Online Book Store: A Review Paper

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Abstract- This paper elucidates about the e-commerce with special reference to web bookstore. It explores the rapid increase in the use of buying books through the internet. The internet, very much, plays an important role in our lives. It has considerably improved the lifestyle of so many people. The web bookstore was in the process of developing for the benefits of their customers. But after the coronavirus pandemic hit, traditional bookshop began to move immediately to the web bookstore to avoid crowd. The online book shopping is a revolution of traditional book industry. Over the last few years, the e-commerce industry came to highlight. The web book system has facilitated the life of the countless book lovers by doing it feasible for them to buy books online. It is not always easy to access the traditional bookshop, such inconveniences have led to the development of e-commerce industries. Our project is one of the simplest e- commerce websites that host various books of multiple categories for a customer to buy online. In the online book sector, this paper also tries to create awareness on the utility of the online bookshop.

Keywords: E-commerce, web bookstore, traditional bookshop, feasible, inconveniences, website.

I.INTRODUCTION

In the good old days, bookshop was geographically located, and we have to go to traditional bookshop to purchase books. But now, the immense growth of the internet has emerged online book stores. Online web application has prompted the development of the e-business. It is straightforward internet feasible site which has varieties of books for a book lover customer to purchase book on the internet.

It has following positive impact:

- ☐ User friendly
- ☐ Cost saving
- ☐ Consume time and space
- ☐ Convenient
- ☐ **Multiple payment mode**
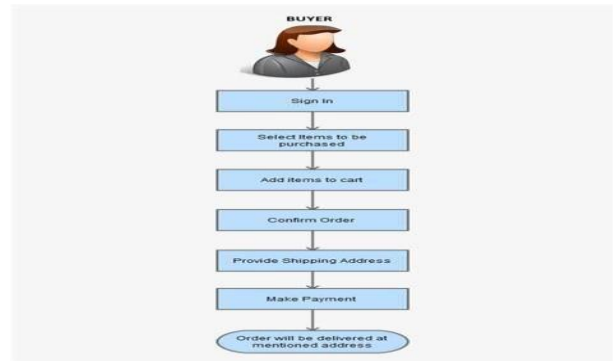
Buyer can connect through the Internet to the online bookshop and then can check the detailed information of the book.

If you want to buy, you should be registered:

and login using ID and password

then select the books as per requirement, confirm order by completing delivery address and payment process.

In this pandemic period customer does not need to blindly visit physical places to find their books. Instead, they can use web bookshop application which is easy and safe to use to avoid crowded places.

The books are divided into multiple categories based on subject like

- Science Fiction
- Historical fiction
- Cooking
- Health and Fitness
- Adventure

Religion, etc.

Purpose

Online Bookshop have following objectives:

➢ Multiple viewers at a time
➢ Convenient
➢ Quick and feasible site
➢ Easy to access
➢ Impulsive options

I. 2Technology

For implementation this website uses:

- Java
- JDBC
- HTTP Servlets
- HTML, CSS, Java script
- My SQL

II. RELATED WORK

Over the last few years, there has been an immense growth in the field of online bookstore system.

1. Sivasakthi (2015) found that use of technology provides multiple new opportunities and more easy-going well-being to the customers. Online shopping provides easy way to buy or shop and can consume time, price and helpful to access all information within a second.

2. Vanitha (2016) conducted a survey of 100 respondents and found that proper awareness and trust in the online shopping can be built by reducing the security concerns.

3. The online bookstore system eliminates the need for customers to go blindly to different locations to find their books, they only need to log into the online bookstore system with a computer connected to the internet [3].

4. Muthumani (2017) disclosed that the objective of online shopping is to provide products at right time, place and to right person and these three things should be given proper attention. He also resulted that most customer have positive attitude towards online shopping.

5. The development of online bookstores in China has gone through four stages: the embryonic stage, the development stage, the mature stage, and the prosperous stage [7].

6. Sivanesan (2017) disclosed that web- based shopping offers varieties of product and services to the customers. Online shopping facilitated the customers to compare the price quotes by various vendors and they choose the best one.

7. The research works like [8], [9] demonstrate a variety of state-of-the- art methods and techniques applied today. Recommendation systems use different kind of approaches to provide relevant recommendation.

8. Traditionally collaborative filtering and content-based filtering are used. The content-based filtering approach learns the content of the item i.e., product to categorize it to appropriate user based on his preferences learned from his profile. The collaborative filtering, in contrast, doesn't rely on content and matches items with users based on the idea that those users who

agreed in the past will also agree in the future.

9. The important information about their preferences can be collected upon ratings which customer give on the products. One of the successful implementations and use of collaborative filtering was done by Amazon company that recommends their wider selection range of products in a very efficient way.

10. The authors of [8], [9] use social-media information to learn the preferences of users in order to make right recommendations.

11. Chang et. al. [10] use such an information like interest fields, number of clicks to suggest appropriate book. In this paper we propose a book recommendation web service that using collaborative filtering provides users with recommendations on different genres based on the information of their preferences which they provide while making registration.

12. The advantage of this system is in its speed and simplicity. Most of the existing services need a profile history information and other information that need some time to provide users with recommendations while our aim was to generate recommendations for users in a very quick way.

13. The authors of [10], [11] use social- media information to learn the preferences of users in order to make right recommendations.

III. PROPOSED WORK

This internet-based web application aims to provide information about an organization to all levels of management. The bookshop may use this system as an information management system. We can clearly see that almost everything can be done with just one click, so this web application will help you to computerized management of your online bookstore so that customers can access it through the internet and search for the books they need. A customer visiting the website can view a large variety of books organized by category. When a customer searches for a particular book on the website, he or she can select desired book and view its price. Once the customer has selected the book, the results are displayed in a tabular form in the cart section, and the customer must fill out a form to order a book which contains information like delivery address, payment, etc.

All functions in a bookstore are automated by the Bookstore Management System. Generally, it includes the following operations:

☐ Order Processing
☐ Stock Management
☐ Accounts Management

The proposed system includes the following goals & the scope as follows:

Goals

☐ To make access simple to the customer.

☐ The primary objective of implementing new technology and streamlining the entire online shopping process was to increase sales volume.

☐ To make various books easily accessible during the pandemic situation since they are having issues with books that are not readily available.

☐ Crate a customer account, log in, and search the books to sort them by category.

☐ More appealing and extensive search with discounts and effective prices.

The admin will be able to do more things than a regular customer. He has the ability to modify the book categories, book details, member or customer information and confirm an order that has already been placed.

Scope

☐ To provide customer to buy books online.

☐ Reduce customer search time to offer substantial savings over purchasing.

☐ To provide user-friendly environment.

☐ To provide wider collection of various books.

☐ Manage every customer's account details

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such as customer name, contact number, address, email-ID.

IV.   E-R Diagram

An Entity Relationship diagram is a type of flowchart that shows relationships between entities and concepts within a system. The schema, which is specified by the ER data model, graphically depicts logical structure of the database.

Features of ER Model:

- In   database,   ER   models are represented by ER diagrams.

- No hardware support and require no technical knowledge.

- Easy to create and understand.

- It provides standardized solution of logically visualizing the data.

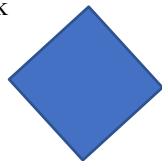- It is used to model real-world objects.

Components of ER Model

Entity

Attribute

Relationship among entities
Link

Entity

An entity can be a definable thing with a physical existence, like a certain person, car, house, worker or it can be a thing with a conceptual fact, like, business, job, or course. An entity, which stores data in the database, can be a place, person, object, event or concept.

- **Strong Key:** It always has a primary key. It is represented by a rectangle symbol. Primary key is represented by an underline symbol.

- **Weak Key:** It does not have any primary key. It is represented by a double rectangle symbol. Partial key is represented by the dashed underline symbol.

Entity Set

A collection of entities of same type is known as an entity set. It might include entities whose attributes have values that are similar.

Entity Keys

It refers to a property that identifies an entity within an entity set specifically.
Entity keys can be:

- **Primary Key:** A candidate key selected to identify entity set uniquely.

- **Candidate Key:** It is a minimal super key

- **Foreign Key:** It is used to Determine relationship between entities.

- **Super Key:** A set of attributes that define entity in the set.

Attributes

The characteristics of an entity type are defined by its attribute. For example: Name, DOB, Mobile No.
Attributes can be:

- **Simple Attribute:** The value which can't be further divided such as Roll number.

- **Composite Attribute:** The value is a composition of multiple attributes such as Address.

- **Derived Attribute:** The value derived from another value of the entity type such as Age is derived from the Date of Birth.

- **Multivalued Attribute:** The value that consists of more than one value for a given entity such as Mobile number.

Relationship

It represents the association or link between entity types.

Cardinality

Cardinality is the number of times an entity from an entity set participates in a relationship set.
Different types of cardinalities are:

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- **One-to-one:** When each entity in each entity set can participate in the relationship only once.

- **One-to-Many:** When entity in one entity set can participate only once in the relationship and entity in another set can participate more than once in the relationship set.

  Many-to-Many: When each entity in all entity set can participate in the relationship more than once.
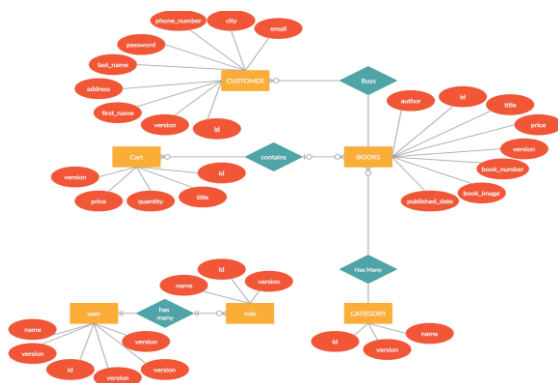
From the diagram, entities are:

➢ **Customer**

- Customer_ID

- Customer_first name

- Customer_last name

- Customer_address

- Customer_phone no

- Customer_email

➢ **Books**

- Books_ID

- Books_author

- Books_price

- Books_number

- Books_version

- Books_published date

- Books_image

➢ **Cart**

- Cart_ID

- Cart_title

- Cart_quantity

- Cart_price

➢ **Category**

- Category_ID

- Category_name

- Category_version

  Relationships are:

➢ Buys

➢ Contains

➢ Has Many

VI. CHALLENGES AND SOLUTIONS

➢ **Cyber security:** Security breaches are one of the main issues faced during online shopping. A lot of data is involved and a technical data problem can seriously harm it.

➢ **Solution:** Always be on the lookout and backup your data.

➢ **Online Identity Verification:** How would the retailer know if a customer is who they claim to be when they visit website? Are the details entered by the customer accurate?

  Solution: Verify OTP.

➢ **Price and Shipping:** customers prefer the places to buy which provide free shipping products.

  Solution: Always lookout options for customer base and provide them low shipping cost for a certain time period.

➢ **No physical interaction:** Customers cannot touch the books physically and blindly trust the seller to send proper book.

  Solution: If the service is considerable then no need for physical interaction.

➢ **Customer Loyalty:** Once a customer buys a book from one particular retailer then he or she will be the customer for the lifetime.

  Solution: Provide excellent customer services and let them know about the details of the product.

➢ **Customer Experiences:** The customer has high

expectations for product and services they pay for and are constantly looking for the better experiences. **Solution:** A thorough examination of current trends.

➢ **Damaged Product:** Book may be torn or may be not in proper condition. **Solution:** Maintain proper shipping mode.

➢ **Delay in delivery:** Sometimes, due to technical or traffic issues, delivery of the book may be delayed. **Solution:** Maintain time management quality.

➢ **Transaction issues:** Online transactions are always not safe. **Solution:** Make sure proper internet connectivity. Instead of debit, one should prefer credit card to make payment in order to avoid transaction fraud.

➢ **No bargaining:** Customer cannot bargain about the price of the product. **Solution:** Make affordable cost to avoid bargaining.

➢ **Sustainability:** Due to the increased global attention on sustainability as a result of customer demand, retailers are now being encouraged to market their product and delivery services as having a low environment impact. **Solution:** Improve the efficiency of supply chain.

➢ **Logistics:** Every year across the world, companies are affected by the supply chain.
Solution: Gain visibility of supply chain.

VII. CONCLUSION

Technology has had a big impact on the economy of the country over the years, and it will continue to do so in the years to come by giving customers better online shopping opportunities. Online bookshop is mainly different from the traditional bookshop. Reading is a general hobby of most of the customers. The design of the online bookstore system was made due to the completion time, and as a result, not only are information and books easily found and purchased, but the operating conditions are straightforward and user-friendly. Some of the system's functions are limited by these restrictions, but the fundamental ones have been accomplished.

It mainly varies from the traditional bookshop to overcome:

● Limited space

● Fixed location

● Limited variety

People have predicted that online shopping will eventually surpass in-store shopping due to the rapid growth of the numerous product and brands. However, the availability of web shopping has led to more informed customers who can compare prices with reluctance and little wasted time. At the end, the scenario has been advantageous for both customers and seller.

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