The World Islamic Science and Education University

جامعة العلوم الاسلامية العالمية

Faculty of Information Technology

كلية تكنولوجيا المعلومات

GRADUATION PROJECT

GREEN PAGES

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Finally, thanks very much to WISE University, especially the Information Technology faculty and everyone who created it.

Abstract

We have received the idea of a project, which is an Internet application that provides all academic, social and novel books, and the types of books are either e-books in PDF format, and they are often free, or printed books and delivered to the customer at a nominal cost.

The platform aims to save time and effort in searching for the right book, not to go to public libraries, and work to save the cost of going to the library and reduce the spread of some infectious diseases such as the Corona virus.

The platform's work will be implemented on the PHP programing language,and in terms of design, BootStrap offices will be used.

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Chapter 1: Introduction

1.1 Overview

This chapter explains the problems with the current system that led us to create a website that addresses these issues, as well as the objectives of the new system and the methodology that will be used.

1.2 Problem Statement

Going to public offices may drain some time and money, and some customers may not find the right book to read or take information from, which leads to wasted efforts.

Presence in public places such as libraries may lead to a large spread of disease, and this leads to the closure of the library for a period of time and will affect its work and its economy.

1.3 Project objectives

- Save time, effort and money in searching for the right book.
- Identify all suitable and suggested books and build a good background for the client.

1.4 Research Strategy

This project uses **The Incremental Model of SDLC** is a process of software development where requirements are divided into multiple standalone modules of the software development cycle. In this model, each module goes through the requirements, design, implementation, and testing phases. Every subsequent release of the module adds function to the previous release. The process continues until the complete system is achieved.

The various phases of the incremental model are as follows:

1. **Requirement analysis**: In the first phase of the incremental model, the product analysis expertise identifies the requirements. To develop the software under the incremental model, this phase performs a crucial role.

2. **Design & Development**: In this phase of the Incremental model of SDLC, the design of the system functionality and the development method is finished successfully. When software develops new practicality, the incremental model uses the style and development phase.

3. **Testing**: In the incremental model, the testing phase checks the performance of each existing function as well as additional functionality. In the testing phase, various methods are used to test the behavior of each task.

4. **Implementation**: The implementation phase enables the coding phase of the development system. the project team creates the actual product. Project developers begin building and coding the software. After completion of this phase, the number of the products working is enhanced and upgraded up to the final system product.

1.5 Gantt chart

Figure 1:Gantt chart

1.6 Project outline

Chapter 1: A summary of the problem to be solved, the objectives of the project to be built, and the action plan with a clarification of its steps.

Chapter 2: Comparing the system with other existing systems and reaching its conclusion accordingly the system was built in the best way.

Chapter 3: Feasibility study and methodology used in the project, functional and non-functional requirements.

Chapter 4: Show how the system works by a set of diagrams in the easiest and simplest way and show how to use the system.

Chapter 5: In this chapter, we will talk about implementation and evaluation. With an explanation of each implementation and how it was implemented

Chapter 6: A summary of the project and its future work.

Chapter 2: Literature review

2.1 Overview

This chapter discusses a comparison between several "**Green Pages**" pages and the difference between our site and these sites.

2.2 Related Work

2.2.1 Thegoodbookshop.com

In a nutshell, The Good Book Shop is a local Jordanian startup founded in May 2005 by an individual who was eager to contribute to the local community through education, literacy, and culture. The venture goal is to support Jordanian businesss, hire and train young local talent and enrich Amman's literary environment.

The Good Book Shop is an urban get-away for locals and a hidden gem to be discovered by Amman's global guests.

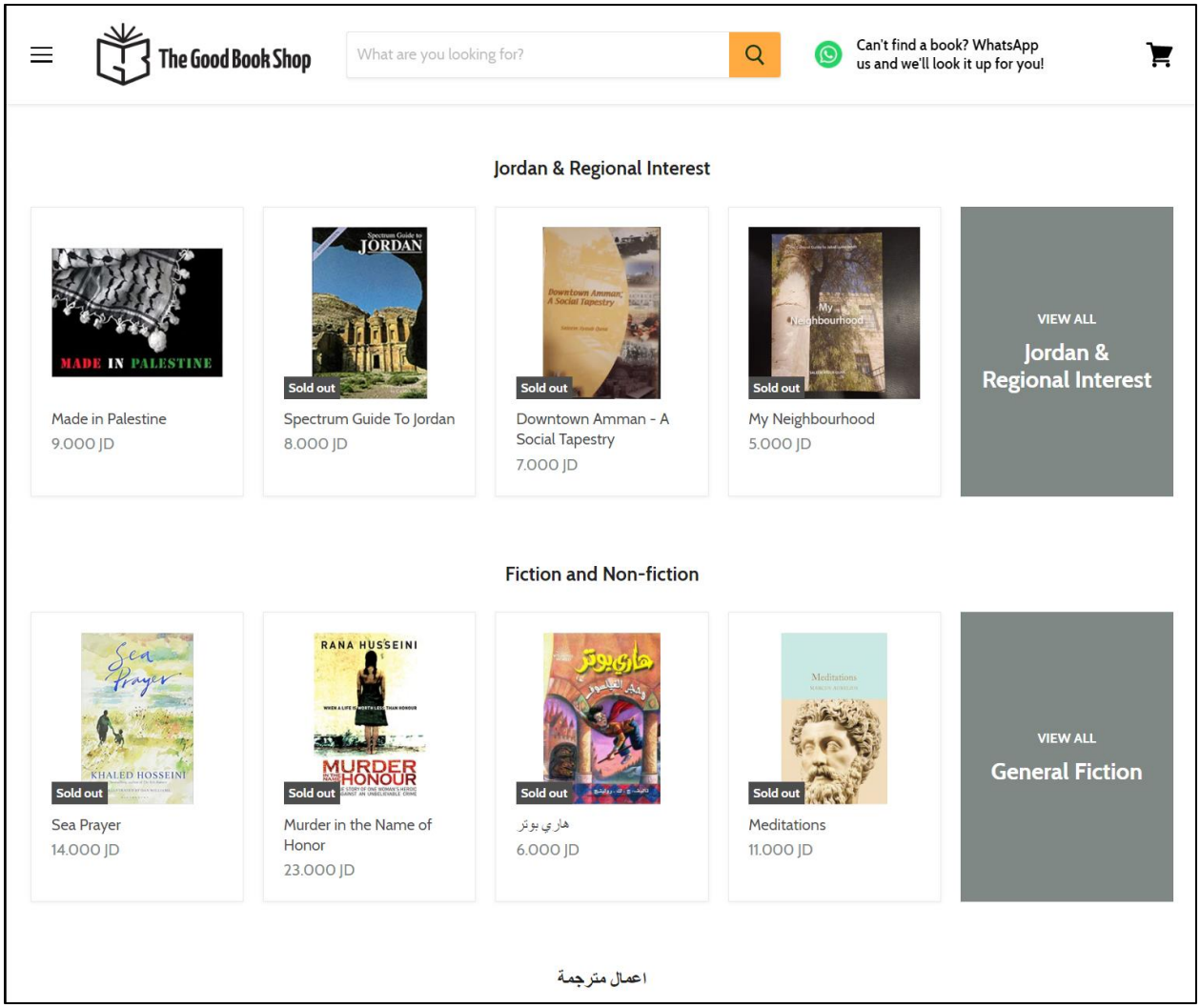

Figure 2: The Good Bookshop

2.2.2 Bookshop.org

Our Story: Bookshop.org began as an idea to help support bookstores and their communities at a time when more and more people were buying their books online. We saw an opportunity to create an alternative to Amazon for socially-conscious online shoppers. Amazon sells over 60% of all books in the US and is growing. That shift threatens the future of bookstores and will hurt readers, authors, and publishers who rely on a diverse, healthy ecosystem for books. We had a better idea — give readers the convenience of online shopping while supporting independent bookstores at the same time.

We launched in January of 2020, with just 88 bookstore partners and a team of four passionate book people.

As the COVID-19 pandemic surged, our growing platform helped our community of independent booksellers survive shutdowns. That spring, traffic to Bookshop.org hit 1 million users in a single day. By the end of 2020 we had grown to over 1,000 bookstores, raised over ten million dollars for our profit-sharing pool, and 78% of our customers said they regularly bought books from Amazon before they made the switch.

Bookshop.org has since expanded internationally, launching Bookshop.org UK and Bookshop.org Spain. As a Climate Neutral company, we are committed to operating sustainably. Certified as a B Corp, Bookshop.org puts our mission and the public good above financial interests, giving over 80% of our profit margin to independent bookstores. It is written in our governance documents that we will never sell the company to Amazon or any major U.S. retailer.

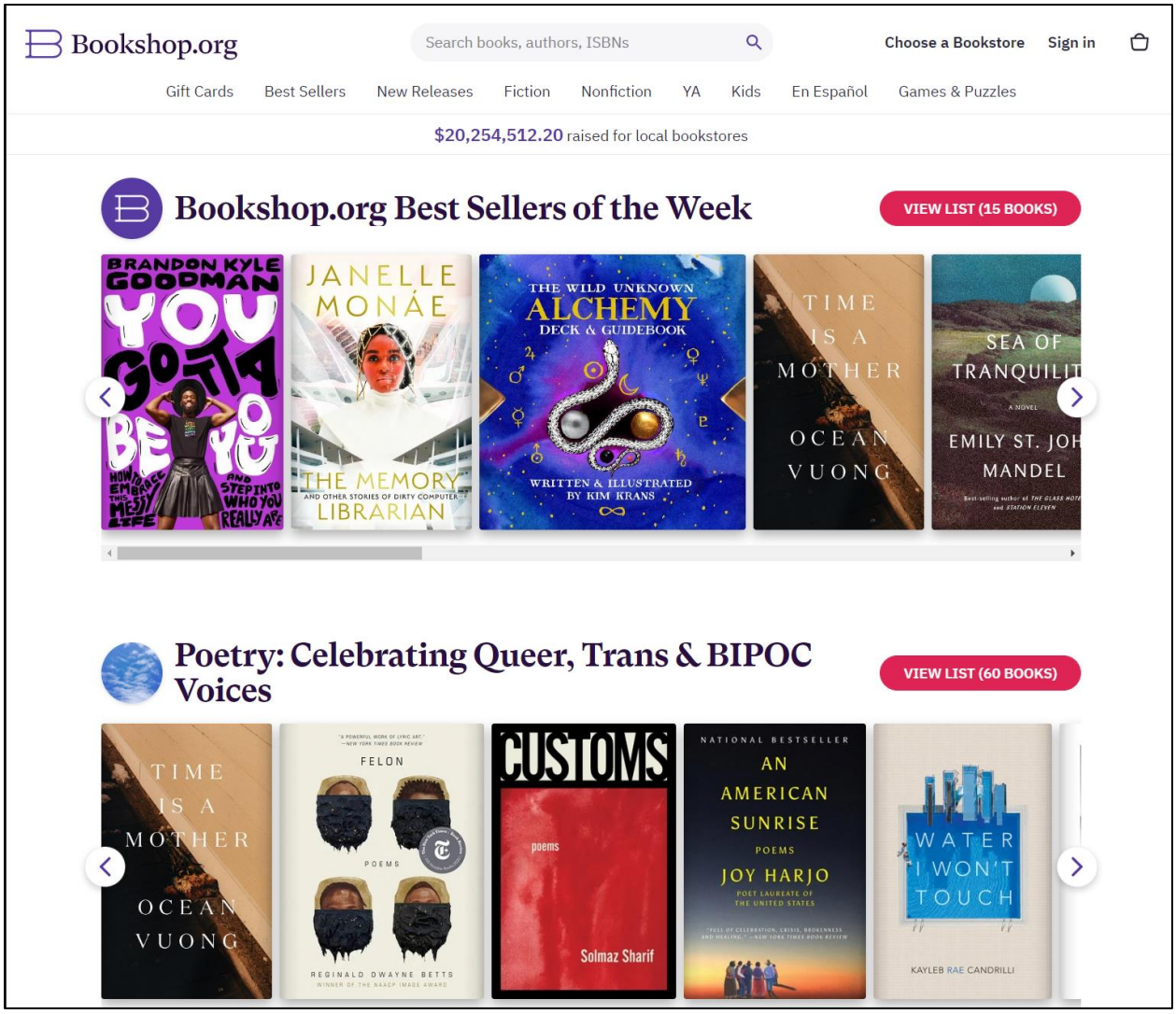

Figure 3: bookshop.org

2.3 Summary

Comparisons	The Good Book Shop	Bookshop.org	GREEN PAGES BOOKSTORE
Online payment	✓	✓	✗
Print books	✗	✓	✓
Sort categories	✗	✓	✗
Reviews	✗	✗	✓
Home Delivery	✗	✓	✓

Table 1: Comparisons

Chapter 3: Methodology

3.1 Overview

This chapter discusses tools used to get the work done, our feasibility study, the requirement (functional and non-functional), and the methodology process of how the project is done.

3.2 Feasibility Study

A feasibility study is a preliminary study undertaken before the real work of a project starts to ascertain the likelihood of the project's success. It is an analysis of possible alternative solutions to a problem and a recommendation on the best alternative. It, for example, can decide whether an order processing be carried out by a new system more efficiently than the previous one. A feasibility study could use to test a new working system, which could use because:

- The current system may no longer suit its purpose.
- Technological advancement may have rendered the current system redundant.
- The business is expanding, allowing it to deal with an extra workload.
- Customers are complaining about the speed and quality of work the business provides.

Economic feasibility study:

This involves questions such as whether the university can afford to build the system, whether its benefits should substantially exceed its costs, and whether the project has a higher priority. This also includes that whether the project is in the condition to fulfill all the eligibility criteria and the responsibility of both sides in case there are two parties involved in performing any project.

1. The system Economically Feasibility.
2. Hardware, Software, and Others.

Technical Feasibility:

- Accuracy.
- Reliability.

Operation Feasibility:

1. Work property if it is being developed and implemented.
2. Easy to maintain.

3.3 Requirements

3.3.1 Functional requirements:

A. Admin portal:

- Enter all book details
- Enter location details
- Upload a PDF file for free books
- Setting the price for printed books

B. User portal:

- Choose a book category
- Browse all books
- Communicate with the administration with all the details and information
- Download book file
- Browse the book's location through Google Maps

1.3.2 Non-functional requirements:

1. Platform usability:
   Our project was concerned that its content is clear and brief because there is no difficulty in reaching any required goal.

2. Simple navigation:

A. Work on the search base in three steps.
B. Creating for users with different cognitive processing, or interests.

3. Authentication:
   In this system, we have always used unique email addresses, login information, and username for each user.

4. Electronic payment:
   The payment feature has been linked to PayPal accounts.

3.3.3 Tools

- Visual studio code
- XAMMP
- PHPmy Admin
- Drow.io Diagram
- Office 365(Word, PowerPoint, Timeline)

3.4 Methodology process

This project adopted the Incremental method for building the Green Pages system. Based on that system was created in 4 increments as shown in the next figur.

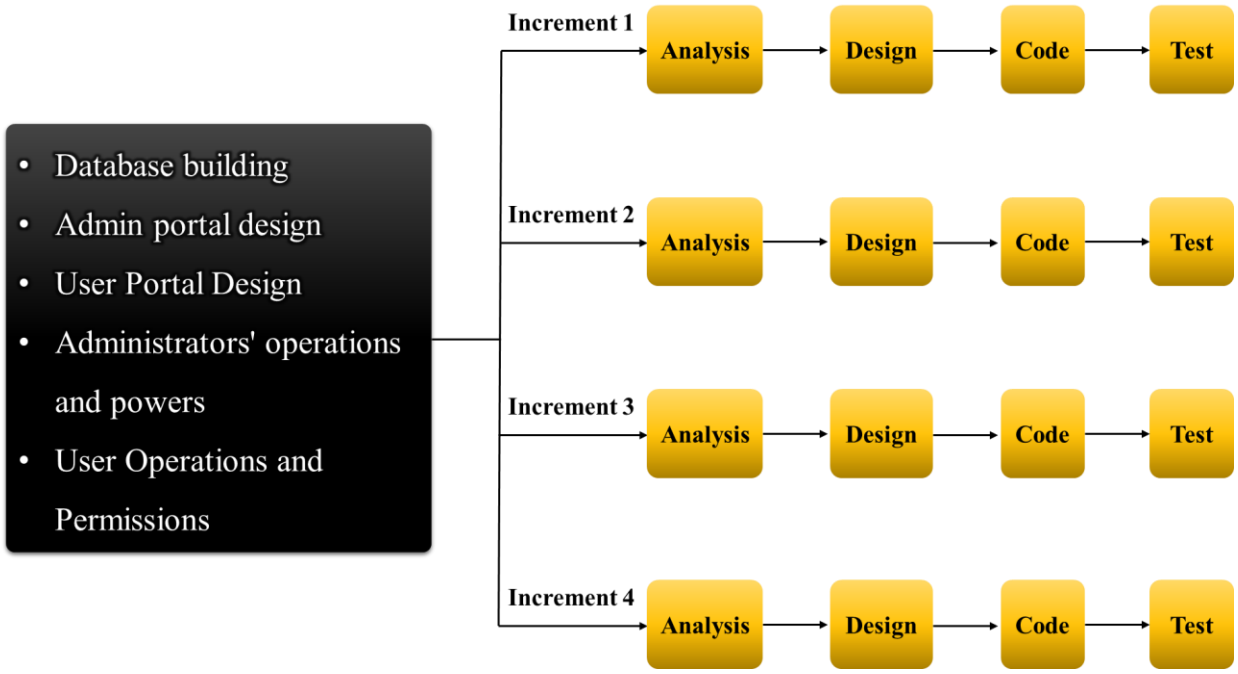

Figure 4: Methodology process of the Incremental Model of SDLC

The system is put into production when the first increment is delivered. The first increment is often a core product where the basic requirements are addressed, and supplementary features are added in the next increments. Once the core product is analyzed by the client, there is plan development for the next increment.

Characteristics of an Incremental module includes:

- System development is broken down into many mini development projects.
- Partial systems are successively built to produce a final total system.
- Highest priority requirement is tackled first.
- Once the requirement is developed, requirement for that increment are frozen.

Chapter 4: Design Models

4.1 Overview

In this chapter, we are talking about how to design and build relationships between system components by using sous diagrams such as the context diagram, the use case diagram, data flow diagram, ER diagram.

4.2 Context diagram

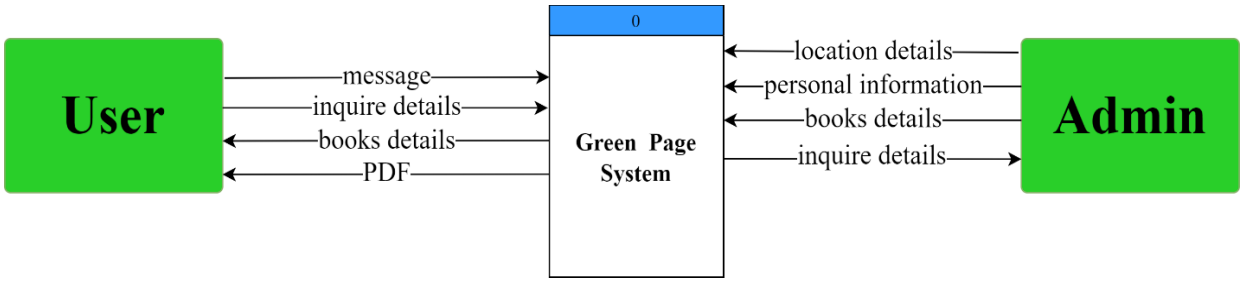

Figure 5: Context diagram

4.3 Use Case Diagram

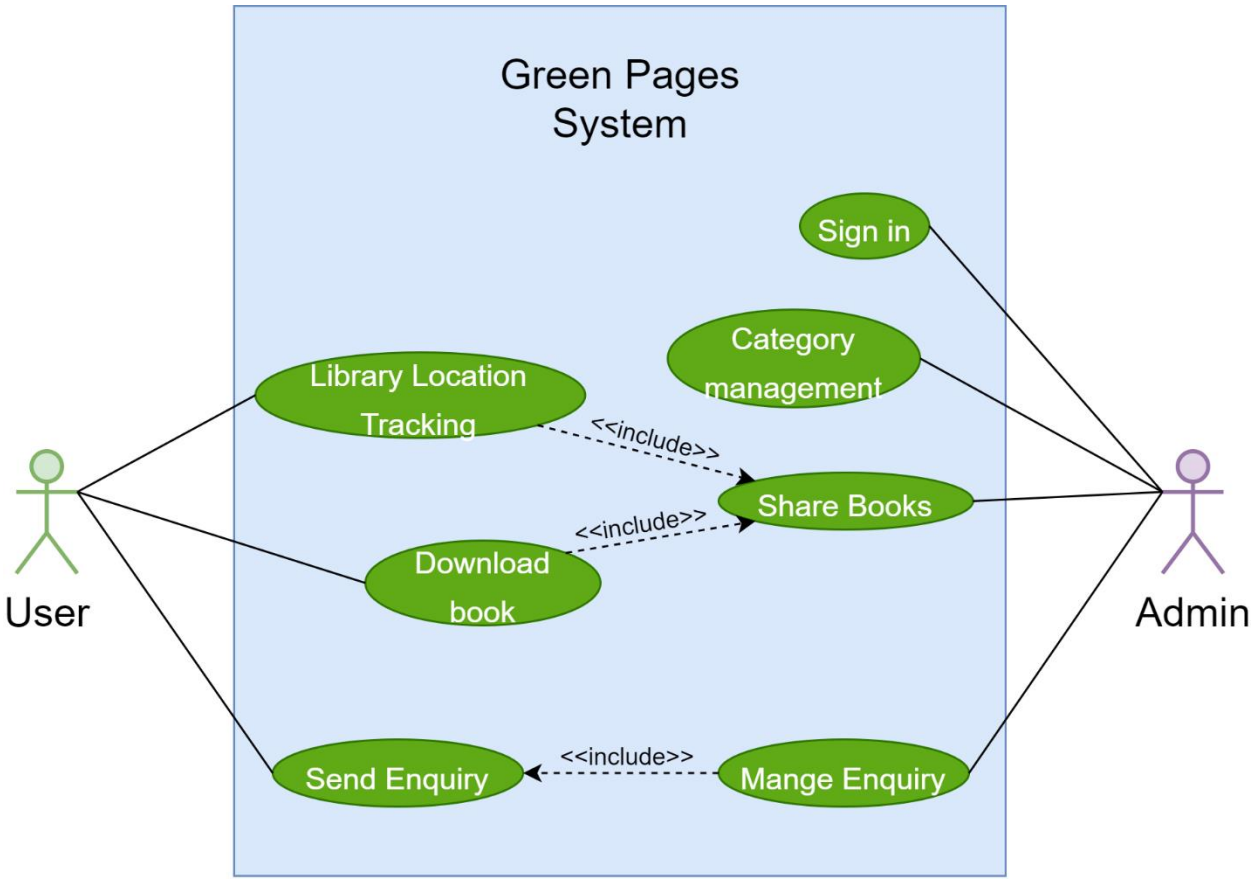

Figure 6: Use Case Diagram

4.4 Data flow Diagram

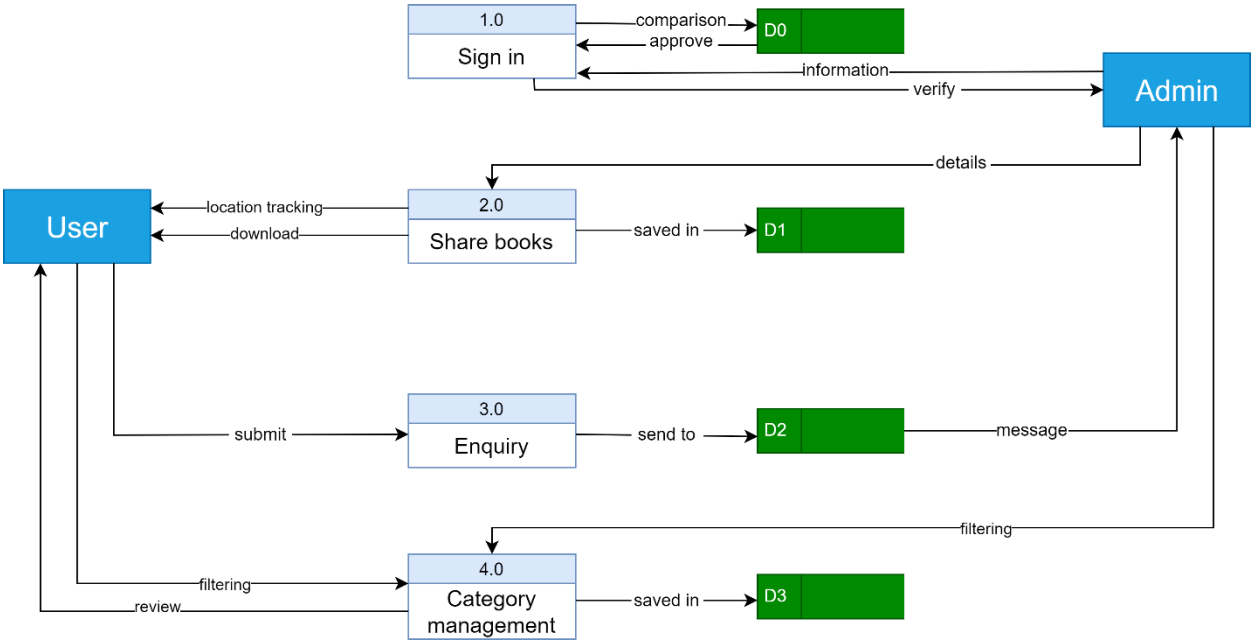

Figure 7: Data flow Diagram

4.5 ER Diagram

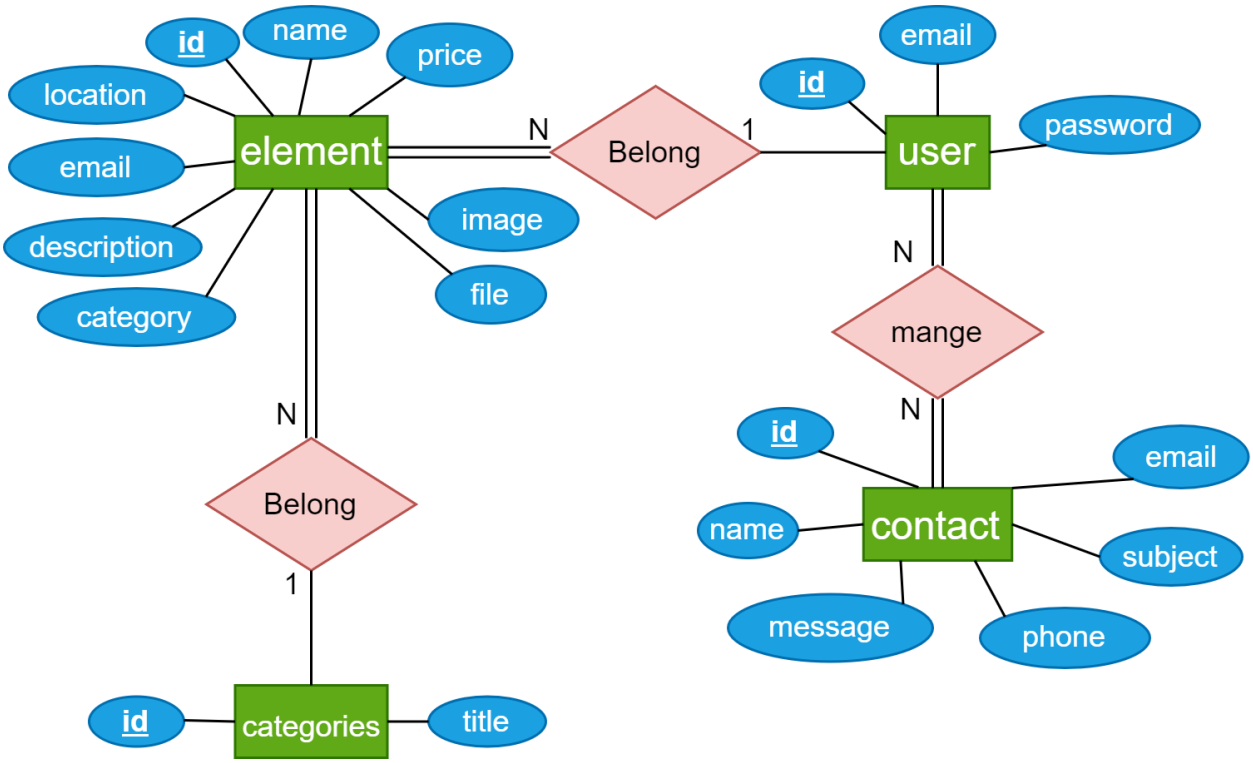

Figure 8: ER Diagram

Chapter 5: Experiments and results

5.1 Overview

In this chapter, we will talk about how we test the system with the intent to find whether it satisfies the specified requirement or not.

5.2 Testing methodologies

The tests will be divided into tow units of tests.

5.2.1 Unit Testing.

Tow types of portals are included, the first for the Admin and the second for the User

5.2.1.1: User portal

1. Home page:
   Care has been taken to make the website design comfortable and modern, especially on the home page.

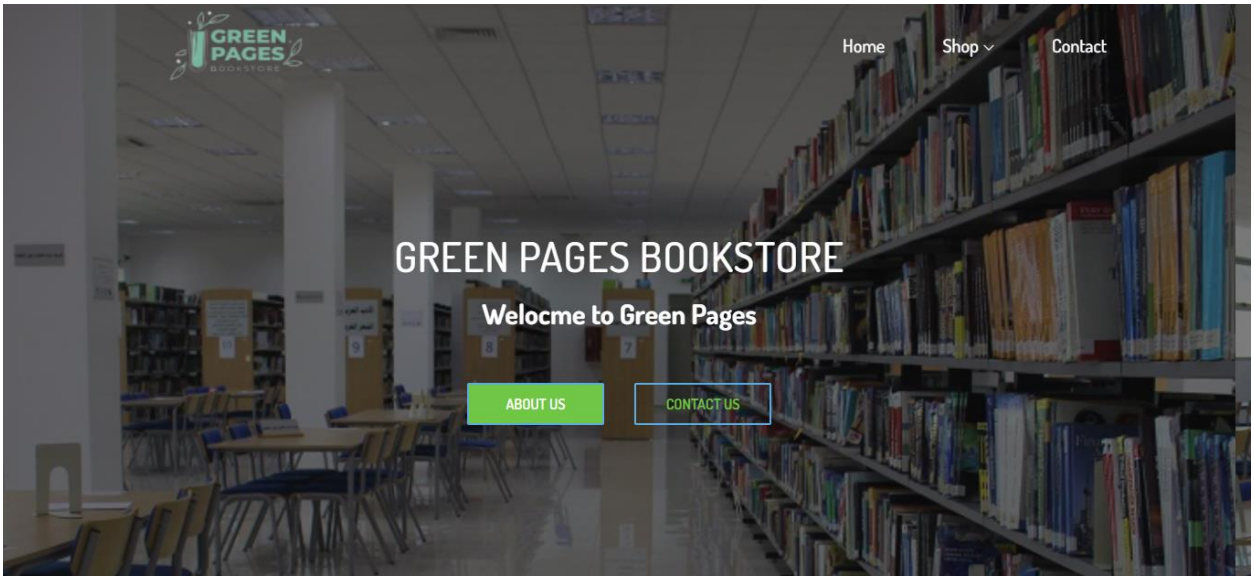

Figure 9: Home page

2. Booke shop

The following figure shows how to view free and paid books

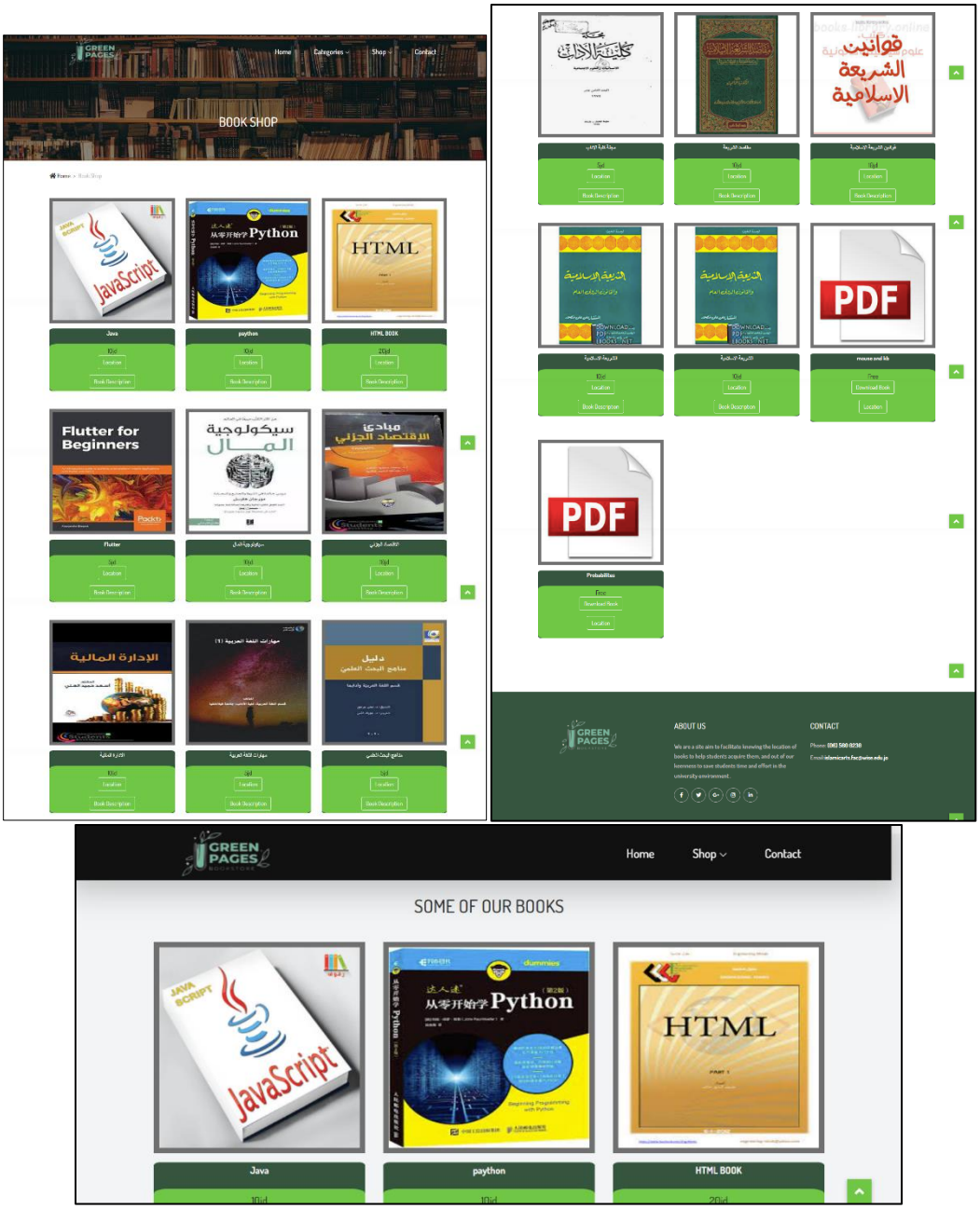

Figure 10: Book shop

3. Contact us box
   In this box, the customer can contact us for some inquiries through the email submitted or the phone number of the establishment, and he can also send all his inquiries to the administration to be reviewed by the administrator and a decision on the matter.

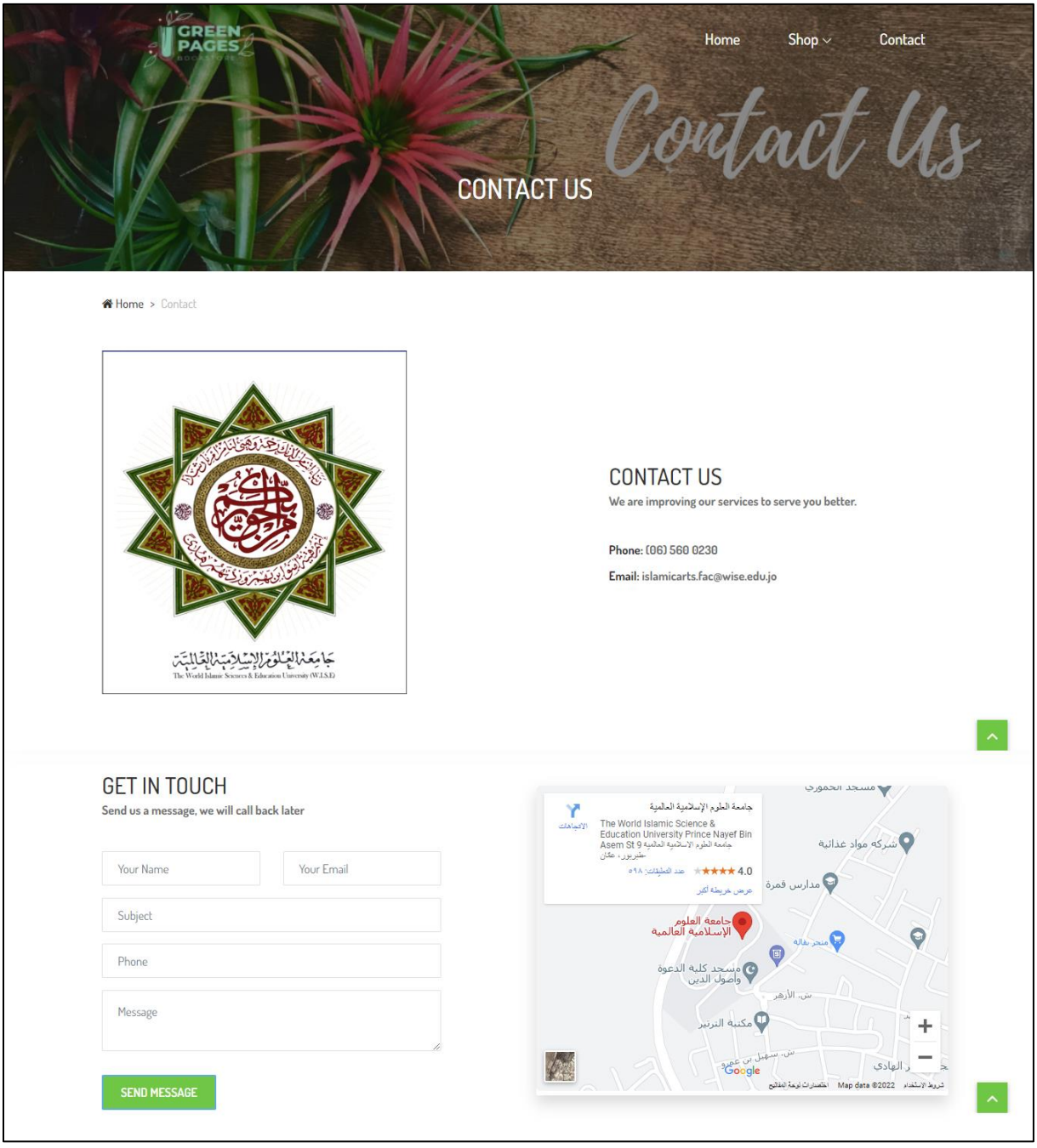

Figure 11: contact us

5.2.1.2: Admin portal

1. Login page
   The ability of the admin to access his personal account has been validated and the process is proceeding correctly.

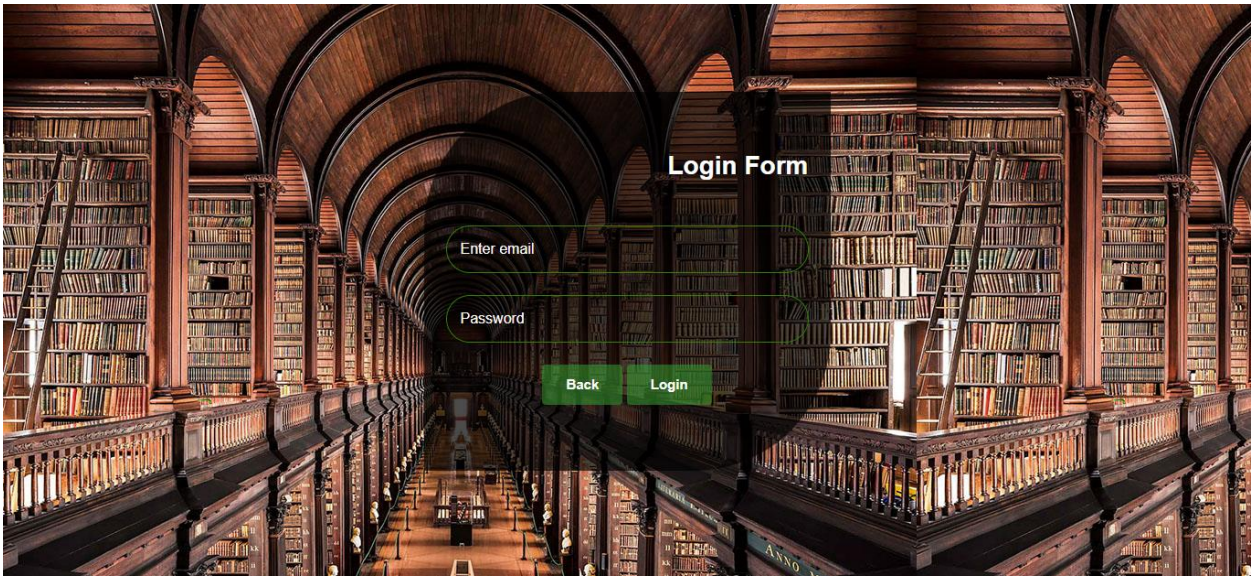

Figure 12: Login page

2. Admin dashboard
   The following figure shows the most important powers of the admin in order to be able to add the new book and all its details related to it.

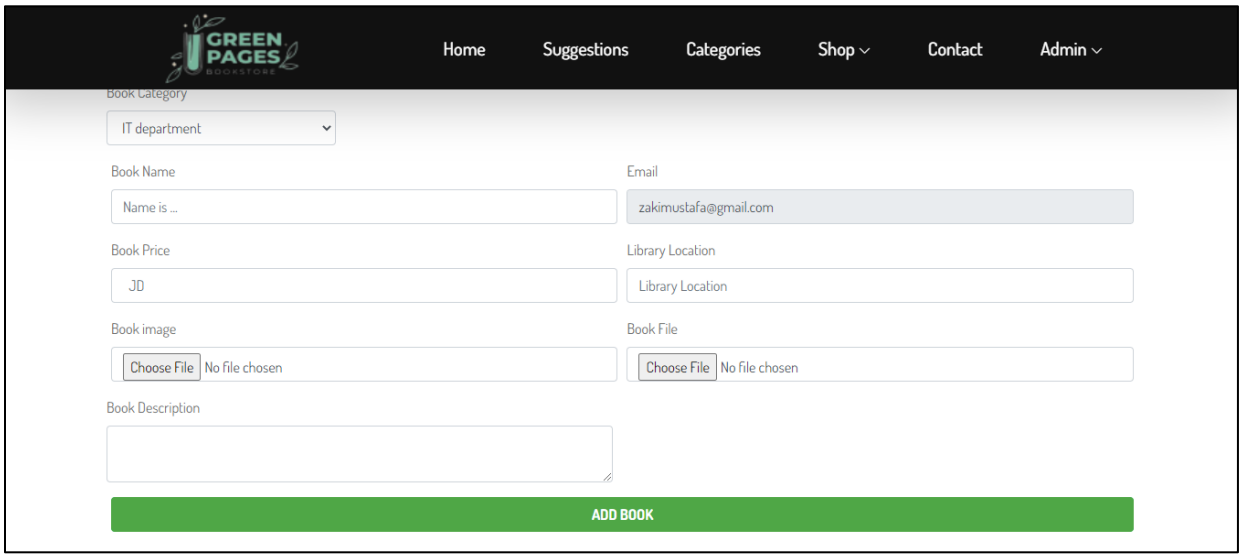

Figure 13: Admin dashboard

3. Categories page
   The following figure shows the ability of the admin to add and modify some of the categories to which the books displayed on the website belong.

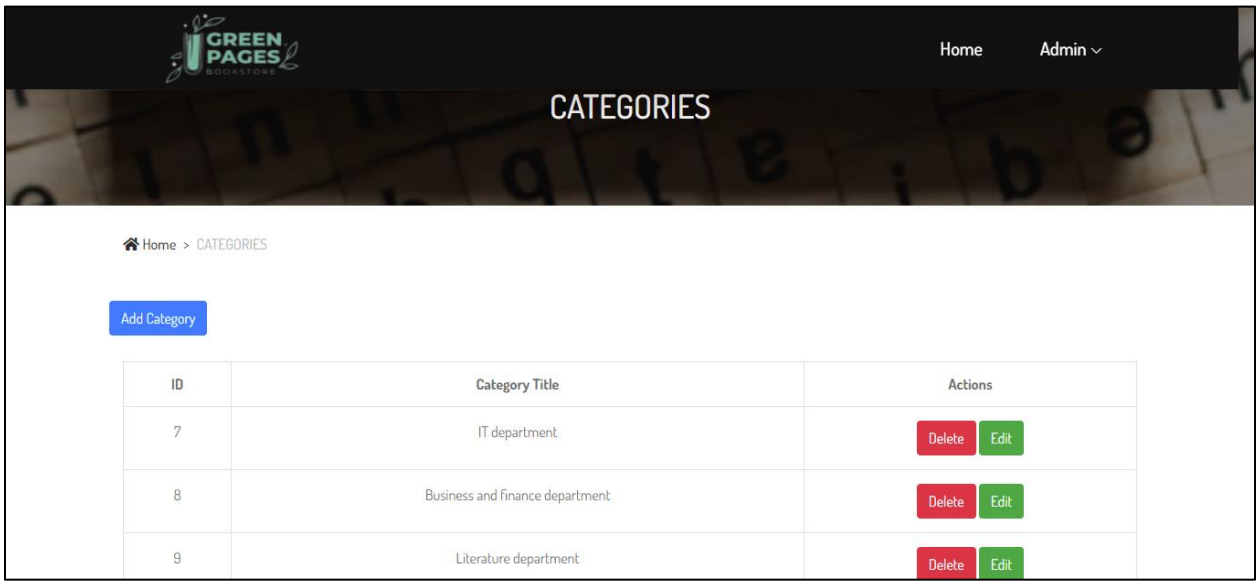

Figure 14: Categories page

4. Suggestions page
   In the following figure, a table shows some suggestions or complaints from customers.

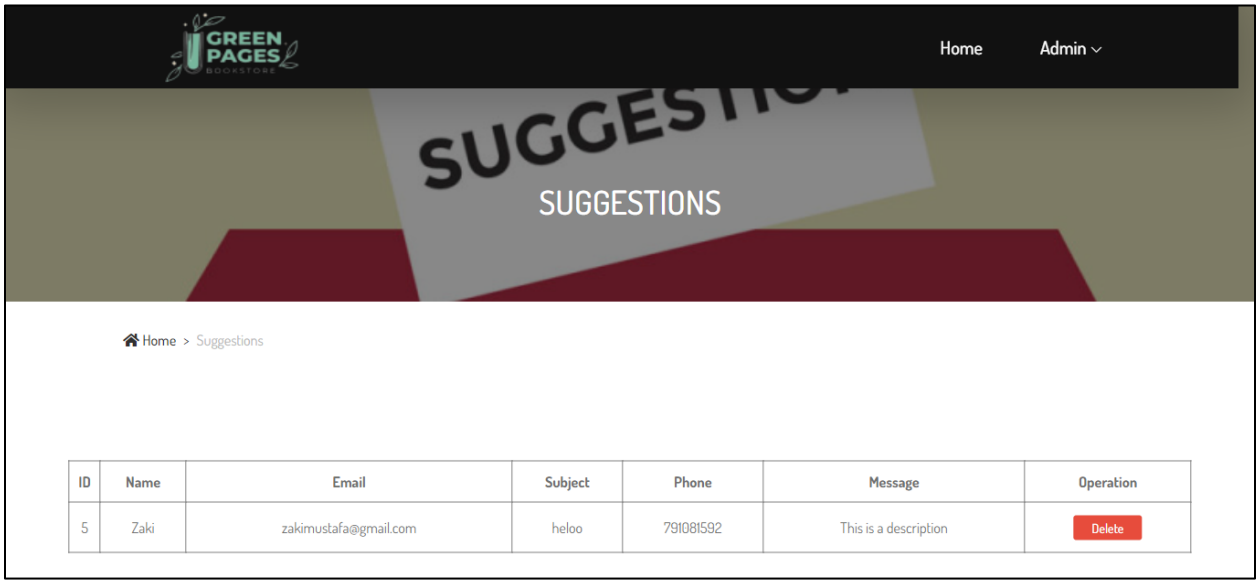

Figure 15: Suggestions page

5.3 Integration testing

The table that unfortunately shows what errors appeared during the test, and how they were fixed.

Number of unit	Error	Fixed
5.2.1.1	The lack of customer suggestions to the admin correctly and the presence of some lack of features.	The writing of the special code was tracked in receiving the data stored in the databases, and an amendment was made to the names of the attributes in the correct manner due to an error in the order and spelling.
5.2.1.2	Bug in the book's cash price offer.	It has been modified with the bootstrap code and retrieved the correct class from the bootstrap library.

Table 2: Integration testing

5.4 System results

After checking all stages of the test, the system is functional and correct.

Chapter 6: Conclusion

6.1 Conclusion

This project satisfies the objective that was already declared earlier.

6.2 Future Work

- Add system notifications messages.
- Implementation to another language.
- Convert it to an Android and iOS operation system.
- Implement auto plagiarism check.

REFERENCES

[1] https://www.w3schools.com/
To use some code for design and some programming issues

[2] https://stackoverflow.com/
To come up with some solutions to the problems we were facing

[3] https://www.javatpoint.com/software-engineering-incremental-model
The site from which we derived the study strategy

[4] https://www.investopedia.com/terms/f/feasibility-study.asp
The site that inspired the feasibility study

[5] https://thegoodbookshop.com/
The websitethat is similar to our project

[6] https://bookshop.org/
The website that is similar to our project

Appendix

Rest of figures:

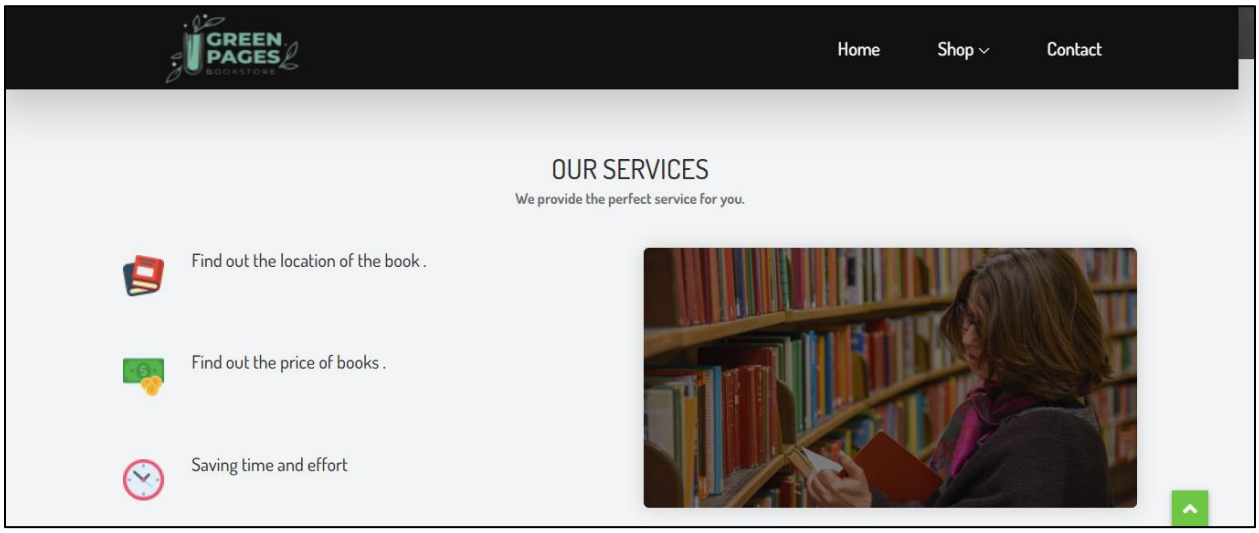

Figure 16: Our Service

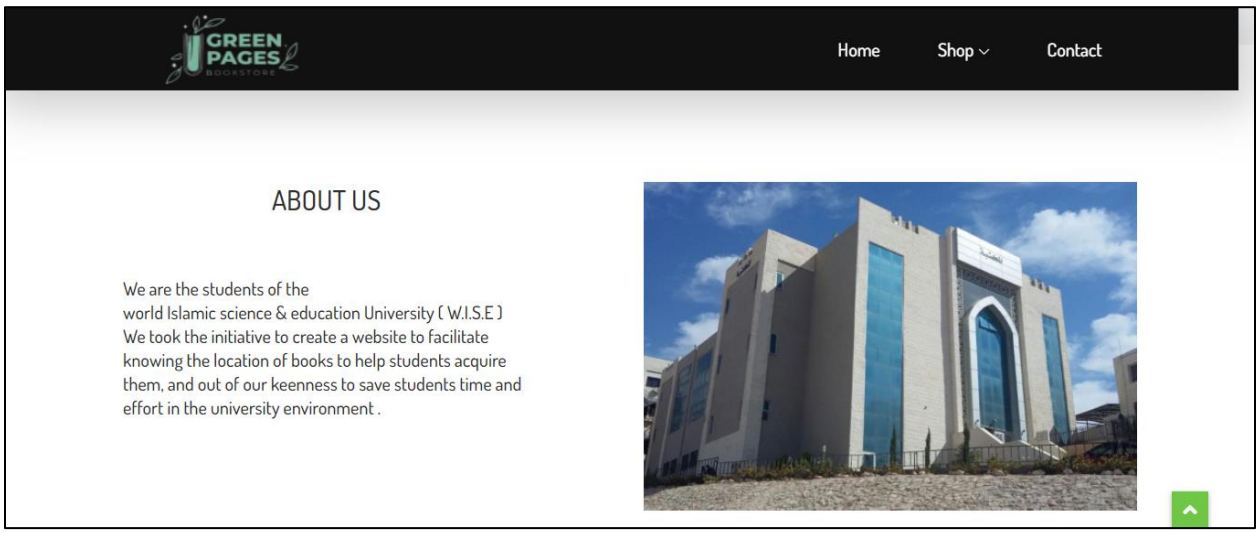

Figure 17: About Us

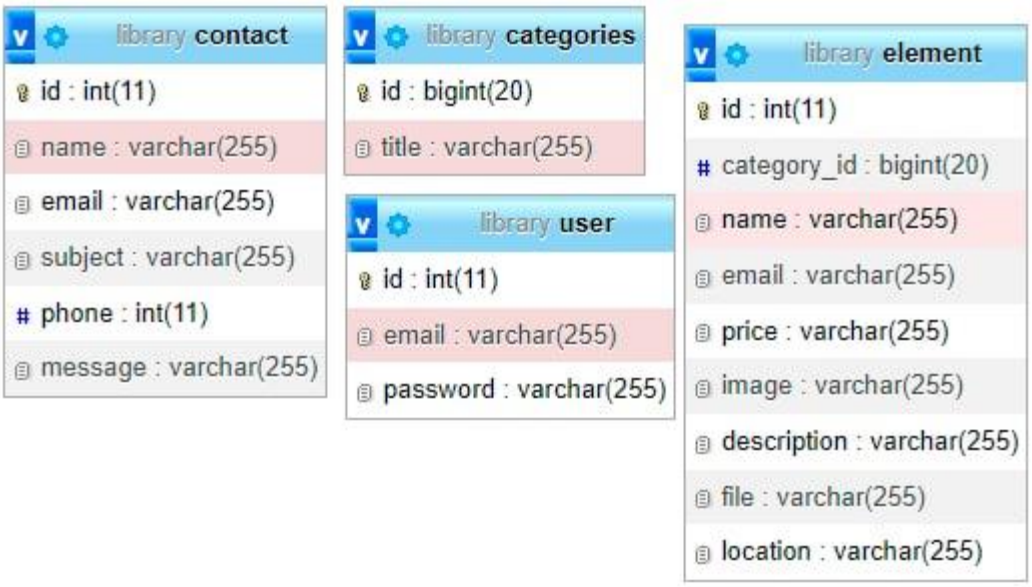

Figure 18: Database

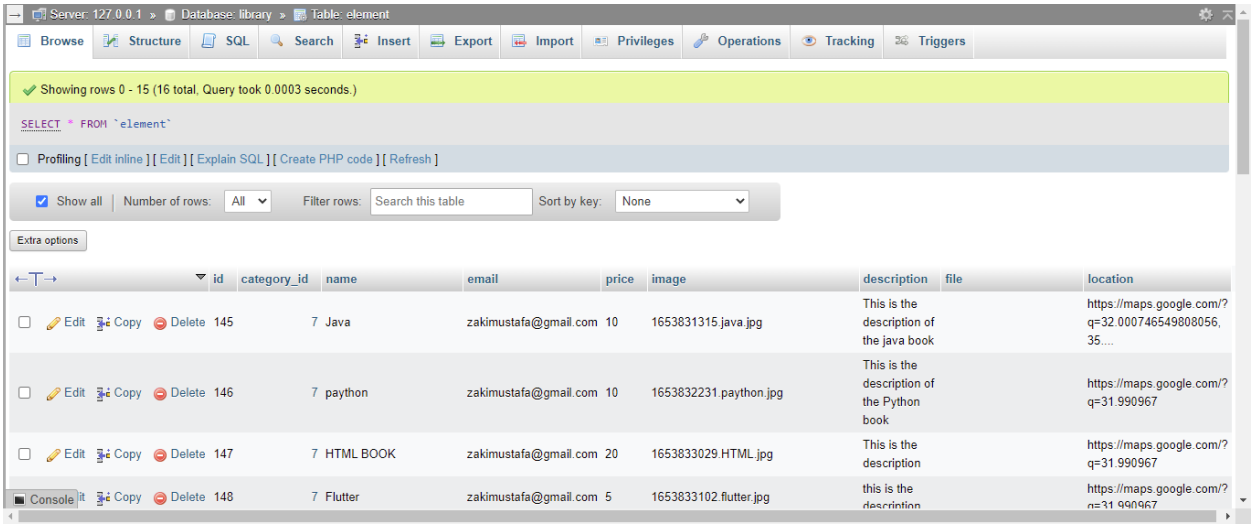

Figure 19: element table

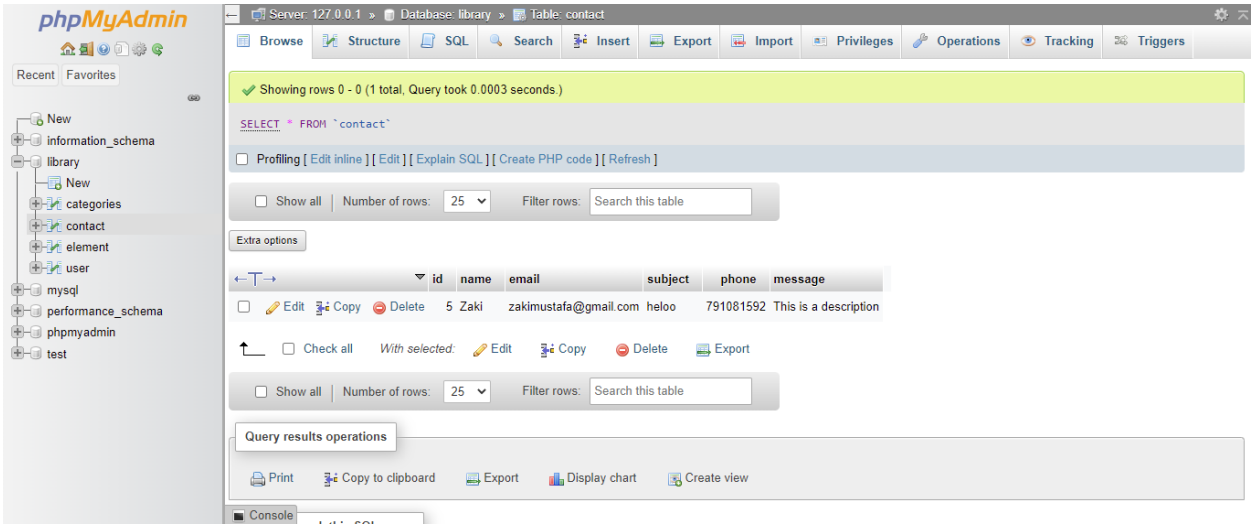

Figure 20: contact table

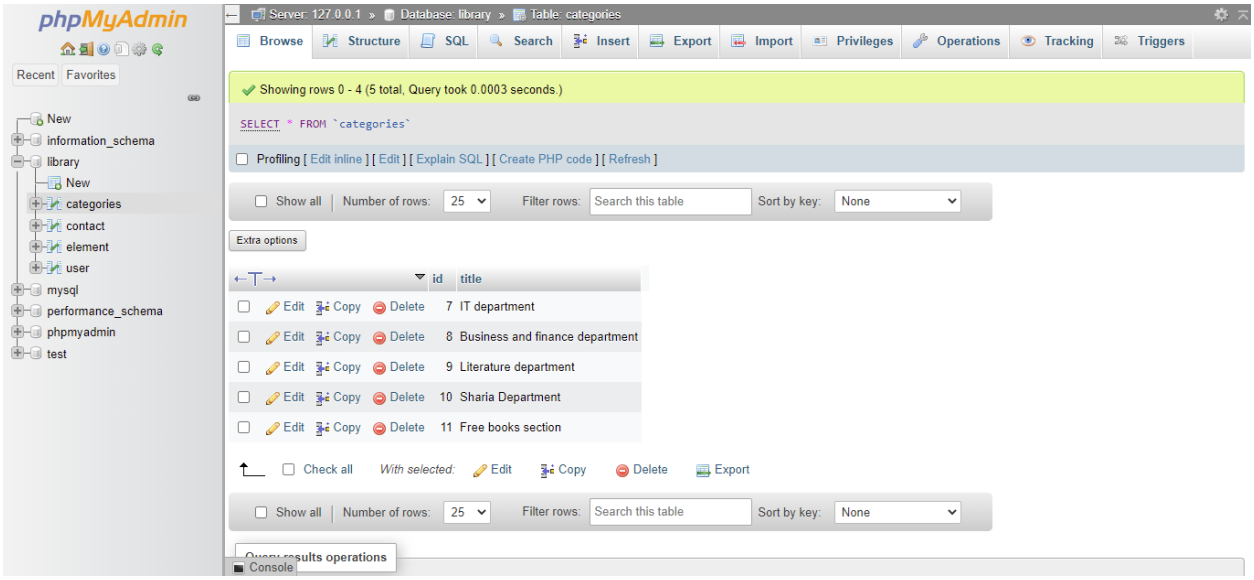

Figure 21: categories table

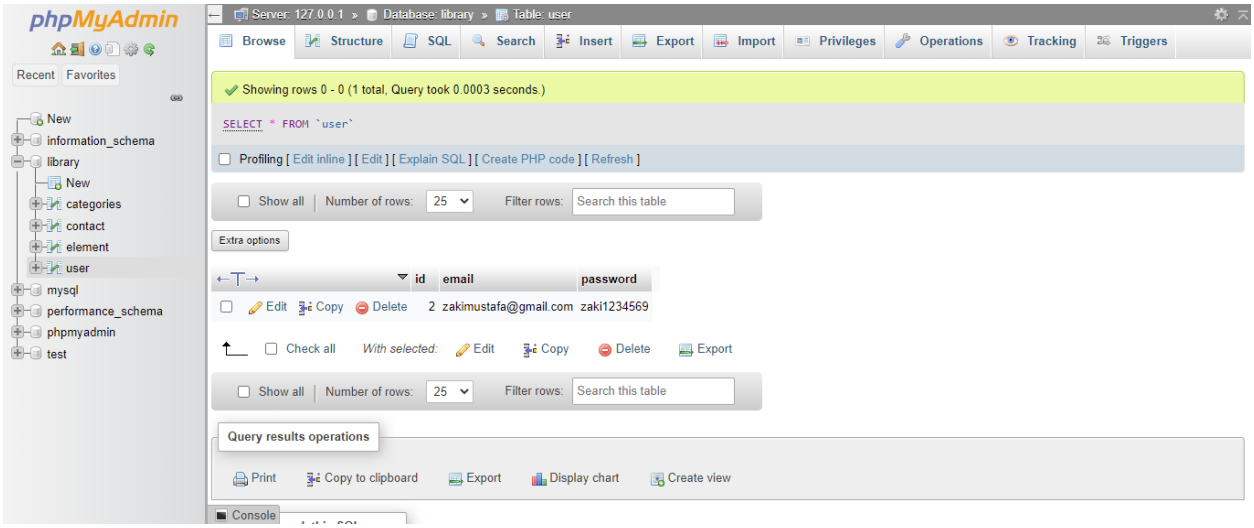

Figure 22: user table