



problem :

Existing book platforms often leave readers frustrated due to challenges in finding specific books efficiently and with a good price, obtaining detailed information about content and pricing, and accessing a diverse range of titles online.

Project description:

Our website offers the user an exclusive discount on books and addresses these pain points by providing a user-friendly platform that streamlines book discovery.

functional requirements :

- 1- The user should be able to view books.
- 2- The user should be able to rate books.
- 3- The user should be able to review books.
- 4- The admin should be able to login.
- 5- The admin should be able to login.
- 6- The admin should be able to add books.
- 7- The admin should be able to delete books.
- 8- The admin should be able to edit books.
- 9- The admin should be able to provide discount on books.



non functional requirement:

1- Performance: The website should load quickly and respond promptly to user actions such as searching for books, adding them.

2- Usability:

- The system should be user-friendly.
- The system will be designed with an easy user interface.

3- Availability:

- The system is available to report at all times of the day.

4- Security and Privacy:

- The system should be protected from any hackers and attacks

Goal:

The website is to display the content of the books and the rates and reviews made by users and providing exclusive discounts on books that the user can benefit from in the sale points.

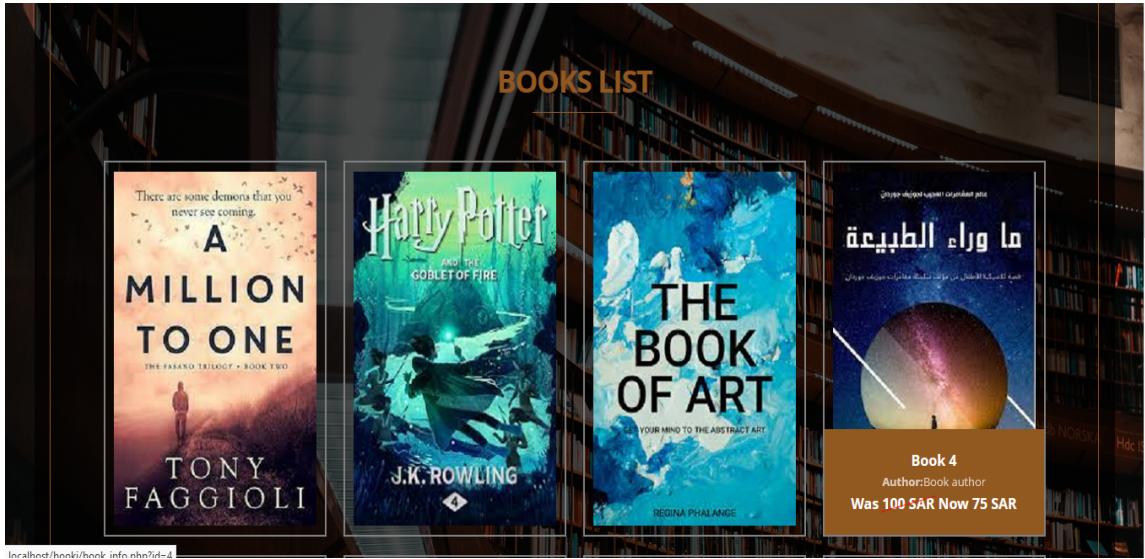
Audience:

People who want to have a reasonable price for books and view the book's content and comments before purchasing from sale points.

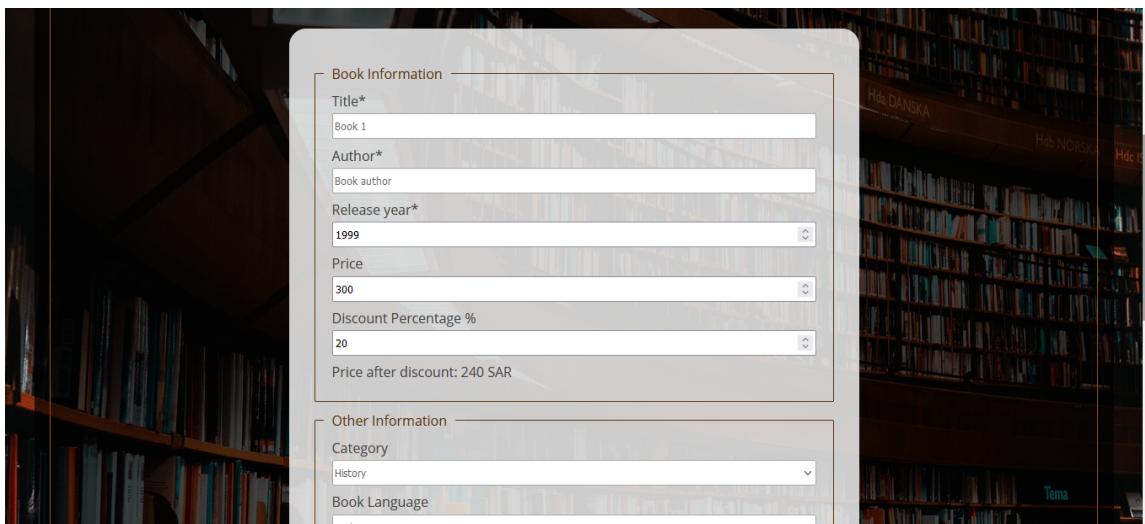


Some pages in our website:

- The book list page enables the user to view all items and price of each book and will offer discount on some books.

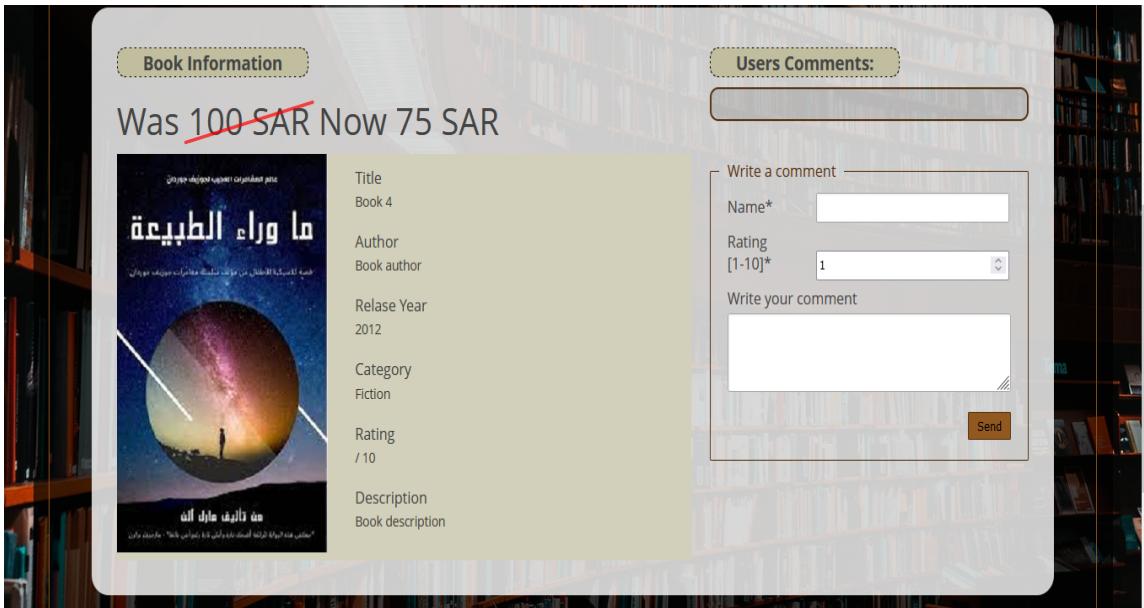


- The edit page enables the admin to edit the item's name, description, logo, price and discount percentage. The form action will edit the item on the database.



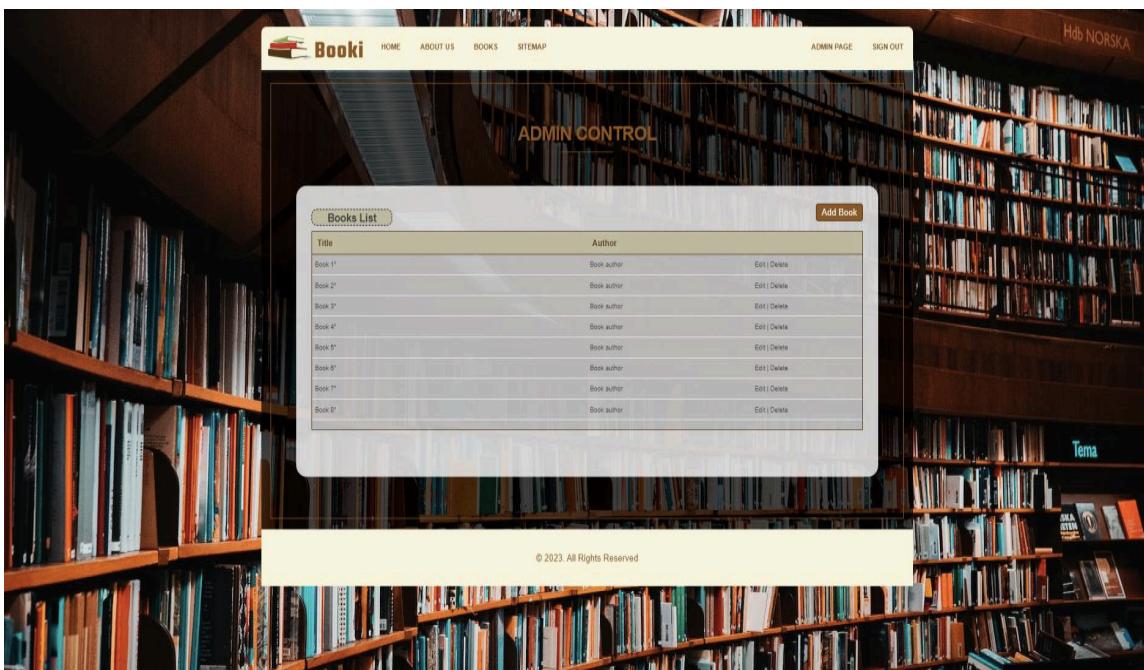


- The book info page displays the name and description of the book, price, evaluation, and discount. You can also add a comment and rate the book.



A screenshot of a book information page. At the top, there's a banner with the text "Was 100 SAR Now 75 SAR". Below this is a large image of a book cover titled "ما وراء الطبيعة" (What Lies Beyond Nature) by Book 4, published in 2012. To the right of the book image, there's a sidebar for "Users Comments:" which includes fields for "Name*", "Rating [1-10]*", and a text area for "Write your comment" with a "Send" button. On the left side of the main content area, there are details about the book: Title (Book 4), Author (Book author), Release Year (2012), Category (Fiction), Rating (/ 10), and Description (Book description).

- The admin control page where the admin can add, edit and delete books.

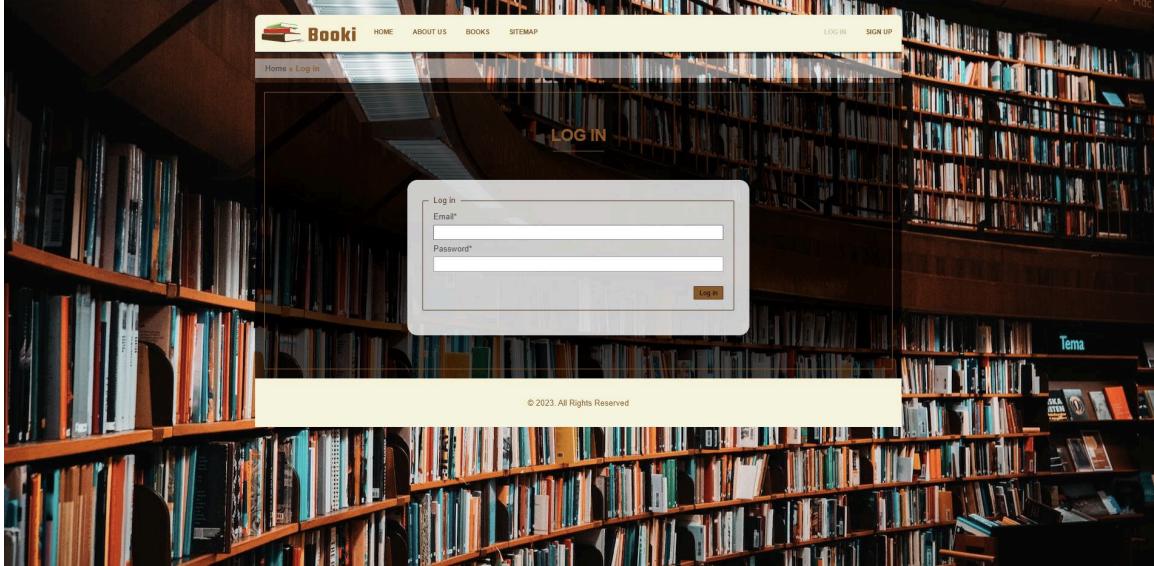


A screenshot of the admin control interface. The title bar says "ADMIN CONTROL". Below it is a "Books List" table with columns for "Title" and "Author". The table contains 8 rows, each with a "Edit | Delete" link. The table has a header row with "Title" and "Author" headers. The footer of the page includes a copyright notice: "© 2023 All Rights Reserved". The background of the entire interface is a photograph of a library with many bookshelves filled with books.

Title	Author
Book 1*	Book author
Book 2*	Book author
Book 3*	Book author
Book 4*	Book author
Book 5*	Book author
Book 6*	Book author
Book 7*	Book author
Book 8*	Book author



- The login page enables the admin to insert their username and password. The form's action will retrieve the admin's username and password from the database and compares them to the inserted data, if they match, the admin is directed to the control panel. If they don't match, an error message is provided to the user.





In our project we have different functions regards the business and presentation layer, so here are all of them:

- **Main functions:**

Admin:

1- **Add books:**

The admin can add a new book to the website from the admin control panel by providing the book's title, price, author, release year and book rating and there are a few more optional inputs, the form's action will insert the item to the database.

2- **Edit books:**

The admin can edit any information about books on the website from the admin control panel, the form's action will edit the item in the database.

3- **Delete books:**

The admin can delete any book at any time from admin control panel, the book will also be deleted from the database.

4- **Add a discount:**

The admin can add an exclusive discount that is provided to our users and can change the discount percentage at any time on any book, this function will calculate the price of the book after the discount and shows it on the home page.

5- **Login authentication:**

The admin can login at any time, the authentication function will check the values entered by the user to the values in admin login with the database if matches enable the admin to access database.

User:

6- **View books:**

The user can view the information provided to the books and their special prices at any time, and he can use the discount at any selling point.

7- **Add a rate:**

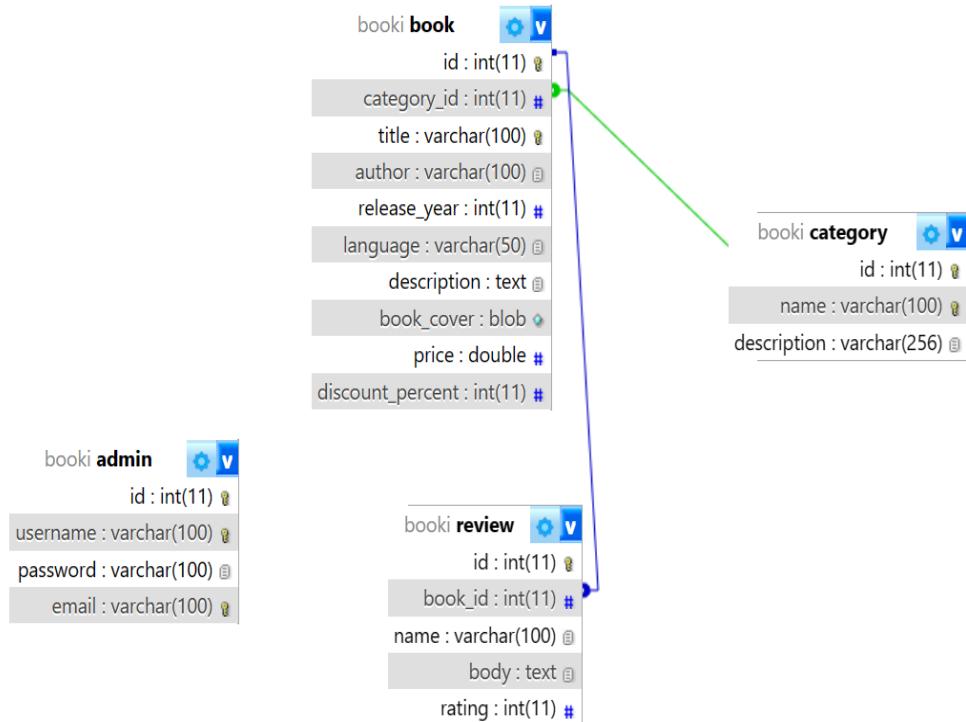
The user can add a comment and rate the books at any time.

8- **Reviews:**

The user can view other user's reviews.

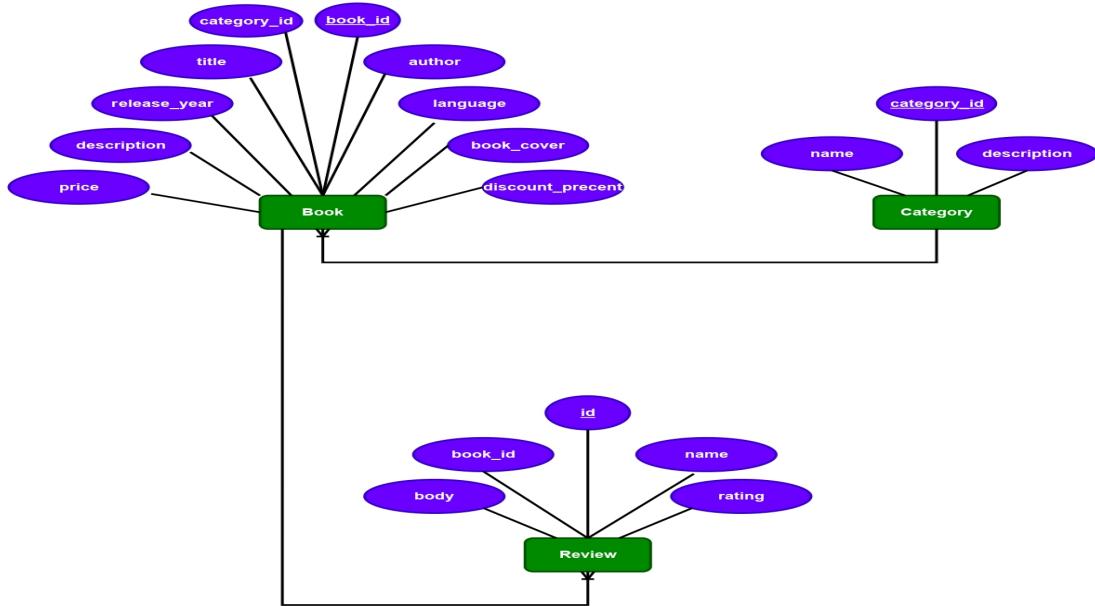


- A table schema.



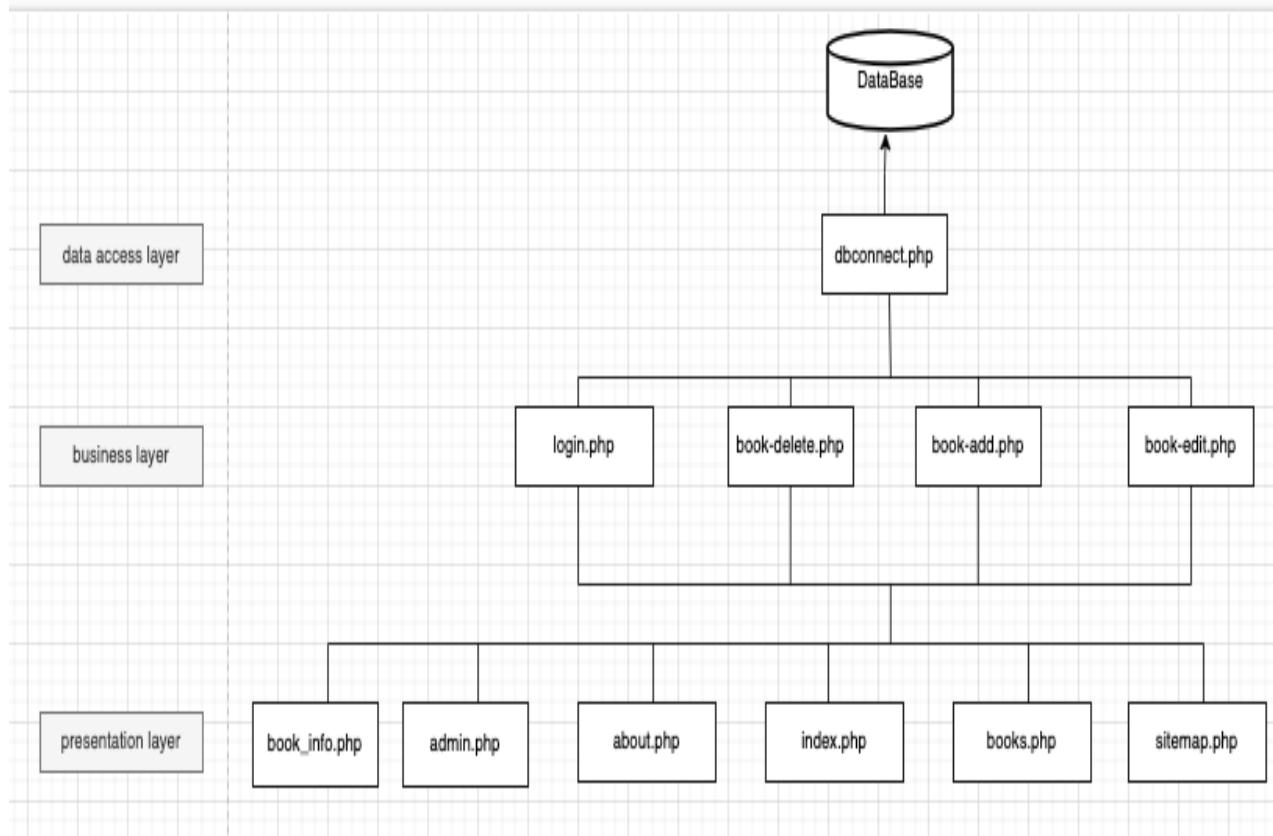


- E-R diagram





- A schematic form





We performed all the CRUD queries in our project:

1- Create:

This operation involves inserting new data into the database by adding a new book we performed the create query in our project, the admin will provide the book information which are title, author, discount percentage and the release year he will also provide other information like category, book language book rating and the book cover image and finally the admin will provide the book description then by clicking on "Add book" button the database will be updated with the new book details. This process ensures that the website's database reflects the latest additions, and users can subsequently view and interact with the newly added book on the website. The "Create" operation is fundamental for expanding the database content and keeping the website's book collection up to date.

The screenshot shows the 'Add new book' form on a website called Booki. The form is titled 'ADD NEW BOOK' and is divided into several sections:

- Book Information**:
 - Title*
 - Author*
 - Release year*
 - Price
 - Discount Percentage %
- Other Information**:
 - Category: History
 - Book Language: Arabic
 - Book cover image: A placeholder text 'لم يتم اختيار ملف' (No file selected) is displayed in the input field.
- Description**:
 - Description: A large text area for entering book descriptions.

At the bottom right of the form is a 'Add book' button. The background of the page shows a blurred image of a library with many bookshelves.



2- Read:

This operation is about retrieving information from the database when the admin login the read function will be performed by querying the database for admin specific information such as the email and password and ensuring they are correct then the administrator will be able to access functions and data specific to them.

A screenshot of a web browser showing the "Booki" login page. The page has a background image of a library with bookshelves. At the top, there is a navigation bar with links for "HOME", "ABOUT US", "BOOKS", "SITEMAP", and "LOG IN". Below the navigation bar, the word "LOG IN" is prominently displayed. A modal window titled "Log in" contains fields for "Email*" and "Password*". The "Email*" field is filled with "admin@booki.com" and the "Password*" field contains several dots. A "Log in" button is located at the bottom right of the modal. At the bottom of the page, there is a copyright notice: "© 2023. All Rights Reserved".



3- Update:

This operation involves allowing the admin to edit an existing record in the database. In our project the update function enables the admin to make changes to the information associated with a particular book already present in the database, the administration can edit the book information which are title, author, discount percentage and the release year he can also edit other information like category, book language book rating and the book cover image and finally the admin can edit the book description.

The screenshot shows a web browser window displaying the 'Edit book' page of the Booki application. The page has a header with the Booki logo and navigation links for HOME, ABOUT US, BOOKS, SITEMAP, ADMIN PAGE, and LOGOUT. The main content area features a large image of a library with bookshelves in the background. Overlaid on this is a form for editing a book. The form is divided into sections: 'Book Information' (Title: Book 2, Author: Book author, Release year: 2020, Price: 50, Discount Percentage %: 10, resulting in Price after discount: 45 SAR), 'Other Information' (Category: History, Book Language: Arabic, Book cover image: A placeholder image labeled 'لم يتم اختيار ملف' (No file selected)), and 'Description' (Book description: A text area containing placeholder text). At the bottom right of the form is a brown 'Edit book' button. The URL in the browser's address bar is localhost/booki/booki/book-edit.php?id=2.



4- Delete:

This operation removes records from the database, when the admin clicks on the delete button from the admin control page for a specific book title the book will be deleted, this operation will lead to the removal of the book from the database.

1-

The screenshot shows a web browser window with multiple tabs open, all titled 'Booki'. The main content area displays the 'ADMIN CONTROL' section of the Booki website. At the top, there is a navigation bar with links for 'HOME', 'ABOUT US', 'BOOKS', 'SITEMAP', 'ADMIN PAGE', and 'LOGOUT'. Below the navigation, the text 'ADMIN CONTROL' is prominently displayed over a background image of a library. A modal window titled 'Books List' is overlaid on the page, containing a table with five rows of book data. The table has two columns: 'Title' and 'Author'. The 'Title' column lists 'Book 2"', 'Book 3"', 'Book 4"', and 'Book 5"'. The 'Author' column lists 'Book author' for each row. To the right of the table, there is a 'Add Book' button. The 'Edit | Delete' link is visible next to each book entry.

Title	Author	
Book 2"	Book author	Edit Delete
Book 3"	Book author	Edit Delete
Book 4"	Book author	Edit Delete
Book 5"	Book author	Edit Delete

2-

The screenshot shows the same 'ADMIN CONTROL' page as the previous image, but now with a prominent green success message box in the center. The message reads 'The book has been deleted.' The background image of the library shelves is visible behind the message box.

In summary, CRUD queries are essential for interacting with databases, allowing administrators to create, retrieve, update, and delete data efficiently. These operations form the basis for managing and maintaining the integrity of data within a database system.



Layer separation:

- 1- Presentation layer (User Interface)
- Home page:

A screenshot of a web browser displaying the "Booki" website. The browser's address bar shows "localhost/booki/booki/index.php". The page itself has a header with the "Booki" logo, navigation links for "HOME", "ABOUT US", "BOOKS", and "SITEMAP", and a "LOG IN" button. Below the header is a large image of an open book. Overlaid on this image are two sections: "Trending books" with a "Books list" button, and "RECOMMENDED BOOKS" featuring four book covers. The book covers are separated from the background image by thin white borders. At the bottom of the page, there is a footer with the text "© 2023. All Rights Reserved" and a URL "localhost/booki/booki/book_info.php?id=5" in the status bar.



- About us page:

A screenshot of a web browser displaying the "About Us" page of the Booki website. The page has a light beige background with a large image of bookshelves in the background. At the top, there is a navigation bar with links for "HOME", "ABOUT US", "BOOKS", "SITEMAP", and "LOG IN". Below the navigation bar, the word "ABOUT" is centered in a bold, dark brown font. Underneath it, the text "Heat our company" is written in a smaller, dark brown font. There are two sections with rounded rectangular buttons: "Goal" and "Audience". The "Goal" section contains the text: "This web site is to displaying the content of the books and the comments made by subscribers can be evaluated." The "Audience" section contains the text: "The audience of this siete are people who want to see the book's content and comments before purchasing the book." Below these sections is a large image of four circular avatars of women, with the word "TEAM" above them and the text "Our rockstars!" underneath. At the bottom of the page, a copyright notice reads "© 2023. All Rights Reserved".



- Book list page:

A screenshot of a web browser displaying the "Books List" page of the Booki website. The page has a header with the Booki logo, navigation links for HOME, ABOUT US, BOOKS, and SITEMAP, and a LOG IN link. Below the header is a breadcrumb trail: Home > Books. The main content area is titled "BOOKS LIST" and displays a grid of eight book covers. The books shown include "Harry Potter and the Goblet of Fire" by J.K. Rowling, "THE BOOK OF ART" by REGINA PHALANGE, "ما وراء الطبيعة" (What Lies Beyond Nature) by Hisham Al-Sayeghi, "السيرة السحرية للأطفال" (The Magic Biography for Children) by Toma, a traditional Islamic manuscript, "TIME A STORY BY TEDDY YU" featuring a sand clock, and "START YOUR BUSINESS" by BENJAMIN SHAR. The background of the page shows a blurred image of a library interior.

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- Sitemap page:

A screenshot of a web browser showing the sitemap for the Booki website. The page has a header with the Booki logo and navigation links for HOME, ABOUT US, BOOKS, and SITEMAP. A "LOG IN" button is also present. The main content area features a large image of a library with bookshelves. Overlaid on this image is a hierarchical sitemap diagram. At the top is a box labeled "Home". Below it, four boxes branch out: "About Us page", "Book Page", "Log-in Page", and "The admin control panel Page". A final box at the bottom is labeled "Book info". A copyright notice "© 2023. All Rights Reserved" is visible at the bottom of the page.

- Admin control page:

A screenshot of a web browser showing the admin control page for the Booki website. The layout is similar to the sitemap page, with the Booki logo and navigation links at the top. The "ADMIN PAGE" link is highlighted in the navigation bar. The main content area features a large image of a library. Overlaid on this image is a heading "ADMIN CONTROL". Below this is a table titled "Books List" with columns for "Title" and "Author". The table contains five entries, each with a "Edit | Delete" link. A "Logout" link is located in the top right corner of the content area. A "Add Book" button is positioned in the top right corner of the table header.



- Book information

Book Information

Was 100 SAR Now 75 SAR



The book cover features a circular image of a person standing on a beach at sunset, with a bright light source in the background. The title 'ما وراء الحبيب' is written in large, stylized Arabic calligraphy at the top, and 'كتاب للكاتب الشابBook 4' is at the bottom.

Title	Book 4
Author	Book author
Release Year	2012
Category	Fiction
Rating	/ 10
Description	Book description

Users Comments:

Write a comment

Name*

Rating [1-10]*

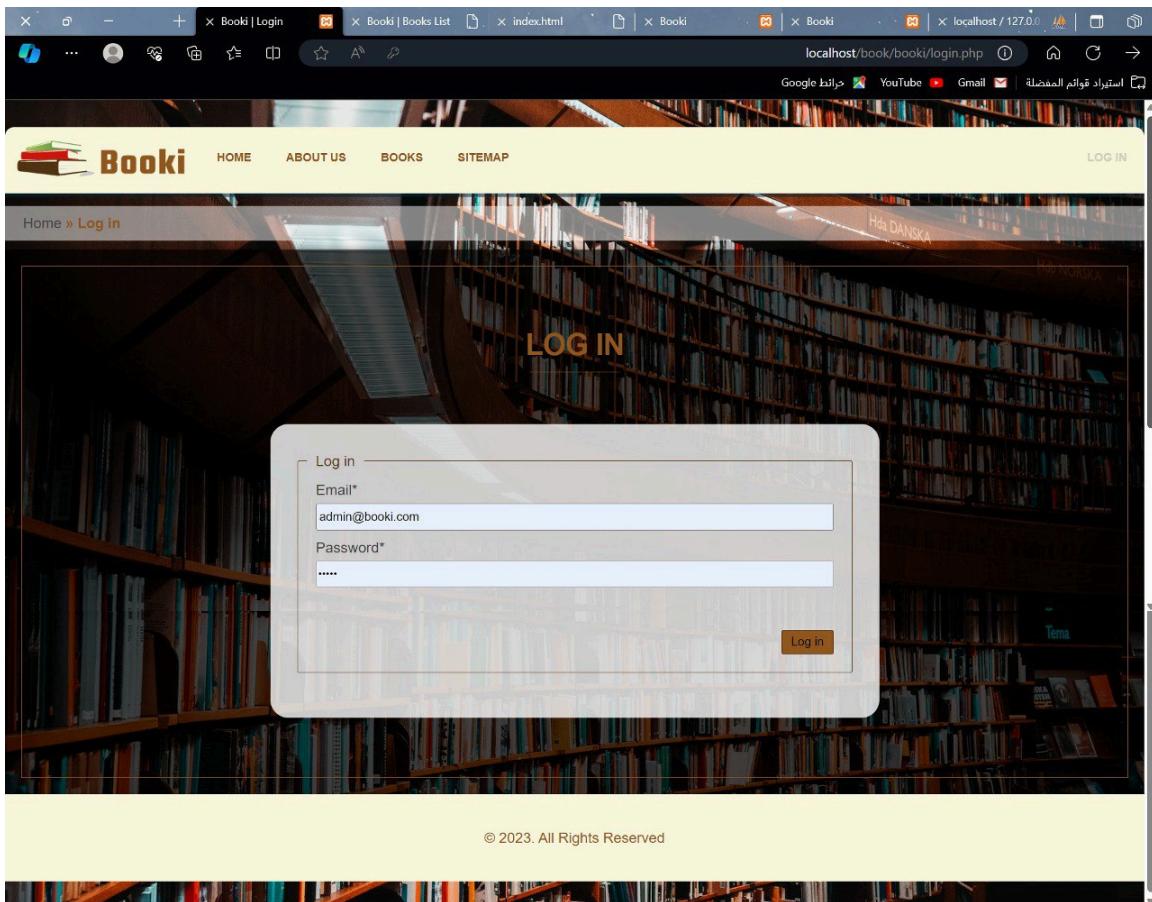
Write your comment

Send



2- Business layer (Application layer)

- Login page:



A screenshot of a web browser showing the login page for a website called "Booki". The page has a background image of a library interior with bookshelves. At the top, there is a navigation bar with links for "HOME", "ABOUT US", "BOOKS", "SITEMAP", and "LOG IN". Below the navigation bar, the word "LOG IN" is prominently displayed in large, bold letters. A central modal window titled "Log in" contains fields for "Email*" (with "admin@booki.com" entered) and "Password*" (with "*****" entered). A "Log in" button is at the bottom of the modal. At the bottom of the page, there is a footer with the text "© 2023. All Rights Reserved".



- Add new book page:

The screenshot shows a web browser window for the Booki platform. The URL in the address bar is `localhost/booki/booki/book-add.php`. The page title is "Booki | Add book". The main content is a form titled "ADD NEW BOOK" set against a background image of a library interior. The form is divided into sections: "Book Information" (Title*, Author*, Release year*, Price, Discount Percentage %), "Other Information" (Category: History, Book Language: Arabic, Book cover image: "لم يتم اختيار ملف" / "No file selected"), and "Description" (Description text area). A "Add book" button is at the bottom right of the form. The top navigation bar includes links for "HOME", "ABOUT US", "BOOKS", "SITEMAP", "ADMIN PAGE", and "LOGOUT". The footer contains the copyright notice "© 2023. All Rights Reserved".



- Edit book page:

A screenshot of a web browser displaying the "Edit book" page of the Booki system. The page is set against a background image of a library interior with bookshelves filled with books. The title of the page is "BOOK 2".

The page includes the following fields:

- Book Information**
 - Title*: Book 2
 - Author*: Book author
 - Release year*: ٢٠٢٣
 - Price: ٤٥
 - Discount Percentage %: ١٠
 - Price after discount: 45 SAR
- Other Information**
 - Category: History
 - Book Language: Arabic
 - Book cover image: (Placeholder: لم يتم اختيار ملف / لم يتم اختيار ملف)
- Description**
 - Description: Book description

At the bottom right of the form area is a brown "Edit book" button. At the very bottom of the page, a light yellow footer bar contains the text "© 2023. All Rights Reserved".



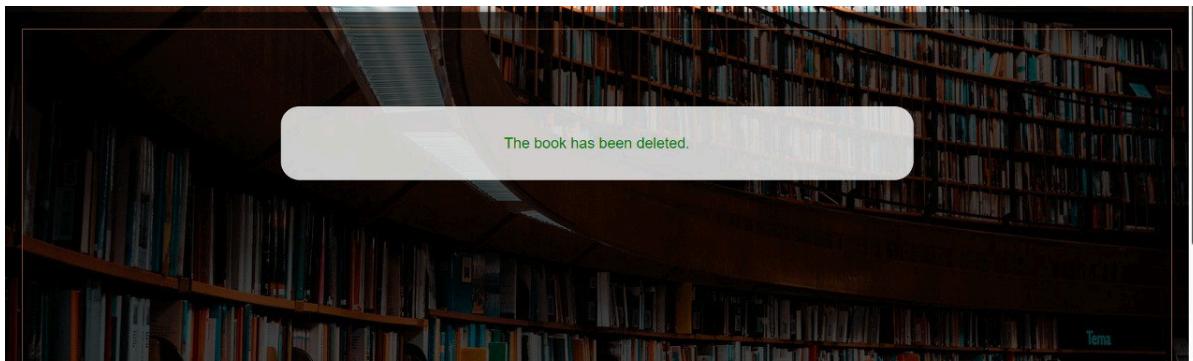
- Delete a book:

1-(from the admin control page select delete)

A screenshot of a web browser displaying the Booki Admin Control page. The page has a header with the Booki logo and navigation links for HOME, ABOUT US, BOOKS, SITEMAP, ADMIN PAGE, and LOGOUT. The main content area is titled "ADMIN CONTROL" and contains a "Books List" table. The table has two columns: "Title" and "Author". Five rows are listed, each with a "Delete" link in the "Author" column. The "Delete" link for the second row is highlighted with a red box. A "Add Book" button is located at the top right of the table area.

Title	Author	
Book 2"	Book author	Edit Delete
Book 3"	Book author	Edit Delete
Book 4"	Book author	Edit Delete
Book 5"	Book author	Edit Delete

2-





3- Data layer:

```
<?php  
$dbserver="localhost";  
  
//username of the MySQL server  
$dbusername="root";  
  
//password  
  
$dbpassword="";  
  
//database name  
$dbname="booki";  
  
$conn=false;  
$message = "";  
  
function conndb() {  
    global $conn, $dbserver, $dbname, $dbpassword, $dbusername;  
    global $message;  
  
    $conn = mysqli_connect($dbserver, $dbusername, $dbpassword);
```



```
if (!$conn)

    $message = "Cannot connect to server";

else if (!@mysqli_select_db($conn, $dbname))

    $message = "Cannot select database";


if ($message)
    die($message);

}

function executeQuery($query) {

global $conn;

if(!$conn)
    conndb();

$result = mysqli_query($conn, $query);

closed();

if(!$result)
    $message = "Error while executing query.<br/>Mysql Error: " .
    mysqli_error($conn);

else
    return $result;
```



{



```
function z6losed() {  
    global $conn;  
  
    if(!$conn)  
        mysqli_close($conn);  
}  
<?
```



We also performed the layers separation by using 3 devices one for each layer (Presentation, Business, Data):

Device number 29 will be the business tier (web server)

Device number 24 will be the data tier (database)

Device number 30 will be the presentation tier

All devices must be connected in the same network, device number 29 contains the website codes, the connection code to the database, the device number 24 the server of the database and the database , then in XAMPP we run Apache in D₂₉ and in D₂₄ we run Apache and the MySQL.

D₂₉ we put the localhost, which is the ID of the D₂₄ with the database port 3306 then the web server will connect to the data base server .

As for D₃₀ we will open any browser and type the search ID number of D₂₉ with port 80, it will display your website, thus we have achieved three levels.

(We attached a video showing the process)

