

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

“Jnana Sangama”, Belagavi–590 018



A

Mini Project Report

on

**“Online Bookstore Management System”**

Submitted in partial fulfilment of the requirement for the DBMS Laboratory with mini project(18CSL58) of V Semester Bachelor of Engineering in Computer Science and Engineering.

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Department of Computer Science and Engineering

**GLOBAL ACADEMY OF TECHNOLOGY**

Rajarajeshwarinagar, Bengaluru – 560 098

2021-2022



# GLOBAL ACADEMY OF TECHNOLOGY

Department of Computer Science and Engineering

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Rajarajeshwarinagar, Bengaluru – 560 098



## CERTIFICATE

Certified that the V Semester Mini Project in DBMS Laboratory Entitled “**Online Bookstore Management System**” carried out by **Ms. VAISHNAVI D H AND Ms. SATHYALAKSHMI S**, bearing **USN 1GA19CS173 AND 1GA19CS194** is submitted in partial fulfilment for the award of the **BACHELOR OF ENGINEERING in Computer Science and Engineering from Visvesvaraya Technological University, Belagavi** during the year **2021-2022**. The DBMS Mini Project report has been approved as it satisfies the academic requirements in respect of the mini-project work prescribed for the said Degree.

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Signature with date

\_\_\_\_\_

\_\_\_\_\_



# GLOBAL ACADEMY OF TECHNOLOGY

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## DECLARATION

We, **VAISHNAVI D H** and **SATHYALAKSHMI S** bearing **USN 1GA19CS173** and **1GA19CS194**, students of Fifth Semester B.E, Department of Computer Science and Engineering, **Global Academy of Technology**, Rajarajeshwarinagar Bengaluru, declare that the Mini Project entitled “**Online Bookstore Management System**” has been carried out by us and submitted in partial fulfilment of the course requirements for the award of degree in Bachelor of Engineering in Computer Science and Engineering from **Visvesvaraya Technological University, Belagavi** during the academic year 2021-2022.

**VAISHNAVI D H [1GA19CS173]**

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Place: Bengaluru

Date:

# **ABSTRACT**

An Online Bookstore is a website where all the VTU prescribed textbooks for Computer Science Department starting from third semester up to eighth semesters are available. The customer can buy one or more books by selecting the book and filling in the details for delivery of the book. Students don't have to go searching for textbooks from one store to another as we have attempted to have all the books of VTU on our website. The books are divided into various categories like the publisher category and also the semester category. In the semester category, the books are divided based on the semesters so as to make it easier for the students to locate the books they need. It's usually difficult to find VTU textbooks on time in bookstores, an online bookstore will definitely make it easier for students to find computer science textbooks for all semesters from third semester to eighth semester. The textbooks in the bookstore are also categorized based on publishers, hence finding the textbook through the publisher is also made available. The admin can login using correct Username and Password and then make any edits related to the database. The admin can delete a book, add a new book and also update the details of any existing book. The website can have more than one admin who can make any changes to the website. The user is not required to sign up or create an account to browse through the website, he or she can just look through books and also details of all the books just by entering into the website as a guest. Initially, when a user tries to access the website, by default he or she is in the guest mode. He or she can scroll through the books or also search for any book based on their interest, they are given an option of browsing through the store by also selecting one out of the two categories available that is semester categories or the publisher. After the user selects the books and fills in the details for delivery of the book or books, a delivery charge of rupees 20 is added to the total cost.

# ACKNOWLEDGEMENT

The satisfaction and euphoria that accompany the successful completion of any task would be incomplete without the mention of the people who made it possible and whose constant encouragement and guidance crowned our efforts with success.

I consider myself proud, to be part of **Global Academy of Technology** family, the institution which stood by the way in endeavours.

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I wish to thank my internal guide **Prof. Snigdha Sen**, Dept of CSE for guiding and correcting various documents of mine with attention and care. She has taken lot of pain to go through the document and make necessary corrections as and when needed.

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**VAISHNAVI D H (1GA19CS173)**

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# CHAPTER 1

## INTRODUCTION

### 1.1 INTRODUCTION TO SQL

Structure Query Language (SQL) is a database query language used for storing and managing data in Relational DBMS. SQL was the first commercial language introduced for E.F Codd's **Relational** model of database. Today almost all DBMS (MySQL, Oracle, Informix, Sybase, MS Access) use **SQL** as the standard database query language. SQL is used to perform all types of data operations in DBMS.

#### SQL IS LIKE ENGLISH

At this point, you might be thinking that you're not a programmer and learning a programming language is certainly not up your alley. Fortunately, at its core, SQL is a simple language. It has a limited number of commands, and those commands are very readable and are almost structured like English sentences.

#### INTRODUCING DATABASES

To understand SQL, it's important to have a basic understanding of how databases work. If you're comfortable with terms like table, relation and query, feel free to flow right ahead! If not, you may wish to read the article Database Fundamentals before moving on.

Let's look at an example. Suppose you have a simple database designed to keep the inventory for a convenience store. One of the tables in your database might contain the prices of the items on your shelves indexed by unique stock numbers that identify each item.

You'd probably give that table a simple name like "Prices."

Perhaps you want to remove items from your store that are priced over \$25, you would "query" the database for a list of all these items. This is where SQL comes in.



## **YOUR FIRST SQL QUERY**

Before we get into the SQL statement required to retrieve this information, let's try phrasing our question in plain English.

We want to "select all stock numbers from the prices table where the price is over \$25." That's a simple request when expressed in plain English, and it's almost as simple in SQL. Here's the corresponding SQL statement:

```
SELECT StockNumber
```

```
FROM Prices
```

```
WHERE Price > 5
```

It's as simple as that! If you read the statement above out loud, you'll find that it's extremely like the English question we posed in the last paragraph.

## **INTERPRETING SQL STATEMENTS**

Now let's try another example. This time, however, we'll do it backwards. First, I'll provide you with the SQL statement and let's see if you can explain it in plain English:

```
SELECT Price
```

```
FROM Prices
```

```
WHERE StockNumber = 3006
```

So, what do you think this statement does?

That's right, it retrieves the price from the database for item 3006.

There's one simple lesson you should take away from our discussion at this point: SQL is like English. Don't worry about how you construct SQL statements; we'll get to that in the rest of our series. Just realize that SQL isn't as intimidating as it may first appear.

## **THE RANGE OF SQL STATEMENTS**

SQL provides a wide range of statements, of which SELECT is just one. Here are some examples of other common SQL statements:

SQL INSERT and SQL DELETE: Inserts or deletes a record from a table

SQL UPDATE: Modifies records in a table

SQL CREATE and SQL DROP: Creates or deletes a table

In addition to these SQL statements, you can use SQL clauses, among them the WHERE clause used in the previous examples. These clauses serve to refine the type of data to act on. In addition to the WHERE clause, here are other commonly-used clauses:

AND or ORs

Combine multiple conditions to refine a SQL statement

LIKE: Compares a value to similar values using a wildcard

ORDER BY: Sorts data in ascending or descending order

If you are interested in further exploring SQL, SQL Fundamentals is a multi-part tutorial that explores the components and aspects of SQL in more detail.

## 1.2 INTRODUCTION TO FRONT END SOFTWARE

### PHP BACKGROUND

PHP is server-side scripting system

- PHP stands for "PHP: Hypertext Pre-processor"
- Syntax based on Perl, Java, and C – Very good for creating dynamic content – Powerful, but somewhat risky!
- If you want to focus on one system for dynamic content, this is a good one to choose.

### HISTORY

- Started as a Perl hack in 1994 by RasmusLerdorf (to handle his resume), developed to PHP/FI 2.0
- By 1997 up to PHP 3.0 with a new parser engine by ZeevSuraski and AndiGutmans
- Version 5.2.4 is current version, rewritten by Zend ([www.zend.com](http://www.zend.com)) to include a number of features, such as an object model
- Current is version 5
- PHP is one of the premier examples of what an open-source project can be PHP Scripts
- Typically file ends in .php--this is set by the web server configuration
- Separated in files with the <? php?> tag
- PHP commands can make up an entire file, or can be contained in html--this is a choice....

- Program lines end in ";" or you get an error
- Server recognizes embedded script and executes

## 1.3 PROJECT REPORT OUTLINE

**The report is arranged in the following way:**

**Chapter 1:** Introduction to SQL about its database, sql query, interpreting sql statements, AND or OR and range if sql statements

**Chapter 2:** Requirement specification of hardware and software

**Chapter 3:** Objective of the Project, design of project and developing

**Chapter 4:** Implementation of ER diagram and it's description

**Chapter 5:** Front End Design, connecting to database using PHP, Front end code of the Project

**Chapter 6:** Testing of project by different cases, it's process and testing objectives Chapter

**Chapter 7:** Outcome of the Project

## CHAPTER 2

### REQUIREMENT SPECIFICATION

#### 2.1 SOFTWARE REQUIREMENTS

Operating System : Windows7 or higher

Database : MYSQL

Tools : WampServer2.0 or higher

#### 2.2 HARDWARE REQUIREMENTS

Processor : Any Processor above 500 MHz

RAM : 4.00GB

Hard Disk : 1TB

Compact Disk : 700Mb

Input device : Keyboard

Output device : Laptop Display Screen

## CHAPTER 3

### OBJECTIVE OF THE PROJECT

1. The main objective of this application is to facilitate computer science students under VTU to buy textbooks online. Students can easily find any textbook related to syllabus without much difficulty which will save a lot of students' time as it is difficult to find textbooks in bookstores these days because of low availability of copies.
2. The purpose of the bookstore is to build an application program to reduce the manual work for managing books, customers and payments. The admin doesn't have to write it or remember it as the database is designed in such a way that it will automatically keep a record of any changes happening in the bookstore. This is designed with the help of triggers and stored procedure.
3. The entire control of the bookstore is under the admin. The admin can delete a book, insert a new book and also make any changes as he wishes to the website as the entire website is under his control. The admin can also change the price of any book and can also add a book related to other stream.
4. After entering the website, there is an option in the top right corner for admin login and can login through it. The admin has to first login using his Username and Password to take control of the website and of the database. Admin can then make any changes to the database through insert, update and delete operations.
5. The online bookstore does not only facilitate students under VTU studying computer science but also individuals who take great interest in learning computer science related subjects like programming languages in computer science like python, java, C++, C and many more. Not just programming languages but also various concepts related to computer science like artificial intelligence and machine learning which are very much in trend these days.
6. The textbooks are divided into categories like publishers and also semester categories. Under the semester categories comes third, fourth, fifth, sixth, seventh and eighth semesters. The website hosts all the textbooks which come under computer science department and all of these semesters. Under the publisher category, the books are divided based on the publisher of the book. The student can easily find the book they are searching for by just looking at the semester or the name of the publisher.

7. The student can search the book directly in the website by entering the name of the book they are searching for in the search bar. They can find the whole list of books under that name along with some information related to the book.
8. The students log on to the website and find the book they require, after that they have to enter their details for delivery of the book. They don't have to create an account and sign up to visualize the books in the store, they can browse through the website without even creating an account as a guest.

## CHAPTER 4

### IMPLEMENTATION

#### 4.1 ER DIAGRAM

The following ER DIAGRAM shows the entity relationships of ONLINE BOOKSTORE MANAGEMENT

The entities of the following ER are **BOOKS**, **PUBLISHER**, **ADMIN**, **CUSTOMERS**, **ORDERS**, **ORDER\_ITEMS**, **SEM\_CATEGORIES**, **BOOKS\_DELETED**

Let the attributes of the **BOOKS** entity be book\_isbn, book\_title, book\_author, book\_image, book\_desc, book\_price, publisherid, semid

Similarly, the attributes of **PUBLISHER** entity are publisherid, publisher\_name

Attributes for **ADMIN** are name, pass

Attributes for **CUSTOMERS** customerid, name, address, city, zip\_code, state

Attributes for **ORDERS** ordered, customerid, amount, date, ship\_name, ship\_address, ship\_city, ship\_zip\_code, ship\_state

Attributes for **ORDER\_ITEMS** ordered, book\_isbn, item\_price, quantity

Attributes for **SEM\_CATEGORIES** semis, sem\_name

Attributes for **BOOKS\_DELETED** book\_isbn, book\_title, book\_price, delete\_date

Let the first relation be **PUBLISHES** between **PUBLISHER** and **BOOKS** entities i.e, the Publisher publishes Books with cardinality ratio 1:N, Partial participation from Books and Total Participation from Publisher.

Let the second relation be **MANAGES** between **ADMIN** and **BOOKS** entities i.e, the Admin manages all the books in the store with cardinality ratio 1:N, Partial participation from Books and Total Participation from Admin.

Let the third relation be **SEM\_WISE** between **SEM\_CATEGORIES** and **BOOKS** entities i.e, the Books are divided semester wise with cardinality ratio 1:1, Partial participation from Sem\_categories and Total Participation from Books.

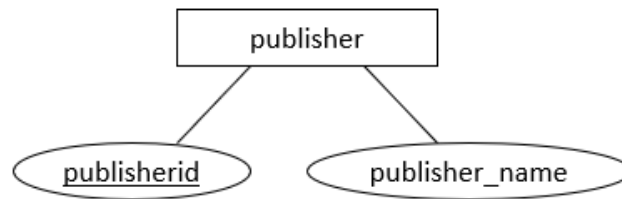
Let the fourth relation be **ORDERED\_BY** between **CUSTOMER** and **BOOKS** entities i.e, the Books are ordered by customer with cardinality ratio M:N, Partial participation from Customer and Total Participation from Books.

Let the fifth relation be **DELETE\_BOOK** between **ADMIN** and **BOOKS\_DELETED** entities i.e, the List of books removed or deleted by the admin with cardinality ratio 1:1, Partial participation from Books\_deleted and Total Participation from Admin.



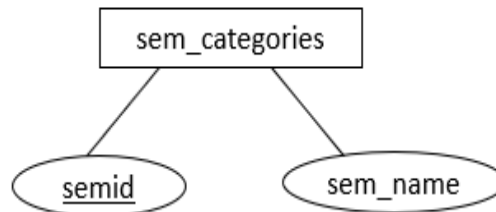


## STEP 1: MAPPING OF REGULAR ENTITY TYPE



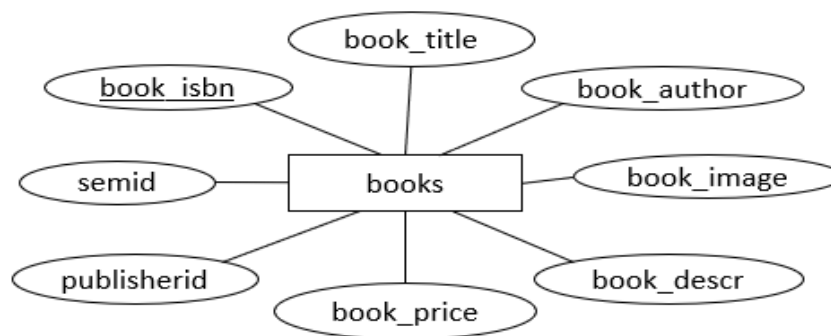
publisher

<u>Publisherid</u>	publisher_name
--------------------	----------------



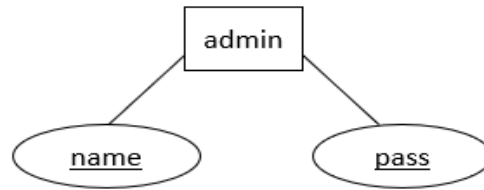
sem\_categories

<u>semid</u>	sem_name
--------------	----------



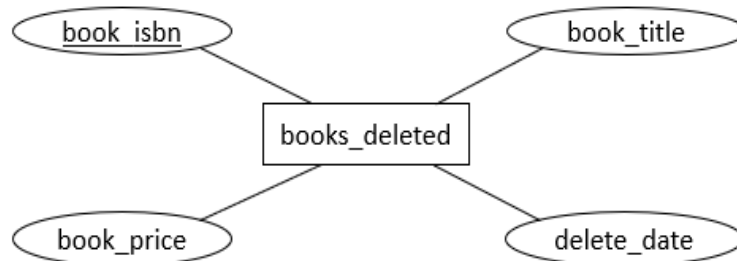
books

<u>book_isbn</u>	book_title	book_author	book_image	book_descr	book_price	publisherid	semid
------------------	------------	-------------	------------	------------	------------	-------------	-------



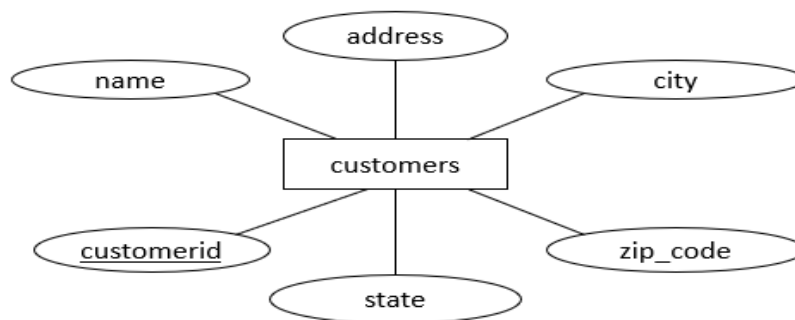
admin

<u>name</u>	<u>pass</u>
-------------	-------------



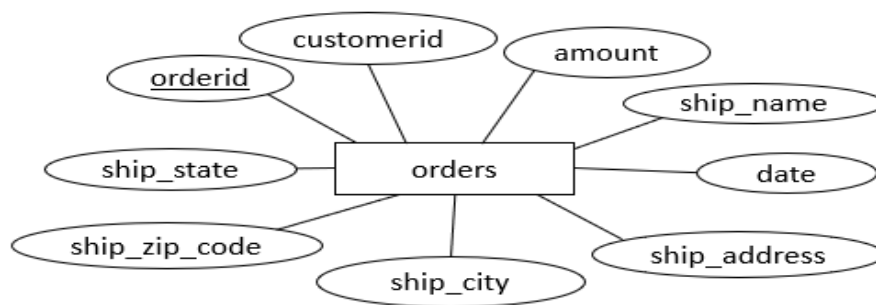
books\_deleted

<u>book_isbn</u>	book_title	book_price	delete_date
------------------	------------	------------	-------------



customers

<u>customerid</u>	name	address	city	zip_code	state
-------------------	------	---------	------	----------	-------



orders

<u>orderid</u>	customerid	amount	date	ship_name	address	ship_city	zip_code	state
----------------	------------	--------	------	-----------	---------	-----------	----------	-------

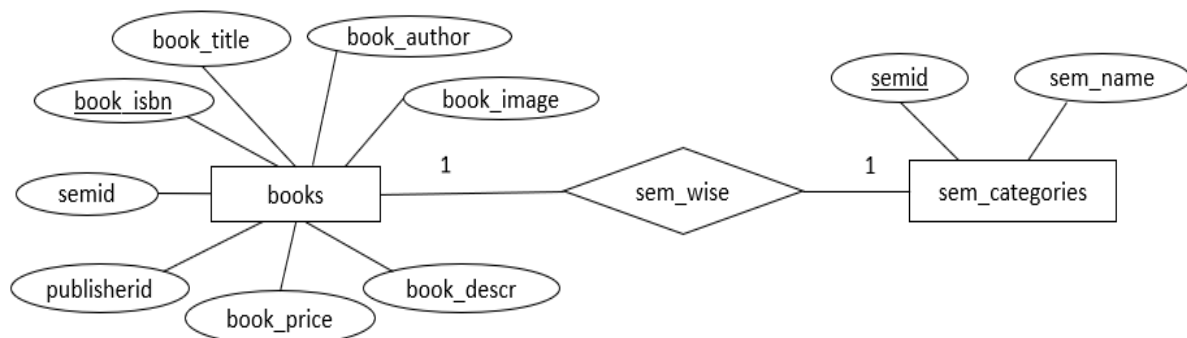
## STEP 2: MAPPING OF WEAK ENTITY TYPES



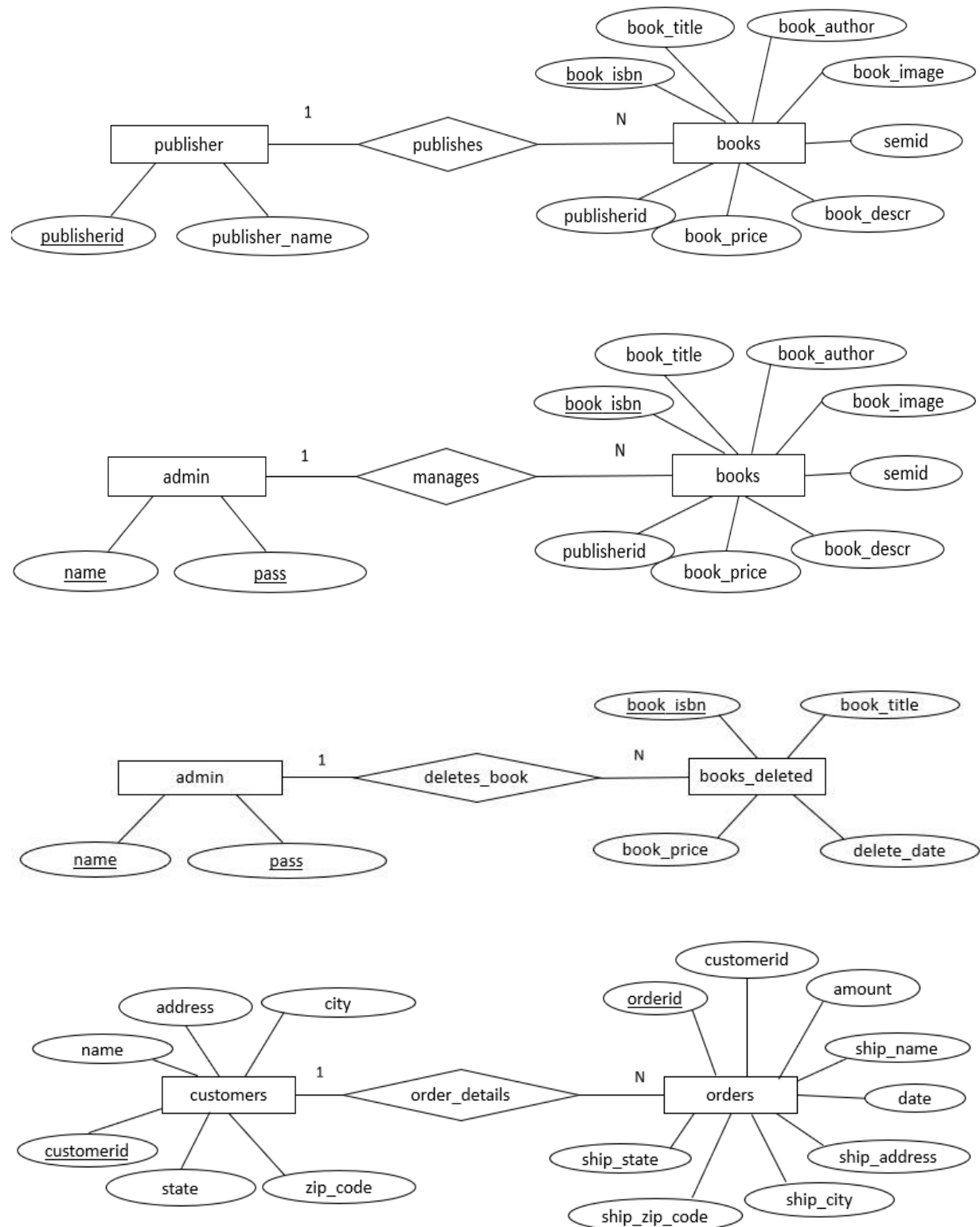
order\_items

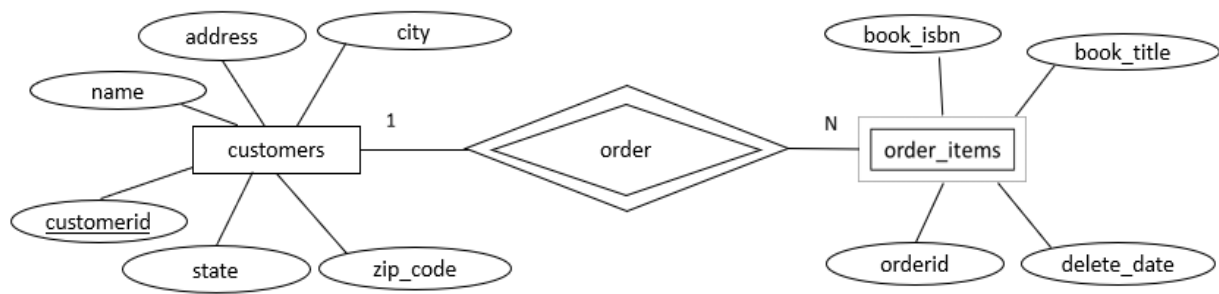
orderid	book_isbn	item_price	quantity
---------	-----------	------------	----------

## STEP 3: MAPPING OF 1:1 RELATIONS

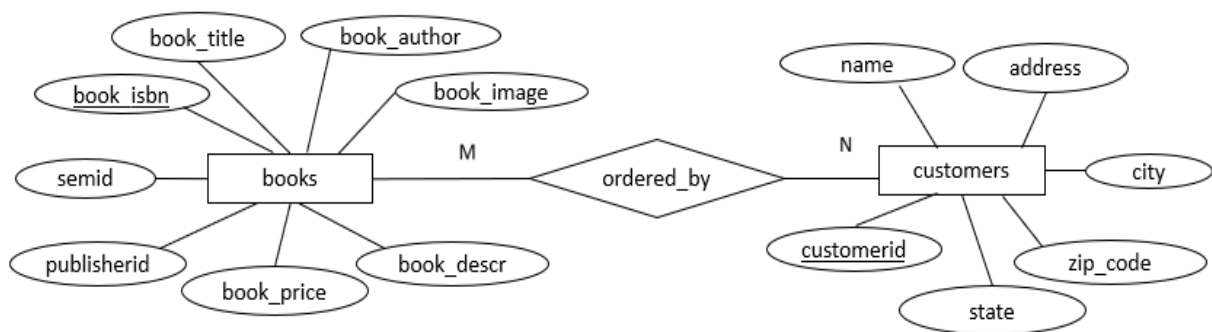


## STEP 4: MAPPING OF 1:N RELATIONS





### STEP 5: MAPPING OF M:N RELATIONS



### STEP 6: MAPPING OF MULTI-VALUED RELATIONS

No Multi-valued relational types

### STEP 7: MAPPING OF N-ARRAY RELATIONS

No N-array relational types

### 4.3 MAPPING OF THE ER SCHEMA TO RELATIONS

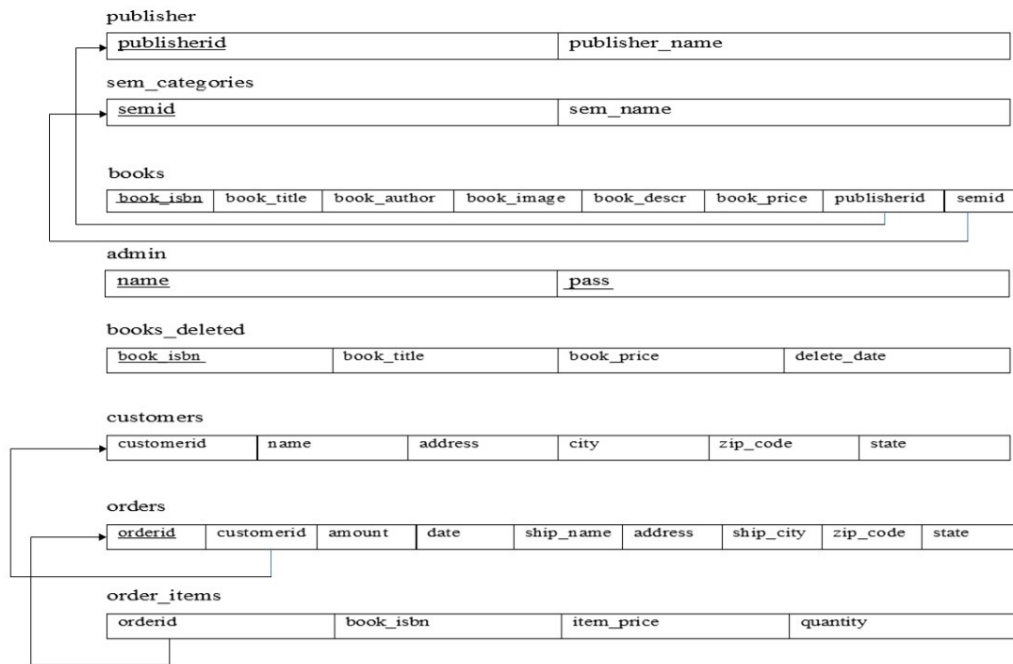


Fig 4.3: Schema Diagram of Online Bookstore Management System

### 4.4 CREATION OF TABLES

CREATE TABLE PUBLISHER

(‘PUBLISHERID’ INT(10) PRIMARY KEY,  
‘PUBLISHER\_NAME’ VARCHAR(60));

Field	Type	Null	Key	Default	Extra
publisherid	int(10) unsigned	NO	PRI	NULL	auto_increment
publisher_name	varchar(60)	NO		NULL	

CREATE TABLE SEM\_CATEGORIES

(‘SEMID’ INT(11) PRIMARY KEY,  
‘SEM\_NAME’ VARCHAR(20) );

Field	Type	Null	Key	Default	Extra
semid	int(11)	NO	PRI	NULL	
sem_name	varchar(20)	NO		NULL	

CREATE TABLE BOOKS

('BOOK\_ISBN; VARCHAR(20) PRIMARY KEY,

'BOOK\_TITLE' VARCHAR(60),

'BOOK\_AUTHOR' VARCHAR(60),

'BOOK\_IMAGE' VARCHAR(40),

'BOOK\_DESC' TEXT,

'BOOK\_PRICE' DECIMAL(6,2),

'PUBLISHERID' INT(10) UNSIGNED,

'SEMID' INT(11),

KEY(PUBLISHERID)REFERENCES PUBLISHER (PUBLISHERID) ON DELETE

CASCADE ON UPDATE CASCADE

KEY(SEMID)REFERENCES SEM\_CATEGORIES(SEMID) ON DELETE CASCADE ON  
UPDATE CASCADE);

Field	Type	Null	Key	Default	Extra
book_isbn	varchar(20)	NO	PRI	NULL	
book_title	varchar(60)	NO		NULL	
book_author	varchar(60)	NO		NULL	
book_image	varchar(40)	NO		NULL	
book_descr	text	YES		NULL	
book_price	decimal(6,2)	NO		NULL	
publisherid	int(10) unsigned	NO	MUL	NULL	
semid	int(11)	NO	MUL	NULL	

CREATE TABLE ADMIN

('NAME' VARCHAR(20) PRIMARY KEY,

'PASS' VARCHAR(40) PRIMARY KEY );

Field	Type	Null	Key	Default	Extra
name	varchar(20)	NO	PRI	NULL	
pass	varchar(40)	NO	PRI	NULL	

CREATE TABLE BOOKS\_DELETED

(‘BOOK\_ISBN’ VARCHAR(20) PRIMARY KEY,  
‘BOOK\_TITLE’ VARCHAR(60),  
‘BOOK\_PRICE’ DECIMAL(6,2),  
‘DELETE\_DATE’ DATE );

Field	Type	Null	Key	Default	Extra
book_isbn	varchar(20)	NO	PRI	NULL	
book_title	varchar(60)	NO		NULL	
book_price	decimal(6,2)	NO		NULL	
delete_date	date	NO		NULL	

CREATE TABLE CUSTOMERS

(‘CUSTOMERID’ VARCHAR(20) PRIMARY KEY,  
‘NAME’ VARCHAR(60),  
‘ADDRESS’ VARCHAR(80),  
‘CITY’ VARCHAR(30),  
‘ZIP\_CODE’ VARCHAR(10),  
‘STATE’ VARCHAR(60) );

Field	Type	Null	Key	Default	Extra
customerid	varchar(20)	NO	PRI	NULL	
name	varchar(60)	NO		NULL	
address	varchar(80)	NO		NULL	
city	varchar(30)	NO		NULL	
zip_code	varchar(10)	NO		NULL	
state	varchar(60)	NO		NULL	

CREATE TABLE ORDERS

(‘ORDERID’ VARCHAR(20) PRIMARY KEY,  
‘CUSTOMERID’ VARCHAR(20),  
‘AMOUNT’ DECIMAL(6,2),  
‘DATE’ TIMESTAMP,  
‘SHIP\_NAME’ CHAR(60),  
‘SHIP\_ADDRESS’ CHAR(80),  
‘SHIP\_CITY’ CHAR(30),  
‘SHIP\_ZIP\_CODE’ CHAR(10),



'SHIP\_STATE' CHAR(20),

KEY(CUSTOMERID) REFERENCES CUSTOMERS(CUSTOMERID) ON DELETE  
CASCADE ON UPDATE CASCADE );

Field	Type	Null	Key	Default	Extra
orderid	varchar(20)	NO	PRI	NULL	
customerid	varchar(20)	NO	MUL	NULL	
amount	decimal(6,2)	NO		NULL	
date	timestamp	NO		CURRENT_TIMESTAMP	
ship_name	char(60)	NO		NULL	
ship_address	char(80)	NO		NULL	
ship_city	char(30)	NO		NULL	
ship_zip_code	char(10)	NO		NULL	
ship_state	char(20)	NO		NULL	

CREATE TABLE ORDER\_ITEMS

('ORDERID' VARCHAR(20),

'BOOK\_ISBN' VARCHAR(20),

'ITEM\_PRICE' DECIMAL(6,2),

'QUANTITY' TINYINT(3) UNSIGNED,

KEY(ORDERID) REFERENCES ORDERS (ORDERID) ON DELETE CASCADE ON  
UPDATE CASCADE);

Field	Type	Null	Key	Default	Extra
orderid	varchar(20)	NO	MUL	NULL	
book_isbn	varchar(20)	NO		NULL	
item_price	decimal(6,2)	NO		NULL	
quantity	tinyint(3) unsigned	NO		NULL	

## 4.5 INSERTION OF TUPLES

**TABLE 1**

INSERT INTO `PUBLISHER` (`PUBLISHERID`, `PUBLISHER\_NAME`) VALUES

(1, 'UNIVERSITIES PRESS');

publisherid	publisher_name
1	Universities Press
2	Cengage Learning
3	Tata McGraw Hill
4	Pearson Education
5	Oxford University Press
6	Intel Press
7	McGraw Hill

TABLE 2

INSERT INTO `SEM\_CATEGORIES` (`SEMID`, `SEM\_NAME`) VALUES  
(3, '3RD SEM');

semid	sem_name
3	3rd Sem
4	4th Sem
5	5th Sem
6	6th Sem
7	7th Sem
8	8th Sem

TABLE 3

INSERT INTO `BOOKS` (`BOOK\_ISBN`, `BOOK\_TITLE`, `BOOK\_AUTHOR`,  
`BOOK\_IMAGE`, `BOOK\_DESCR`, `BOOK\_PRICE`, `PUBLISHERID`, `SEMID`)  
VALUES

('978-0072226805', 'OBJECT ORIENTED CONCEPTS', 'HERBERT SCHILDTN',  
'OOC.JPG', 'OBJECT-ORIENTED PROGRAMMING WITH JAVA WAS DEVELOPED  
FOR STUDENTS IN THE SCIENCE, ENGINEERING, AND BUSINESS FIELDS WHERE  
KNOWLEDGE OF PROGRAMMING IS THOUGHT TO BE ESSENTIAL. THIS TEXT, ON  
MODERN SOFTWARE DEVELOPMENT, CONTAINS MATERIAL THAT IS  
TYPICALLY COVERED IN A CS1 COURSE. IN ADDITION TO TRADITIONAL  
INTRODUCTORY PROGRAMMING CONCEPTS, OBJECT-ORIENTED CONCEPTS  
AND TECHNIQUES SUCH AS INHERITANCE AND POLYMORPHISM ARE  
PRESENTED IN A STUDENT-FRIENDLY MANNER. JAVA-RELATED TOPICS SUCH  
AS EXCEPTION HANDLING AND THE JAVA I/O MODELS ARE CAREFULLY  
TREATED, AND AN ENTIRE CHAPTER IS DEVOTED TO JAVA APPLETS. \R/N',  
'729.00', 3, '4');

book_isbn	book_title	book_author	book_image	book_descr	book_price	publisherid	semid
978-0072226805	OBJECT ORIENTED CONCEPTS	Herbert Schildtn	OOC.jpg	Object-Oriented Programming With Java Was Develope...	729.00	3	4
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978-0195692327	NATURAL LANGUAGE PROCESSING	Tanveer Siddiqui, U.S. Tiwary	NLP.jpg	Research in Natural Language Processing (NLP) has ...	669.00	5	7
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978-1492059318	MULTICORE ARCHITECTURE AND PROGRAMMING	Shameem Akhter and Jason Roberts	MCP.jpg	Software developers can no longer rely on increasi...	520.00	6	8
978-1492078197	ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING	Tom M Mitchell	ML.jpg	This book offers the readers the basics of machine...	599.00	7	7
978-1558603202	SYSTEM SOFTWARE AND COMPILERS	K C Louden	CC.jpg	The emergence of the system-on-chip (SoC) era is c...	280.00	2	6
978-1558608740	MICROCONTROLLER AND EMBEDDED SYSTEMS	Andrew N Sloss, Dominic Symes and Chris Wright	MCES.jpg	Key Features No other book describes the ARM core ...	495.00	4	4
978-1563279929	APPLICATION DEVELOPMENT USING PYTHON	Al Sweigart	PYTHON.jpg	In this fully revised second edition of the best-s...	1190.00	3	5
978-3319207438	BIG DATA AND ANALYTICS	Raj Kamal and Preeti Saxena	BDA.jpg	About the Book: Big Data Analytics, Introduction t...	689.00	7	7
978-3319584967	INTRODUCTION TO ARTIFICIAL INTELLIGENCE	E.Rich,K.Knight & S.B. Nair	AI.jpg	Artificial Intelligence provides a comprehensive c...	799.00	7	7
978-7115557197	INTERNET OF THINGS	David Hanes, Gonzalo Salgueiro	IoT.jpg	About the Book: IoT Fundamentals Features The auth...	512.00	4	7
978-9332518711	COMPUTER GRAPHICS AND VISUALIZATION	Donald Hearn & Pauline Baker	CGC.jpg	About the Book: Computer Graphics C Version Donald...	495.00	4	6
978-9353502355	ANALOG AND DIGITAL ELECTRONICS	Charles H Roth and Larry L Kinney	ADE.jpg	This book is targeted towards beginners who aspire...	499.00	2	3

**TABLE 4**

```
INSERT INTO `ADMIN` (`NAME`, `PASS`) VALUES  
(`ADMIN`, `PASSWORD`);
```

name	pass
admin	d033e22ae348aeb5660fc2140aec35850c4da997
admin	password

**TABLE 5**

```
INSERT INTO 'BOOKS_DELETED' ('BOOK_ISBN', 'BOOK_TITLE', 'BOOK_PRICE',  
'DELETE_DATE') VALUES  
(123-5672612, 'COMPUTER TRICKS', 450.00, 2022-01-27);
```

book_isbn	book_title	book_price	delete_date
123-5672612	Computer Tricks	450.00	2022-01-27

**TABLE 6**

```
INSERT INTO 'CUSTOMERS' ('CUSTOMER', 'NAME', 'ADDRESS', 'CITY',  
'ZIP_CODE', 'STATE') VALUES ('61DFD6E0E808C', 'KALPANA', 'GIRINAGAR',  
'BANGALORE', 560026, 'KARNATAKA');
```

customerid	name	address	city	zip_code	state
61dfd6e0e808c	Kalpana	Girinagar	Bangalore	560026	Karnataka
61f3d3b7e3735	Sathya	Tilaknagar	Shimoga	520134	Karnataka
61e057f3415b2	Sindhu	Nasik	Mumbai	560001	Maharashtra
61e5069981517	Vaishnavi dh	Ullala	Bidar	560001	Karnataka

**TABLE 7**

```
INSERT INTO 'ORDERS' ('ORDERID', 'CUSTOMERID', 'AMOUNT', 'DATE',  
'SHIP_NAME', 'SHIP_ADDRESS', 'SHIP_CITY', 'SHIP_ZIP_CODE', 'SHIP_STATE')  
(`61DFD6E10ACFE`, `61DFD6E0E808C`, 600.00, `2022-01-13 07:38:09`, `KALPANA`,  
`GIRINAGAR`, `BANGALORE`, 560026, `KARNATAKA`);
```

orderid	customerid	amount	date	ship_name	ship_address	ship_city	ship_zip_code	ship_state
61dfd6e10acfe	61dfd6e0e808c	600.00	2022-01-13 07:38:09	Kalpana	Girinagar	Bangalore	560026	Karnataka
61e057f34f803	61e057f3415b2	729.00	2022-01-13 16:48:51	Sindhu	Nasik	Mumbai	560001	Maharashtra
61e506998ed65	61e5069981517	729.00	2022-01-17 07:03:05	Vaishnavi dh	Ullala	Bihar	560001	Karnataka
61f3d3b80597b	61f3d3b7e3735	669.00	2022-01-28 11:30:00	Sathya	Tilaknagar	Shimoga	520134	Karnataka

**TABLE 8**

```
INSERT INTO ORDER_ITEMS ('ORDERID', 'BOOK_ISBN', 'ITEM_PRICE',  
'QUANTITY'),  
( '61DFD6E10ACFE', '978-0073250328', 600.00, 1);
```

orderid	book_isbn	item_price	quantity
61dfd6e10acfe	978-0073250328	600.00	1
61e057f34f803	978-0072226805	729.00	1
61e506998ed65	978-0072226805	729.00	1
61f3d3b80597b	978-0195692327	669.00	1

## 4.6 CREATION OF TRIGGERS

DELIMITER \$\$

```
CREATE TRIGGER `books_deleted_record` AFTER DELETE ON `books` FOR EACH ROW  
INSERT INTO books_deleted VALUES( old.book_isbn, old.book_title, old.book_price,  
NOW())
```

\$\$

DELIMITER ;

**Add trigger**

**Details**

**Trigger name** books\_deleted\_record

**Table** books\_deleted

**Time** AFTER

**Event** DELETE

**Definition**

```
1 INSERT INTO books_deleted VALUES(  
old.book_isbn, old.book_title,  
old.book_price, NOW())  
2
```

Go Close

## 4.7 CREATION OF STORED PROCEDURES

BEGIN

SELECT \* FROM ORDERS;

END

The screenshot shows a window titled "Edit routine" with a close button (X) in the top right corner. Inside the window, there is a "Details" tab. Under this tab, the "Routine name" is "display\_orders" and the "Type" is "PROCEDURE". Below these fields is a table with columns: "Parameters", "Direction", "Name", "Type", "Length/Values", and "Options". The table is currently empty, and there is a button labeled "Add parameter" below the column headers. To the left of the table is a "Definition" section. The definition text is as follows:

```
1 BEGIN
2 SELECT * FROM orders;
3 END
```

At the bottom of the dialog, there are two checkboxes: "Is deterministic" (unchecked) and "Adjust privileges" (checked). There are "Go" and "Close" buttons at the bottom right of the dialog.

## CHAPTER 5

### FRONT END DESIGN

#### 5.1 CONNECTIVITY TO DATABASE

##### Rationale

- Most Web Applications: - Retrieve information from a database to alter their on-screen display-Store user data such as orders, tracking, credit card, etc. in a database.
- Permits them to adapt individual users, and provide fresh changing content.

##### PHP: Built-in Database Access

- PHP provides built in database connectivity for a wide range of databases - MySQL, PostgreSQL, Oracle, Berkeley DB, Informix, MySQL, Lotus Notes, and more - Starting support for a specific database may involve PHP configuration steps.
- Another advantage of using a programming language that has been designed for the creation of web apps.
- Support for each database is described in the PHP manual at:-  
<http://www.php.net/manual/en/>

##### High-Level Process of Using MySQL from PHP

- Create a database connection.
- Select database you wish to use.
- Perform a SQL query.
- Do something processing on query results.
- Close database connection.

## CREATING DATABASE CONNECTION

- Use either `mysql_connect` or `mysql_pconnect` to create database connection
  - `mysql_connect`: connection is closed at the end of script (end of page).
  - `mysql_pconnect`: creates persistent connection
- connection remains even after the end of the page
- parameters
- Server - hostname of the server.
- Username - username on the database.
- Password - password on the database - new link (`mysql_connect` only).
- reuse database connection created by previous call to `mysql_connect` - Client Flags.
- `MYSQL_CLIENT_SSL`: Use SSL
- `MYSQL_CLIENT_COMPRESS`: Compress data sent to MySQL.

## SECURITY NOTE

- Username and password fields imply that database password is sitting there in the source code.
- If someone gains access to source code, can compromise the database.
- Servers are sometimes configured to view PHP source code when a resource is requested with “. phps” instead of “.php”.
- One approach to avoid this: put this information in web server configuration file.
- Then ensure the web server configuration file is not externally accessible.

## SELECTING A DATABASE

- `mysql_select_db ()` - Pass it the database name.
- Related: - `mysql_list_dbs ()`
- List databases available - `Mysql_list_tables ()`
- List database tables available.

## PERFORM SQL QUERY

- Create query string - `$query = 'SQL formatted string'` - `$query = 'SELECT*FROM table'`.

- Submit query to database for processing - `$result = mysql_query($query);` - For UPDATE, DELETE, DROP, etc, returns TRUE or FALSE - For SELECT, SHOW, DESCRIBE or EXPLAIN, `$result` is an identifier for the results, and does not contain the results themselves.
- `$result` is called a “resource” in this case.
- A result of FALSE indicates an error.
- If there is an error - `mysql_error ()` returns error string from last MySQL call.

## PROCESS RESULTS

- Many functions exist to work with database results.
- `mysql_num_rows ()` - Number of rows in the result set - Usefull for iterating over result set.
- `mysql_fetch_array()` - Returns a result row as an array.
- Can be associative or numeric or both (default).
- `$row = mysql_fetch_array($result) :- $row['column name'] :: value comes from database row with specified column name.`
- `$row[0] :: value comes from first field in result set.`

## PROCESS RESULTS LOOP

Easy loop for processing results:

```
$result = mysql_query($qstring); $num_rows = mysql_num_rows($result); for($i=0;
$i<num_row; $i++)
{
$row = mysql_fetch_array($result)
}
```

## CLOSING DATABASE CONNECTION

- `mysql_close ()`
- closes database connection.
- Only works for connections opened with `mysql_connect ()`.
- Connections opened with `mysql_pconnect ()` ignore this call.



- Often not necessary to call this, as connections created by `mysql_connect` are closed at the end of the script anyway.

## 5.2 FRONT END CODE

Systems design is the process of defining the architecture, components, modules, interfaces, and data for a system to satisfy specified requirements. Systems design could see it as the application of systems theory to product development. There is some overlap with the disciplines of systems analysis, systems architecture and systems engineering. If the broader topic of product development "blends the perspective of marketing, design, and manufacturing into a single approach to product development," then design is the act of taking the marketing information and creating the design of the product to be manufactured. Systems design is therefore the process of defining and developing systems to satisfy specified requirements of the user. Until the 1990s systems design had a crucial and respected role in the data processing industry. In the 1990s standardization of hardware and software resulted in the ability to build modular systems. The increasing importance of software running on generic platforms has enhanced the discipline of software engineering.

Object-oriented analysis and design methods are becoming the most widely used methods for computer systems design. [citation needed] The UML has become the standard language in object-oriented analysis and design. [citation needed] It is widely used for modelling software systems and is increasingly used for high designing non-software systems and organizations. [citation needed] System design is one of the most important phases of software development process. The purpose of the design is to plan the solution of a problem specified by the requirement documentation. In other words, the first step in the solution to the problem is the design of the project.

### PHP CODE FOR MAIN PAGE [IN THE DATABASE]

```
<?php
session_start();
$count = 0;
$title = "Index";
require_once "../template/header.php";
require_once "../functions/database_functions.php";
$conn = db_connect();
$row = select4LatestBook($conn);
```

```
?>
<p class="lead text-center text-muted">Latest books</p>
<div class="row">
    <?php foreach($row as $book) { ?>
        <div class="col-md-3">
            <a href="book.php?bookisbn=<?php echo $book['book_isbn']; ?>">
                
            </a>
        </div>
    <?php } ?>
</div>
<?php
if(isset($conn)) { mysqli_close($conn);}
require_once "./template/footer.php";
?>
```

## PHP CODE FOR DELETE [IN THE DATABASE]

```
<?php
$book_isbn = $_GET['bookisbn'];
require_once "./functions/database_functions.php";
$conn = db_connect();
$query = "DELETE FROM books WHERE book_isbn = '$book_isbn'";
$result = mysqli_query($conn, $query);
if(!$result){
    echo "delete data unsuccessfully " . mysqli_error($conn);
    exit;
}
header("Location: admin_book.php");
?>
```

## PHP CODE FOR TRIGGERS [IN THE DATABASE]

```
<?php
```



```
<?php } ?>
</tbody>
</table>
<?php }else{
    echo "<h2>No Record Found</h2>";
}
mysqli_close($conn);
?>
</div>
</div>
</body>
</html>
```

## PHP CODE FOR STORED PROCEDURES [IN THE DATABASE]

```
<?php
$conn = mysqli_connect("localhost","root","","www_project") or die("Connection Failed");
?>

<?php
$sql = "CALL display_orders";
$result = mysqli_query($conn, $sql) or die("Query Unsuccessful.");
if(mysqli_num_rows($result) > 0) {
    ?>
<h1> List Of Orders </h1>
    <thead>
        <th>Order ID</th>
        <th>Customer ID</th>
        <th>Bill_amount</th>
        <th>Date</th>
        <th>Ship Name</th>
        <th>Address</th>
        <th>City</th>
        <th>Pincode</th>
```

```
<th>State</th>
</thead>
<tbody>
  <?php
    while($row = mysqli_fetch_assoc($result)){
      ?>
      <tr>
        <td><?php echo $row['orderid']; ?></td>
        <td><?php echo $row['customerid']; ?></td>
        <td><?php echo $row['amount']; ?></td>
        <td><?php echo $row['date']; ?></td>
        <td><?php echo $row['ship_name']; ?></td>
        <td><?php echo $row['ship_address']; ?></td>
        <td><?php echo $row['ship_city']; ?></td>
        <td><?php echo $row['ship_zip_code']; ?></td>
        <td><?php echo $row['ship_state']; ?></td>
        <!-- <td>
          <a href='admin_edit.php?usn=<?php echo $row['USN']; ?>'>Edit</a>
          <a href='admin_delete.php?usn=<?php echo $row['USN']; ?>'>Delete</a>
        </td> -->
      </tr>
    <?php } ?>
  </tbody>
</table>
<?php }else{
  echo "<h2>No Record Found</h2>";
  mysqli_close($conn);
  ?>
</body>
</html>
```

## CHAPTER 6

# TESTING

This chapter gives the outline of all testing methods that are carried out to get a bug free system. Quality can be achieved by testing the product using different techniques at different phases of the project development. The purpose of testing is to discover errors. Testing is the process of trying to discover every conceivable fault or weakness in a work product. It provides a way to check the functionality of components sub-assemblies and/or a finished product. It is the process of exercising software with the intent of ensuring that the Software system meets its requirements and user expectations and does not fail in an unacceptable manner. There are various types of tests. Each test type addresses a specific testing requirement.

### 6.1 TESTING PROCESS

Testing is an integral part of software development. Testing process certifies whether the product that is developed compiles with the standards that it was designed to. Testing process involves building of test cases against which the product has to be tested.

#### 6.1.1 TESTING OBJECTIVES

The main objectives of testing process are as follows.

- Testing is a process of executing a program with the intent of finding an error.
- A good test case is one that has high probability of finding undiscovered error.
- A successful test is one that uncovers the undiscovered error.

#### 6.1.2 TEST CASES

The test cases provided here test the most important features of the project.

- **Test cases of the project**

**Table 6.1** ----Test cases

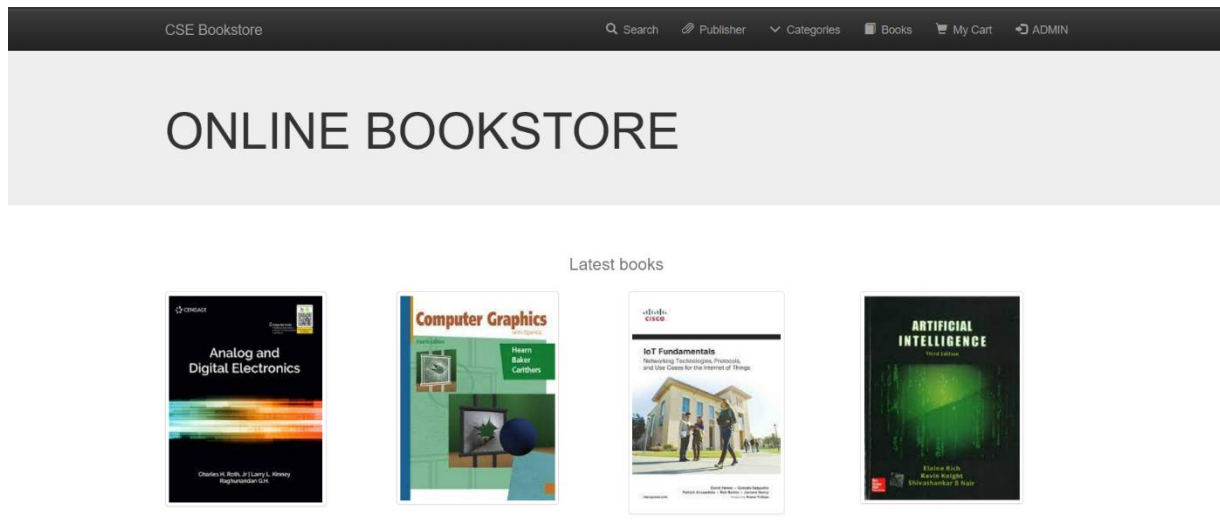
Sl No	Test Input	Expected Results	Observed Results	Remarks
1	Insert a Record	New tuple should be inserted	Query OK 1 row affected or inserted	PASS
2	Search a Record	Search from existing Records	Query OK 1 row affected or searched	PASS
3	Delete a record	Delete a Record	Query OK 1 row affected or deleted	PASS
4	Create Trigger	Trigger Created	Query OK Trigger created	PASS
5	Create Stored Procedure	Stored Procedure Created	Query OK Stored procedure created	PASS

## CHAPTER 7

### RESULTS

This section describes the screens of the “Project title”. The snapshots are shown below for each module.

#### 7.1 SNAPSHOTS



**Snapshot 1:** This is the front page, by clicking on the attributes, it takes you to the operation page.

The screenshot shows a form titled 'Add new book' within the 'CSE Bookstore' interface. The form has a dark header bar with the same navigation links as the previous screenshot. The form fields are arranged vertically: 'ISBN', 'Title', 'Author', 'Image' (with a 'Choose File' button and 'No file chosen' text), 'Description' (a large text area), 'Price', 'Publisher', and 'Sem ID'. At the bottom of the form are two buttons: 'Add new book' (in blue) and 'cancel' (in gray).

**Snapshot 2:** This Webpage is used for Inserting records.



CSE Bookstore

Search

Publisher

Categories

Books

My Cart

ADMIN

Add new book

Sign out!

Order Details

Books Deleted

ISBN	Title	Author	Image	Description	Price	Publisher	Sem ID	
978-9353502355	ANALOG AND DIGITAL ELECTRONICS	Charles H Roth and Larry L Kinney	ADE.jpg	This book is targeted towards beginners who aspire to learn the fundamental concepts of analog and digital electronics. The concepts are explained in a simple and lucid manner. Some of the real-time applications of the concepts are discussed. Numerous examples based on the concepts enable the readers to understand the subject clearly. This book covers the syllabus of major universities with systematic presentation. The book comprises of two parts, namely, Part A: Analog Electronics - which covers 9 chapters and Part B: Digital Electronics - which covers 13 chapters. Each unit consists of objectives which state precisely what the student is expected to learn, followed by the concepts, solved problems, review questions, and also real-time applications to make the concepts clear. The students learn, both, theory and its application. Additional study material, answers to review questions, and Lab Manual are provided in the Cengage App	499.00	Cengage Learning	3	<a href="#">Edit</a> <a href="#">Delete</a>

**Snapshot 3:** Select an operation. Whether to Display, Update, Delete for the records.

CSE Bookstore

Search

Publisher

Categories

Books

My Cart

ADMIN

Search Book By Title:

Search Result

Sl.no	Book ISBN	Title	Author	Price	Semester
1	978-0072465631	DATABASE MANAGEMENT SYSTEM	Ramakrishnan and Gehrke	888.00	5

**Snapshot 4:** This Webpage is used for Searching records.

## List Of Books Deleted

---

Book_ISBN	Book Title	Book Price	Date of Deletion
123-5672612	Computer Tricks	450.00	2022-01-27
258-852741963	Aptitude Enhancement	500.00	2022-01-31

### Snapshot 5: Trigger.

## List Of Orders

---

Order ID	Customer ID	Bill_amount	Date	Ship Name	Address	City	Pincode	State
61dfd6e10acfe	61dfd6e0e808c	600.00	2022-01-13 07:38:09	Kalpana	Girinagar	Bangalore	560026	Karnataka
61e057f34f803	61e057f3415b2	729.00	2022-01-13 16:48:51	Sindhu	Nasik	Mumbai	560001	Maharashtra
61e506998ed65	61e5069981517	729.00	2022-01-17 07:03:05	Vaishnavi dh	Ullala	Bihar	560001	Karnataka
61f3d3b80597b	61f3d3b7e3735	669.00	2022-01-28 11:30:00	Sathya	Tilaknagar	Shimoga	520134	Karnataka

### Snapshot 6: Stored Procedure.

## CONCLUSION

With the theoretical inclination of our syllabus, it becomes very essential to take the at most advantage of any opportunity of gaining practical experience that comes along. The building blocks of this Major Project “ONLINE BOOKSTORE MANAGEMENT SYSTEM” was one of these opportunities. It gave us the requisite practical knowledge to supplement the already taught theoretical concepts thus making us more competent as a computer engineer. The project from a personal point of view also helped us in understanding the following aspects of project development.

- The planning that goes into implementing a project.
- The importance of proper planning and an organized methodology.
- The key element of team spirit and co-ordination in a successful project.

The project also provides us the opportunity of interacting with our teachers and to gain from their best experience.

## REFERENCES

- 1) Fundamentals of Database System, and ShamkantB.Navathe, 8<sup>th</sup> Edition 2019.
- 2) Database Management System, Ramakrishna and Gehrke, 4<sup>th</sup> Edition 2019.
- 3) The Complete Reference PHP by Steven Holzner.
- 4) Website: <http://php.net/manual/en/language.references.php> & videos in youtube.com
- 5) Website for Book Database: [www.sapnaonline.com](http://www.sapnaonline.com)