

**SYNOPSIS REPORT**  
**ON**  
**`ONLINE BOOKSTORE**  
***MASTER IN COMPUTER APPLICATION***  
***(BATCH 2023-2025)***

**UNDER**  
**BIJU PATNAIK UNIVERSITY OF TECHNOLOGY, ODISHA**  
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# 1. Abstract

The **Online Bookstore** is a web-based application designed to provide users with a seamless platform for browsing, searching, and purchasing books online. The system caters to both customers and administrators, ensuring a smooth shopping experience and efficient book management. Users can explore books across various genres, add them to their cart or wishlist, and complete purchases using secure online payment gateways. Additionally, features like book reviews, ratings, and personalized recommendations enhance user engagement.

The backend of the system ensures secure authentication, order processing, and database management, while the admin panel allows book inventory management, order tracking, and user control. The platform leverages modern web technologies such as **frontend, Python for backend, and MySQL for data storage** to provide a scalable and efficient solution.

## 2. Objectives

- Develop a user-friendly online bookstore with an intuitive interface.
- Implement a secure authentication system for users (customers and admins).
- Enable book search and filtering by categories, authors, and prices.
- Provide an efficient order and payment processing system.
- Allow users to review and rate books.
- Implement an admin panel for managing books, orders, and users.

## 3. Features

### User Module

- User Registration/Login
- Browse books by categories
- Search books by title, author, or genre
- Add books to cart and wishlist
- Purchase books via online payment
- View order history and track orders
- Submit book reviews and ratings

### Admin Module

- Manage book inventory (add, update, delete books)
- View and manage customer orders
- Handle user accounts
- Generate sales reports

## 4. Technology Stack

- **Frontend:** HTML, CSS, JavaScript

- **Backend:** Node.js/Java, Python (Django)
- **Database:** MySQL/PostgreSQL/MongoDB
- **Payment Gateway:** Stripe/PayPal

## 5. System Architecture

- **Client Side:** Users interact with the bookstore through a responsive web interface.
- **Server Side:** Handles authentication, book data management, and transaction processing.
- **Database:** Stores user details, book information, orders, and reviews.

## 6.Dataflow Digram:

A **Data Flow Diagram (DFD)** is a graphical representation of how data flows through a system, showcasing the processes, data stores, external entities, and data flow paths. It helps visualize how inputs are transformed into outputs through a sequence of processes.

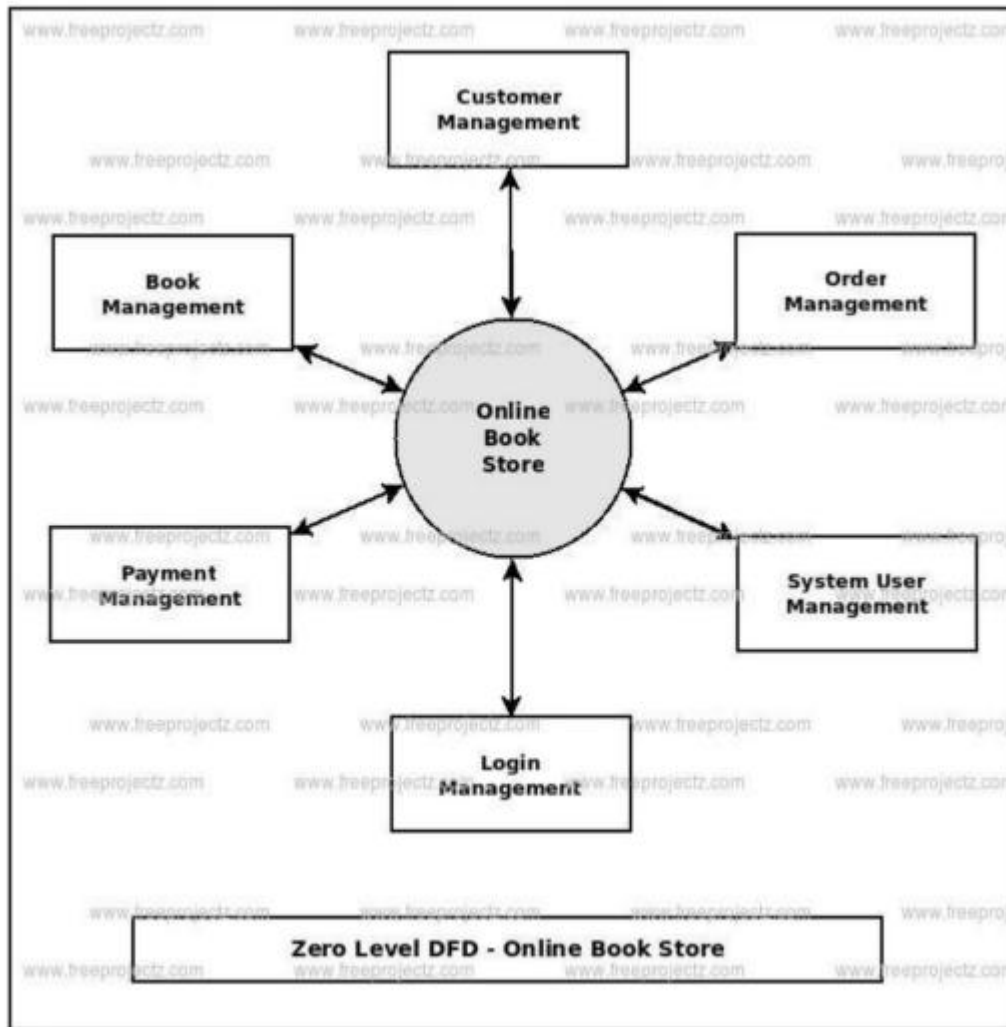
### Levels of DFD:

1. **Level 0 (Context Diagram):**
  - The highest-level DFD.
  - Represents the entire system as a single process and shows interactions with external entities.
  - Focuses on **input/output** relationships.
2. **Level 1:**
  - Breaks the single process in the context diagram into sub-processes.
  - Shows more detailed data flows and data stores.
3. **Level 2 and Beyond:**
  - Provide even more detailed breakdowns of the processes in Level 1.

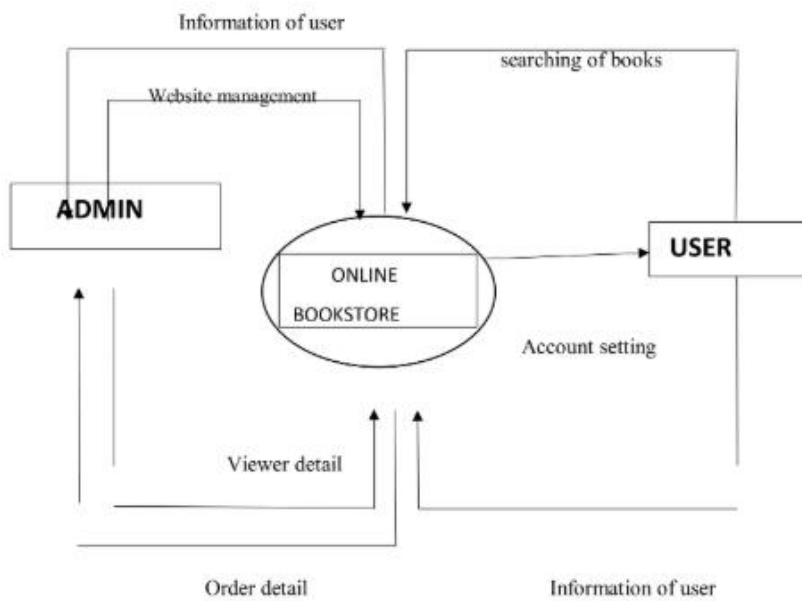
### Benefits of DFD:

- Simplifies complex processes.
- Provides a clear understanding of the system's functionality.
- Helps identify inefficiencies or redundancies.
- Useful for system design and documentation.

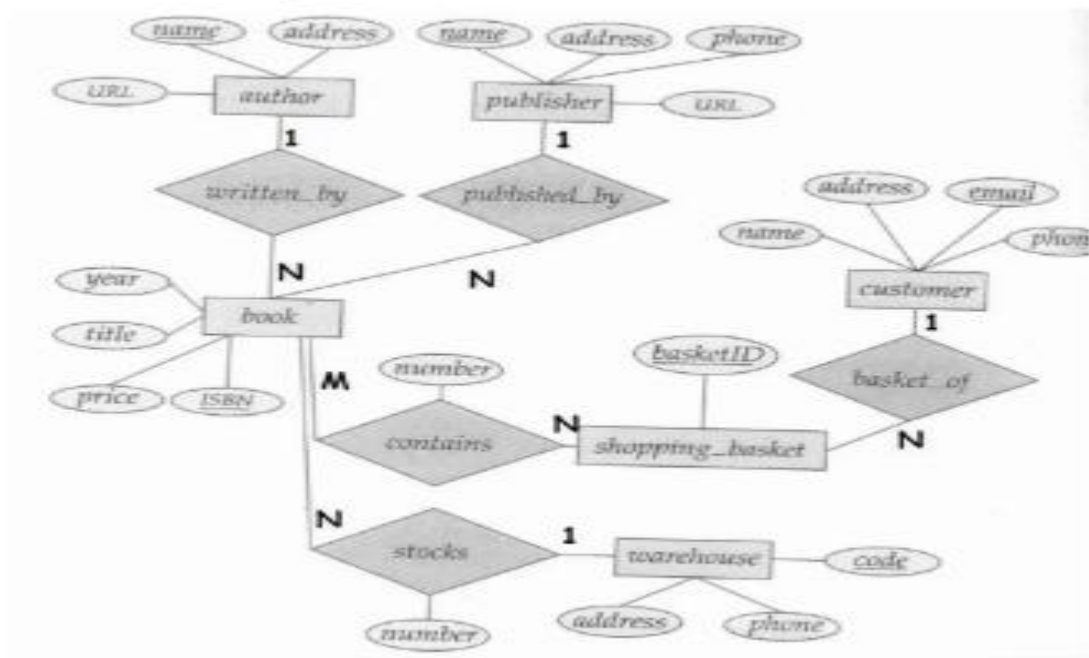
### 0 LEVEL DFD DIAGRAM:



**1LEVEL DFD DIAGRAM:**



## ER DIGRAM



## 7.Conclusion

The **Online Bookstore** project successfully provides a digital platform for purchasing books, offering users a convenient, secure, and efficient shopping experience. By integrating features like book search, reviews, ratings, and secure payment options, the system enhances user engagement and accessibility. The admin panel ensures smooth inventory management, order tracking, and user control, making it easier for bookstore owners to manage their business online.

## 8.Bibliography

### 1. Web Technologies & Development:

- Duckett, J. (2011). *HTML & CSS: Design and Build Websites*. Wiley.
- Flanagan, D. (2020). *JavaScript: The Definitive Guide*. O'Reilly Media.
- Freeman, E., & Robson, E. (2020). *Head First JavaScript Programming*. O'Reilly Media.

### 2. Backend Development & Databases:

- Grinberg, M. (2018). *Flask Web Development*. O'Reilly Media.
- Beighley, L., & Morrison, M. (2009). *Head First SQL*. O'Reilly Media.
- Chodorow, K. (2013). *MongoDB: The Definitive Guide*. O'Reilly Media.

### 3. E-commerce & Security:

- Laudon, K., & Traver, C. (2021). *E-commerce 2021: Business, Technology, Society*. Pearson.
- Stuttard, D., & Pinto, M. (2011). *The Web Application Hacker's Handbook: Finding and Exploiting Security Flaws*. Wiley.