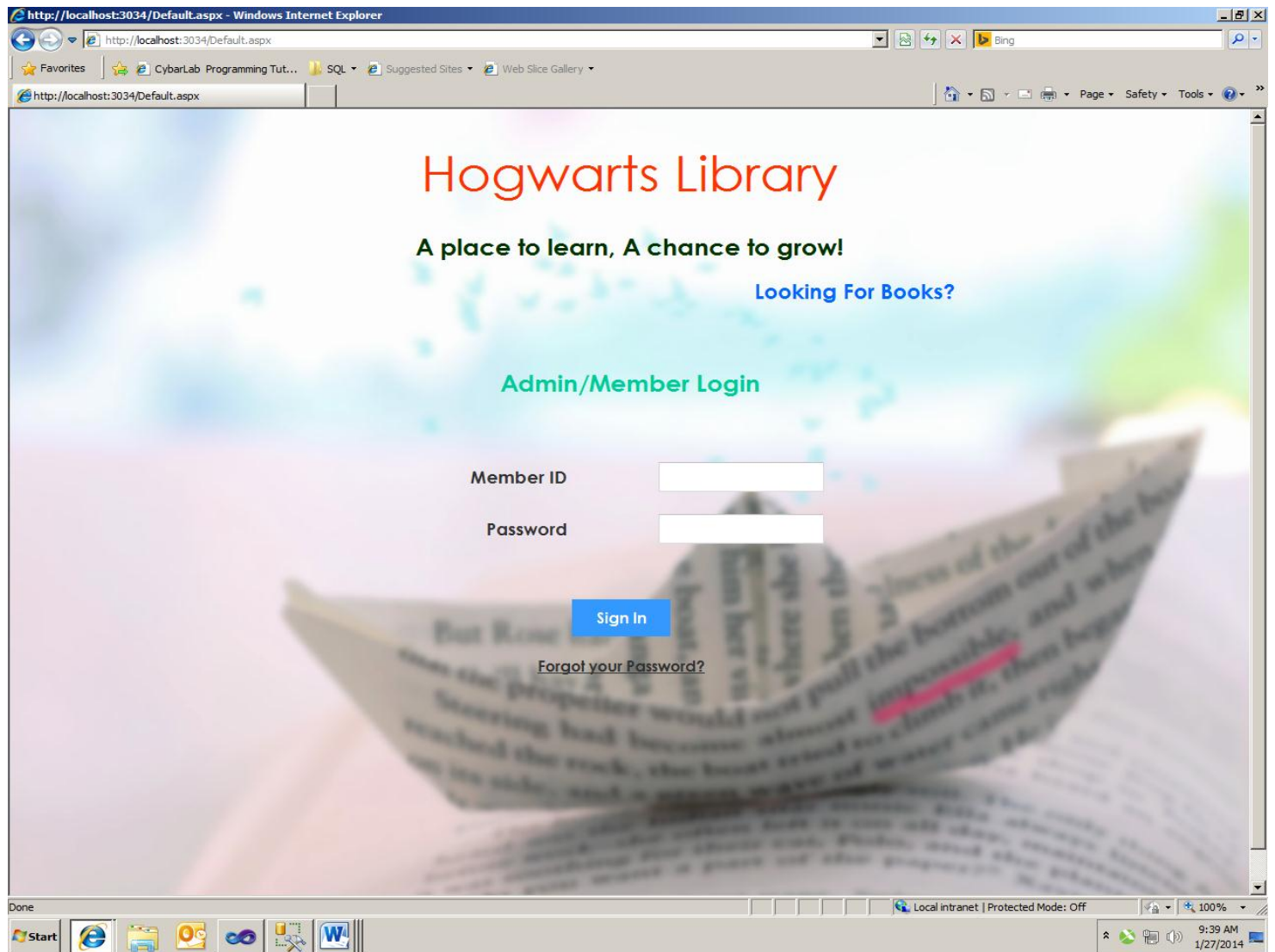
## **Module 2: Login Page**

This module would be used by all the members and admin to get authenticated with the Library management system.

### **Login actions:**

- The members use the login page to login their account with the credentials like member id and password. They can search the books on the home page itself either by using book title or the author name.

- After the members login they can check their details like their fine amount and fine range.
- Members can update their details in their login like id proof type and its number.
- If members forgot their password there will be forgot password link where it will redirect to a forgot password page.
- In the forgot password page the members will be asked for the security question and the answer which they have to answer and it will be verified with members details which they have given during their registration.
- There will be a search option on the login page itself to see the availability status of the books.
- After the login member can see the details and also renew the books and can see the price of the books



## **Module3: Member details**

This module contains all the details about the members in the library they can use their credentials and login and can manage their account.

### **Member details Actions:**

- Members can see the availability of the books in home page itself and after they enter the account they can see the history of the books taken by them from the time of the registration of their account.
- They need to give any id proof and id proof number along with their registration they can edit their details anytime by logging in their account
- They can see their fine amount by login in their account and by clicking on the fine amount button.

- They can renew the book from their account and the admin will update the availability status of the books accordingly.
- Admin will have the E-mail id of the members where if the members exceed their due date a mail will be sent to them by the admin.

The screenshot shows a web browser window with the URL `http://localhost:3034/Member.aspx`. The page title is "Hogwarts Library" and the subtitle is "A place to learn, A chance to grow!". The user is logged in as "MOUNICA". Below the navigation links, a table displays the user's current book borrowings.

Book ID	Title	Issue Date	Due Date	Days Delayed	Fine Amount
1004	Java The Complete Reference	12/12/2013 12:00:00 AM	1/11/2014 12:00:00 AM		

## **Module4: Book details**

This module consists of the book details the book id, book code, book title category of the books author, publication, book edition, price and supplier's id will be shown in the book details

### **Book details actions:**

- \_Details of the book can be shown by book code if the book is available or not.
- In book details there will be book title category of the books which will be displayed when searched
- Admin will be accessing the price of the books along with supplier id.
- Members can access all the book details along with book code, book title, book author, publication, and book edition.



http://localhost:3034/Search.aspx - Windows Internet Explorer

http://localhost:3034/Search.aspx

Matches Found

BOOK ID	BOOK CODE	BOOK TITLE	AUTHOR	EDITION	AVAILABILITY
1081	CSH001	Learn C# (includes C# .NET 3.0 features)	Sam A. Abolrous	3	Y
1082	CSH001	Learn C# (includes C# .NET 3.0 features)	Sam A. Abolrous	3	Y
1083	CSH001	Learn C# (includes C# .NET 3.0 features)	Sam A. Abolrous	3	Y
1084	CSH001	Learn C# (includes C# .NET 3.0 features)	Sam A. Abolrous	3	Y
1085	CSH001	Learn C# (includes C# .NET 3.0 features)	Sam A. Abolrous	3	Y
1244	CSH001	Learn C# (includes C# .NET 3.0 features)	Sam A. Abolrous	3	Y
1245	CSH001	Learn C# (includes C# .NET 3.0 features)	Sam A. Abolrous	3	Y
1086	CSH002	Microsoft Visual C# .Net Step by Step--Version 2003	Bernadette	2	Y
1087	CSH002	Microsoft Visual C# .Net Step by Step--Version 2003	Bernadette	2	Y
1088	CSH002	Microsoft Visual C# .Net Step by Step--Version 2003	Bernadette	2	Y
1089	CSH002	Microsoft Visual C# .Net Step by Step--Version 2003	Bernadette	2	Y
1090	CSH002	Microsoft Visual C# .Net Step by Step--Version 2003	Bernadette	2	Y
1091	CSH003	Collected Computer Prog, Problems in Visual C# .NET 2007 Edition	Yashavant Kanetkar, Asang Dani	5	Y
1092	CSH003	Collected Computer Prog, Problems in Visual C# .NET 2007 Edition	Yashavant Kanetkar, Asang Dani	5	Y
1093	CSH003	Collected Computer Prog, Problems in Visual C# .NET 2007 Edition	Yashavant Kanetkar, Asang Dani	5	Y
1094	CSH003	Collected Computer Prog, Problems in Visual C# .NET 2007 Edition	Yashavant Kanetkar, Asang Dani	5	Y
1095	CSH003	Collected Computer Prog, Problems in Visual C# .NET 2007 Edition	Yashavant Kanetkar, Asang Dani	5	Y
1096	CSH004	C# .Net Illuminated 0004 Edition	Art Gittleman, Arthur Gittleman	6	Y
1097	CSH004	C# .Net Illuminated 0004 Edition	Art Gittleman, Arthur Gittleman	6	Y
1098	CSH004	C# .Net Illuminated 0004 Edition	Art Gittleman, Arthur Gittleman	6	Y
1099	CSH004	C# .Net Illuminated 0004 Edition	Art Gittleman, Arthur Gittleman	6	Y
1100	CSH004	C# .Net Illuminated 0004 Edition	Art Gittleman, Arthur Gittleman	6	Y
1101	CSH005	C# .NET Fundas 2002 Edition	Yashavant Kanetkar	3	Y
1102	CSH005	C# .NET Fundas 2002 Edition	Yashavant Kanetkar	3	Y
1103	CSH005	C# .NET Fundas 2002 Edition	Yashavant Kanetkar	3	Y
1104	CSH005	C# .NET Fundas 2002 Edition	Yashavant Kanetkar	3	Y
1105	CSH005	C# .NET Fundas 2002 Edition	Yashavant Kanetkar	3	Y

Done

Local intranet | Protected Mode: Off

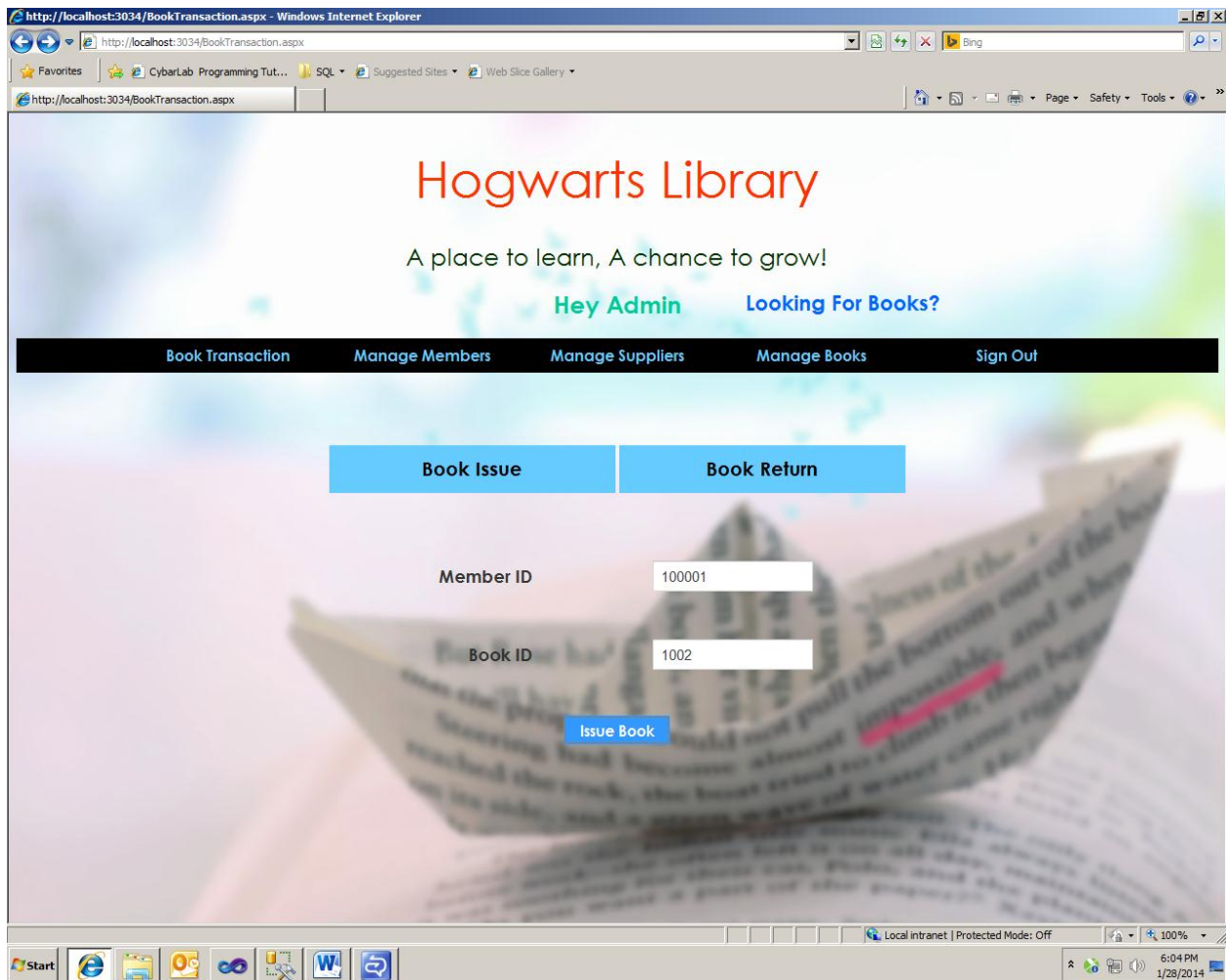
6:03 PM  
1/28/2014

## **Module5: Book Issue**

This module consists of the book issue number; date when the book is issued and the actual returned date of the book. According to the days delayed fine amount will be calculated.

### **Book issue actions:**

- Admin takes care of the book issue and return based on the date of the book issued and book returned.
- Admin maintains the fine amount of the members based on their return date of the books which they can see in their member details page.
- Book availability will be managed by the Admin by taking book renewal and book issued status for the members.



## Module6: Supplier Details

Supplier details will contain supplier id, supplier name, e-mail and contact number of the supplier of the books. Admin will be accessing the supplier details.

The screenshot shows a web browser window with the URL `http://localhost:3034/ManageSuppliers.aspx`. The page title is "Hogwarts Library" with the tagline "A place to learn, A chance to grow!". There are links for "Hey Admin" and "Looking For Books?". A navigation bar contains "Book Transaction", "Manage Members", "Manage Suppliers", "Manage Books", and "Sign Out". Below this, there are three buttons: "Add Supplier", "Edit Supplier", and "View Supplier". The "View Supplier" button is active, displaying a table of suppliers.

Supplier ID	Supplier Name	Phone No	Email
101	New Book Lands	9873451236	newbooklands@gmail.com
102	Shree Balaji Book Sellers & Distributors	9970345123	balajibooks@yahoo.in
103	Vijaya Book Traders	9662205731	vijayabooks@hotmail.com
104	Jayanthi Book Distributors	9389864227	jayanthibooks@gmail.com
105	A.R. Enterprises	9655552345	arent@outlook.com
106	S B A Book Place	9734924743	sbabook@yahoo.com
107	Current Technical Literature Co Private Limited	8773426262	ctlnco Pvt Ltd@gmail.com
108	Standard Book Distributing House	8875642522	standardbook@gmail.com
109	Charisma	7329909873	charisma@live.in
110	Samata Books	9929374252	samata@gmail.com

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