# VISVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama", Belagavi-590 018



A Mini -Project Work on

# "BOOKSTORE MANAGEMENT SYSTEM"

A Dissertation work submitted in partial fulfillment of the requirement for the award of the degree

Bachelor of Engineering
In
Computer Science & Engineering

Submitted by

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Under the guidance of **Prof. T.SUJATHA**Assistant Professor



# DEPARTMENT OF INFORMATION SCIENCE & ENGINEERING ACHARYA INSTITUTE OF TECHNOLOGY

(AFFILIATED TO VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI.APPROVED BY AICTE, NEW DELHI, ACCREDITED BY NAAC, NEW DELHI)

Acharya Dr. Sarvepalli Radhakrishnan Road, Soldevanahalli, Bengaluru-560107

2021-22

# **DEPARTMENT OF INFORMATION SCIENCE & ENGINEERING**ACHARYA INSTITUTE OF TECHNOLOGY

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# Certificate

This is to Certify that the Mini-Project work entitled "BOOKSTORE MANAGEMENT SYSTEM" is a Bonafede work carried out by PRATHAM DANGOL(1AY18CS081) and KUSHAGRA MEMANI(1AY18CS059) in partial fulfillment for the award of the degree of Bachelor of Engineering in Computer Science and Engineering of the Visvesvaraya Technological University, Belagavi during the year 2021-22. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The Project has been approved as it satisfies the academic requirements in respect of Project work prescribed for the Bachelor of Engineering Degree.

Signature of Guide	Signature of HOD
Name of the Examiners	Signature with date
1	
2.	

# **ABSTRACT**

Books plays a quite essential role in every student's life by introducing them to a world of imagination, providing knowledge of the outside world, improving their reading, writing and speaking skills as well as boosting memory and intelligence. Whether the books be of fictional stories or skillset for engineering, each has its own importance.

So, for students and other people to be able to find their desired books, we have made a bookstore library management system where we have listed 100+ books for our audience to discover. We have particularly distinguished each book according to the genre and type of the book. They can also order the books

The goal of this master's project is to design an online bookstore named Bookstore.com that mainly sells computer and technical books. The book inventories are stored in Oracle database in UB. Customers can access the bookstore web site through the World Wide Web. Customers will be able to search the database to find the books they want, check the availability, and place the order to buy the book using their credit cards.

# ACKNOWLEDGEMENT

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# INTRODUCTION

#### 1.1 INTRODUCTION TO DATABASE MANAGEMENT SYSTEM

Database: Database is a collection of inter-related data which helps in efficient retrieval, insertion and deletion of data from database and organizes the data in the form of tables, views, schemas, reports etc. For Example, university database organizes the data about students, faculty, and admin staff etc. which helps in efficient retrieval, insertion and deletion of data from it. **DDL** is short name of Data Definition Language, which deals with database schemas and descriptions, of how the data should reside in the database. ☐ CREATE: to create a database and its objects like (table, index, views, store procedure, function, and triggers) ☐ ALTER: alters the structure of the existing database ☐ DROP: delete objects from the database ☐ TRUNCATE: remove all records from a table, including all spaces allocated for the records are removed ☐ COMMENT: add comments to the data dictionary ☐ RENAME: rename an object **DML** is short name of Data Manipulation Language which deals with data manipulation and includes most common SQL statements such SELECT, INSERT, UPDATE, DELETE, etc., and it is used to store, modify, retrieve, delete and update data in a database. ☐ SELECT: retrieve data from a database ☐ INSERT: insert data into a table ☐ UPDATE: updates existing data within a table ☐ DELETE: Delete all records from a database table ☐ MERGE: UPSERT operation (insert or update) ☐ CALL: call a PL/SQL or Java subprogram ☐ EXPLAIN PLAN: interpretation of the data access path ☐ LOCK TABLE: concurrency Control

**Database Management System:** The software which is used to manage database is called Database Management System (DBMS). For Example, MySQL, Oracle etc. are popular commercial DBMS used in different applications. DBMS allows users the following tasks:

**Data Definition:** It helps in creation, modification and removal of definitions that define the organization of data in database.

**Data Updation:** It helps in insertion, modification and deletion of the actual data in the database. **Data Retrieval:** It helps in retrieval of data from the database which can be used by applications for various purposes.

**User Administration:** It helps in registering and monitoring users, enforcing data security, monitoring performance, maintaining data integrity, dealing with concurrency control and recovering information corrupted by unexpected failure.

#### Paradigm Shift from File System to DBMS

File System manages data using files in hard disk. Users are allowed to create, delete, and update the files according to their requirement. Let us consider the example of file based University Management System. Data of students is available to their respective Departments, Academics Section, Result Section, Accounts Section, Hostel Office etc. Some of the data is common for all sections like Roll No, Name, Father Name, Address and Phone number of students but some data is available to a particular section only like Hostel allotment number which is a part of hostel office. Let us discuss the issues with this system:

- Redundancy of data: Data is said to be redundant if same data is copied at many places. If
  a student wants to change Phone number, he has to get it updated at various sections.
   Similarly, old records must be deleted from all sections representing that student.
- Inconsistency of Data: Data is said to be inconsistent if multiple copies of same data does not match with each other. If Phone number is different in Accounts Section and Academics Section, it will be inconsistent. Inconsistency may be because of typing errors or not updating all copies of same data.
- **Difficult Data Access:** A user should know the exact location of file to access data, so the process is very cumbersome and tedious. If user wants to search student hostel allotment number of a student from 10000 unsorted students' records, how difficult it can be.
- Unauthorized Access: File System may lead to unauthorized access to data. If a student gets access to file having his marks, he can change it in unauthorized way.

- No Concurrent Access: The access of same data by multiple users at same time is known
  as concurrency. File system does not allow concurrency as data can be accessed by only
  one user at a time.
- **No Backup and Recovery:** File system does not incorporate any backup and recovery of data if a file is lost or corrupted.

## 1.2 About Mini Project

The Bookshop Automation System is to automate all operations in a bookshop. Generally, it includes the Order Processing, Stock Management and Accounts Management.

Before automating a bookshop, we have to understand the concept of automation. In automation of any operation we make a system which do work automatically as the respective events occurs, for which it is meant.

There are some common examples of the automation like that auto pilot system in the aircraft, automatic home systems (electric system, water system, fire alarm system, doors system etc). These are best examples of the automation systems.

Here we are trying to develop such type system which is provide the automation on the any type of the bookshop. That means a shop which has the type system which provides the facility to the customers of the shop to purchase the books from the shop without any complexity.

For example, any customer wants to purchase any book from the shop than first of all customer just choose the stream of the book than he/she can see the more than one type of books there and then he/she can choose the specific book from there. And then purchase it by paying price on bookshop cash counter and receives its invoice.

# SYSTEM REQUIREMENTS

### 2.1 Functional Requirements

The specific functional requirements of the Social Networks Database Management are stated as follows:

- ➤ New User Registration: The system should allow a new user to register by giving the required details.
- ➤ User Login: The system should allow to a existing user to login using the correct password to access the library.
- Admin Login: The admin can login to his/her account and view the details of the books and also the users.
- Automatic update to database once a new user registers. Also, if a user issues a book, it gets automatically updated to the database.

# 2.2 Non-Functional Requirements

#### **2.2.1** Performance Requirements:

Performance of the system should be fast and accurate. The system shall handle expected and unexpected errors. Should be able to handle large amount of data.

#### **2.2.2** Safety Requirements:

Must be two servers, one main server and one backup server.

#### **2.2.3** Security Requirements:

User authentication and validation of members using their password. Proper accountability which includes not allowing a member to see othermember's account. Only admin will see and manage all user's account. Proper user authentication should be provided.

#### 2.2.4 Hardware Requirement

The section of hardware configuration is an important task related to the software development insufficient random-access memory may affect adversely on the speed and efficiency of the entire system. The process should be powerful to handle the entire operations. The hard disk should have sufficient capacity to store the file and application

Processor : Intel® Core i3 11<sup>th</sup> Gen CPU @ 2.30 GHZ

RAM : 8.00 GB

Hard disk : Minimum 40 GB ROM capacity

System type: 64-bit Operating System, x64-based processor

### 2.2.5 Software Requirement

A major element in building a system is the section of compatible software since the software in the market is experiencing in geometric progression. Selected software should be acceptable by the firm and one user as well as it should be feasible for the system.

This document gives a detailed description of the software requirement specification. The study of requirement specification is focused specially on the functioning of the system. It allows the developer or analyst to understand the system, function to be carried out the performance level to be obtained and corresponding interfaces to be established.

Front End : PHP (Hypertext preprocessor)

Back End : WAMPP server, MySQL

Operation System : Windows 10

Client side : CSS (cascading Style sheet)

## 2.3 Software Requirement Specification

• HTML is integrated in PHP. It provides a means to structure text-based information in a document. It allows users to produce web pages that include text, graphics and hyperlinks. Web browsers receive HTML documents from a web server or from local storage and render the documents into multimedia web pages. HTML describes the structure of a web page semantically and originally included cues for the appearance of the document.HTML elements are the building blocks.

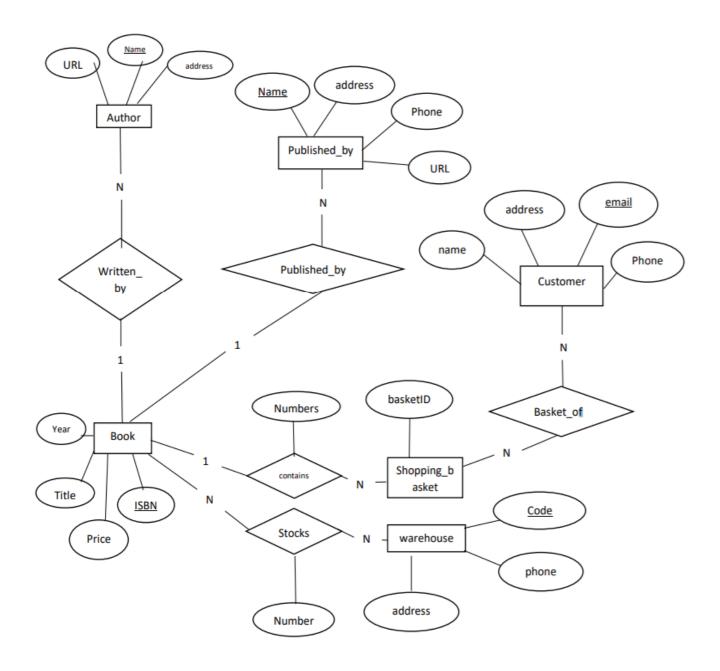
- CSS (Cascading Style Sheets) is a style sheet language used for describing the presentation of a document written in a mark-up language. Although most often used to set the visual style of web pages and user interfaces written in HTML and XHTML, the language can be applied to any XML document.
- MYSQL is the language used to manipulate relational databases. It is tied closely with the relational model. It is issued for the purpose of data definition and data manipulation. Program runs as a server providing multi-user access to a number ofdatabases. MySQL is a multithreaded, multi-user SQL database management system (DBMS). It includes facilities to add, modify or delete data from the database, ask questions (or queries) about the data stored in the database and produce reports summarizing selected contents.
- PHP is a scripting language originally designed for producing dynamic webpages. It has evolved to include a command line interface capability and can be used in standalone graphical applications. PHP is a generalpurpose scripting language that is especially suited for web development. PHP generally runs on a web server, taking PHP code as its input and creating web pages as output. It can also be used for command-line scripting and client-side GUI applications. PHPcan be deployed on most web servers, many operating systems and platforms, and can be used with many relational database management systems. It is available free of charge, and the PHP Group provides the complete source code for users to build, customize and extend for their own use.PHP stores whole numbers in a platform-dependent range. It requires MySQL connection between the front end and back-end components to write to the database and fetch required data. PHP code is usually processed on a web server by a PHP interpreter implemented as a module, a daemon or as a Common Gateway Interface (CGI) executable. On aweb server, the result of the interpreted and executed PHP code which may be anytype of data, such as generated HTML or binary image data would form the wholeor part of an HTTP response. Various web template systems, web content management

systems, and web frameworks exist which can be employed to orchestrate or facilitate the generation of that response. Additionally, PHP can be used for many programming tasks outside of the web context, such as standalone graphical applications and robotic drone control It is available free of charge, and the PHP Group provides the complete source code for users to build, customize.

# **SYSTEM DESIGN**

# 3.1 ER Diagram

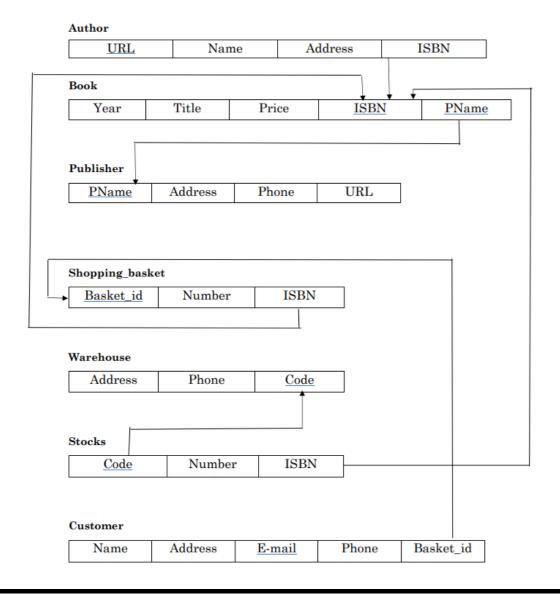
An entity–relationship model is typically implemented as a database. In a simple relational database implementation, each row of a table represents one instance of an entity type, and each field in a table represents an attribute type.



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# 3.2 Schema Diagram

The term "schema" refers to the organization of data as a blueprint of how the database is constructed (divided into database tables in the case of relational databases). The formal definition of a database schema is a set of formulas (sentences) called integrity constraints imposed on a database. A relational schema shows references among fields in the database. When a primary key is referenced in another table in the database, it is called a foreign key. This is denoted by an arrow with the head pointing at the referenced key attribute. A schema diagram helps organize values in the database. It also gives an idea of what order the tables should be created in. The following diagram shows the schema diagram for the database.



#### SYSTEM IMPLEMENTATION

## **4.1 Creation of Tables**

#### **4.1.1 BOOKS**

```
CREATE TABLE IF NOT EXISTS `book` (
       `b id` int(4) NOT NULL AUTO INCREMENT,
       `b nm` varchar(60) NOT NULL,
       `b subcat` varchar(25) NOT NULL,
32
       `b desc` longtext NOT NULL,
       `b publisher` varchar(40) NOT NULL,
       `b edition` varchar(20) NOT NULL,
       `b isbn` varchar(10) NOT NULL,
       `b_page` int(5) NOT NULL,
       `b price` int(5) NOT NULL,
       `b img` longtext NOT NULL,
       `b pdf` longtext NOT NULL,
       PRIMARY KEY (`b id`)
41
42
     ) ENGINE=MyISAM DEFAULT CHARSET=latin1 AUTO INCREMENT=51;
```

## **4.1.2 CONTACT**

```
CREATE TABLE IF NOT EXISTS `contact` (

'con_id` int(4) NOT NULL AUTO_INCREMENT,

'con_nm` varchar(25) NOT NULL,

'con_email` varchar(35) NOT NULL,

'con_query` longtext NOT NULL,

PRIMARY KEY (`con_id`)

BNGINE=MyISAM DEFAULT CHARSET=latin1 AUTO_INCREMENT=5;

152
```

#### 4.1.3 SHIPPING DETAILS

```
CREATE TABLE IF NOT EXISTS `shipping details` (
170
        `id` int(11) NOT NULL AUTO INCREMENT,
171
        `name` char(50) NOT NULL,
172
        `address` text NOT NULL,
        `postal code` bigint(20) NOT NULL,
173
174
        `city` varchar(50) NOT NULL,
175
       `state` varchar(50) NOT NULL,
       `phone` bigint(20) NOT NULL,
176
       `f id` varchar(50) NOT NULL,
       PRIMARY KEY (`id`)
178
179
      ) ENGINE=InnoDB DEFAULT CHARSET=latin1 AUTO INCREMENT=3;
180
```

#### 4.1.4 CATEGORY

```
CREATE TABLE IF NOT EXISTS `category` (
   `cat_id` int(4) NOT NULL AUTO_INCREMENT,
   `cat_nm` varchar(30) NOT NULL,
   PRIMARY KEY (`cat_id`)
) ENGINE=MyISAM DEFAULT CHARSET=latin1 AUTO_INCREMENT=22;
```

#### 4.1.5 SUB-CATEGORY

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#### **4.1.6 USER**

```
247
        `u id` int(4) NOT NULL AUTO INCREMENT,
        `u fnm` varchar(35) NOT NULL,
        `u_unm` varchar(25) NOT NULL,
250
        `u_pwd` varchar(20) NOT NULL,
251
252
        `u gender` varchar(7) NOT NULL,
        `u_email` varchar(35) NOT NULL,
253
254
       `u contact` varchar(12) NOT NULL,
        `u_city` varchar(20) NOT NULL,
255
256
      ) ENGINE=MyISAM DEFAULT CHARSET=latin1 AUTO INCREMENT=7;
257
258
```

## **4.2 INSERTION OF VALUES**

#### 4.2.1 BOOK

```
DECEMBER 1990 (1) South 1990 (1) States, 'b gase,' 's publisher,' 's gettion,' 's just,' 'buyer,' 'buy
```

#### **4.2.2 CONTACT**

```
INSERT INTO `contact` (`con_id`, `con_nm`, `con_email`, `con_query`) VALUES
(1, 'Hiren', 'hiru@gmail.com', 'English Novels...'),
(2, 'Shital', 'shital@yahoo.com', 'Are you send me medical books?'),
(3, 'Manali', 'manali@yahoo.com', 'Java Complete Reference is available?'),
(4, 'Rina', 'rina@gmail.com', 'Artificial Intelligence');
```

#### 4.2.3 SHIPPING DETAILS

```
INSERT INTO `shipping_details` (`id`, `name`, `address`, `postal_code`, `city`, `state`, `phone`, `f_id`) VALUES
(1, 'sanjeev kumar', ' 141 delhi', 110009, 'delhi', 'delhi', 9015501897, 'sanjeev'),
(2, 'sanjeev kumar', ' 141 delhi', 110009, 'delhi', 'delhi', 9015501897, 'sanjeev');
```

#### 4.2.4 CATEGORY

```
(3, 'Forest'),
(4, 'Sports'),
(5, 'Astrology'),
(6, 'Business'),
(7, 'Economics'),
(8, 'Low Books'),
(9, 'Tourism'),
(10, 'Yearl')
(9, 'Tourism'),
(10, 'Yoga'),
(11, 'Religion'),
(12, 'Management'),
(13, 'Terrorism'),
(14, 'Tracking'),
(15, 'Fiction'),
(16, 'Comics'),
(17, 'Computer'),
(18, 'Cooking'),
(19, 'Science')
   (19, 'Science'),
(20, 'Compititive Exam'),
```

#### 4.2.5 SUB-CATEGORY

```
INSERT INTO `subcat` (`subcat_id`, `parent_id`, `subcat_nm`) VALUES
(1, 1, 'Architecture'),
(2, 2, 'Art And Culture'),
(3, 3, 'Forest'),
(4, 4, 'Sports'),
(5, 5, 'Astrology'),
(6, 6, 'Business'),
(7, 7, 'Economics'),
(8, 8, 'Low Books'),
(9, 9, 'Tourism'),
(10, 10, 'Yoga'),
(11, 11, 'Religion'),
(12, 12, 'Management'),
(13, 13, 'Terrorism'),
(14, 14, 'Tracking'),
(15, 15, 'Fiction'),
(16, 16, 'Comics'),
(17, 17, 'Programming'),
(18, 17, 'Database'),
(19, 17, 'Web-Design'),
(20, 17, 'Networking'),
(22, 18, 'Pasta'),
(23, 18, 'Tea - Coffee'),
(24, 18, 'Soup - Sauce'),
(25, 18, 'Vegetarian Item'),
(26, 19, 'Physics'),
(27, 19, 'Biology'),
(28, 19, 'Medical'),
(29, 17, 'O.S.'),
(33, 20, 'CAT'),
(31, 20, 'GMAT'),
(31, 20, 'GMAT'),
(32, 20, 'MBA'),
      (31, 20, 'GMAT'),
(32, 20, 'MBA'),
(34, 20, 'BBA'),
```

#### **4.2.6 USER**

```
INSERT INTO `user` (`u_id`, `u_fnm`, `u_unm`, `u_pwd`, `u_gender`, `u_email`, `u_contact`, `u_city`) VALUES
(1, 'Hiren Bhaliya', 'Hiren', 'hiru', 'Male', 'hiru@gmail.com', '9925136522', 'Rajkot'),
(2, 'Shital', 'shital', 'shital', 'Female', 'shital@yahoo.com', '9985689856', 'Rajkot'),
(3, 'Lina', 'Lina123', '123', 'Female', 'lina123@gmail.com', '9456325663', 'Amreli'),
(4, 'admin', 'admin', 'admin123', 'Female', 'admin@gmail.com', '9859632561', 'Rajkot'),
(5, 'Kaushik', 'Darcy', '160160160', 'Male', 'darcy@gmail.com', '9016388880', 'Rajkot'),
(6, 'sanjeev', 'kumar', 'sanjeev', 'Male', 'sanjeevtech2@gmail.com', '9015501897', 'Ahmedabad');
```

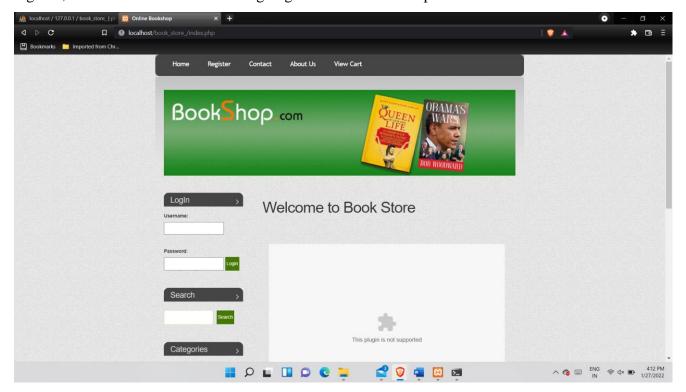
#### 4.3 TRIGGERS

CREATE TRIGGER 'user\_logs' BEFORE DELETION ON 'login' FOR EACH ROW insert into logs VALUES (OLD.id, OLD.name, OLD.number, OLD.email, OLD.password, OLD.user)

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#### RESULTS AND DISCUSSION

The following picture is of the front page of our Bookshop website. Here the user can login using his/her username and password. There is also an option to search their wished book through our database. There are different options to click on the top of our page, for example, register, contact which we are further going to discuss on this topic.



**FIG: LOGIN PAGE** 

Also, on the front page we have a complete list regarding all the categories of books that we have installed in our database. From here the user can choose which genre or category of book he/she want to read.

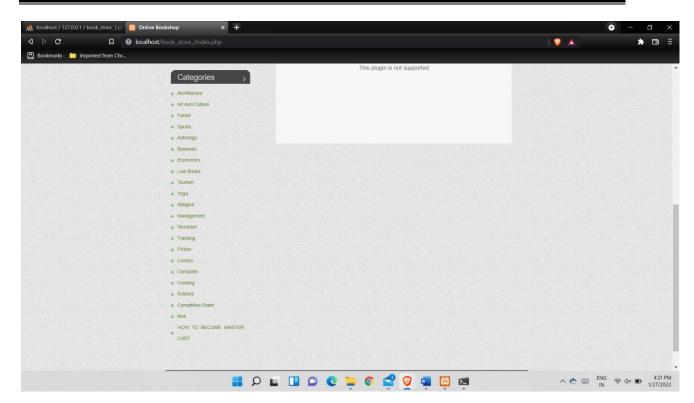


FIG: INDEX PAGE

The following picture is of the registration page which can be navigated by clicking on the register option on the top of the page. Here the users who have not been registered in our website can register by signing up putting their details as shown in the picture below

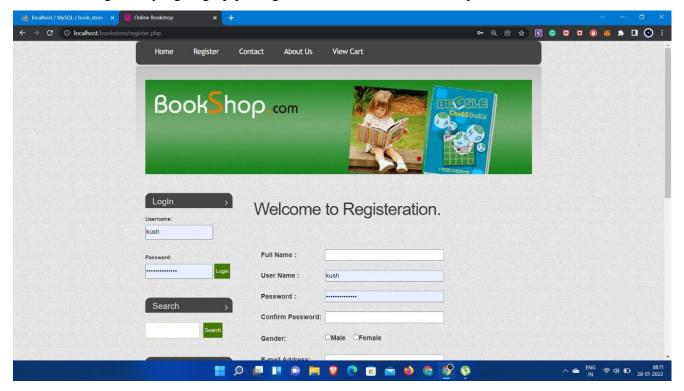


FIG: REGISTRATION PAGE

The following picture is regarding the contact page where the user can contact us by writing their name, email id and their query.

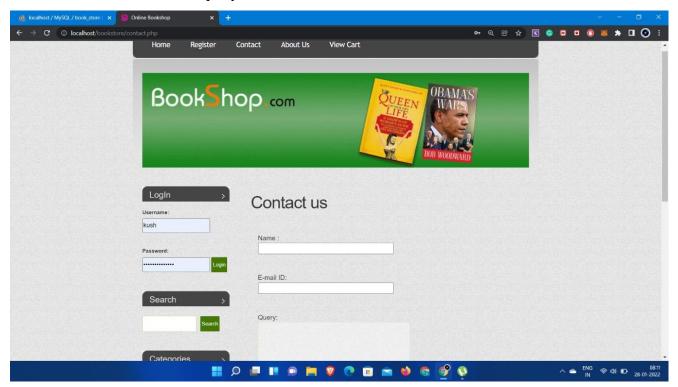


FIG: CONTACT PAGE

The following picture is regarding the page about us which shows our name as the creators of the website. We have also added our phone number in case the user wants to connect to us.

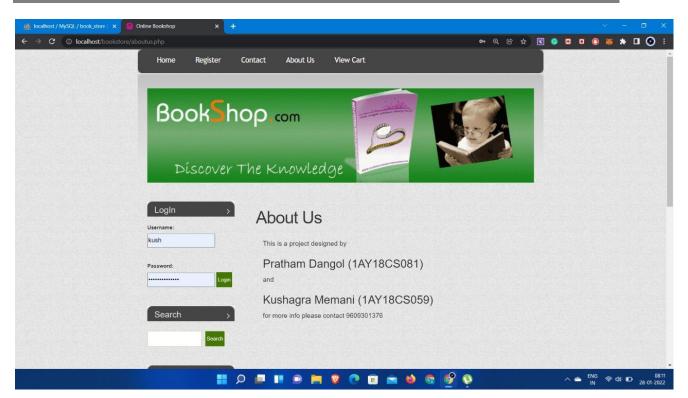


FIG: ABOUT US PAGE

The following picture is the cart where the books added by the user to buy are shown. Here in a systematic way the user can see the total no. of books that he/she is going to order. Also the total cost of the books is also shown. From this page, the user can order the books by paying through card or online.



FIG: VIEWCART

# **CONCLUSIONS**

#### BOOK STORE MANAGEMENT SYSTEM PROJECT

This Bookshop Automation System is an attempt to overcome the present inefficient and time consuming process of locating, reserving and purchasing quality reading materials available in

the store. Currently, clients have to go through a time-consuming process to perform aforementioned tasks which cause waste of labor and firms' resources. Through our automated

book store solution, we provide an easy way of searching, reserving and purchasing of books. User data are validated and checked for authenticity with the data stored in the system database.

All the newly coined processes will address time consuming, ineffective and inefficient areas of

the existing system which has been wasting a lot of firm's resources such as, labor, electricity,

equipment, products and services, while discouraging customers to make purchases and repelling

clients from the book store.

Proposed system will support both clients and the store in many areas. It's worth analyzing and

identifying the benefits as it would directly influence the productivity of the store.

Customer satisfaction plays the most vital role in any form of product and service rendering store

as the existence of any firm solely depends on its customer-base. Therefore, every system should

facilitate the customer satisfaction up to a certain extent which is feasible from the company perspective.

The aforementioned facts ensure customer satisfaction to a greater extent benefiting the store in:

Retaining current customers

Tempting current customers to attract their friends to the store Attracting new customers Enhancing the customer faith on the firm due to secure transaction techniques while temping customers to make more online purchases

Identifying profitable customers Identifying different categories of customers

Making necessary alterations and plans to address broader range of customers Identifying key areas of the inventory which need to be maintained at a healthy stock

limit Analyzing trends to make more effective management decisions and development of new strategies to increase profit

These particulars will make sure the broadening the customer base of the store which will have

good impact on the sales and revenue of the store.

Employee satisfaction also plays an influential role in healthy revenue levels of a firm. Due to the proposed system, employees will have to handle minimum amount of workload than that of

the existing system which will help the employees to provide optimal service to the firm while

maintaining healthy physical and mental levels.

Proposed system will reduce transaction and agency cost of the store up to a certain extent since

the transactions are automated and need of minimal labor to handle work as their work has been governed by the system.

Even though these advantages prevail, due to lack of IT literacy and fluency of clients and lack

of distribution of internet facility will have a negative impact and it will take some time to cover

up the capital investment made on implementing the new system. Since the technical facilities

are expanding in great heaps, proposed system will facilitate enhancing productivity immensely.

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