ANALYSIS

INTRODUCTION

Bookshop Management System is a very useful system as it helps users to handle the bookshop daily activity. However, once the bookshop having so many customers, a computerized well-organised system is needed to control these community each one individually. In this part, the system would show the discussion and analysing part of developing process of Bookshop Management System and how to get a benefit from it as much as possible.

PROBLEM DESCRIPTION

The problem is in previous times, manual management is being used to record book transaction and this system mainly targeting on the small bookshop owners. In this proposed system, the target also includes the customers. Customers, as the user of the system will be able to view details of the books and purchase them. As the system is computerized, problems such as file lost, file corrupted and time-consuming can be avoided. Hence, it is more convenient and time-saving to users in managing transaction of the books.

PROBLEM DECOMPOSITION

The problem that arises when using non computerized system includes:

1) File managed is lost and damaged

Non computerized system would result to a file lost and file damaged. This might be because of carelessness or in other possibility it might be because of accidents. For example, sometimes the owners forgot where the file is placed as they did not keep it in their original place. There are also times when accidents happened such as the ink spilled or the paper accidentally torn which resulting to file damaged.
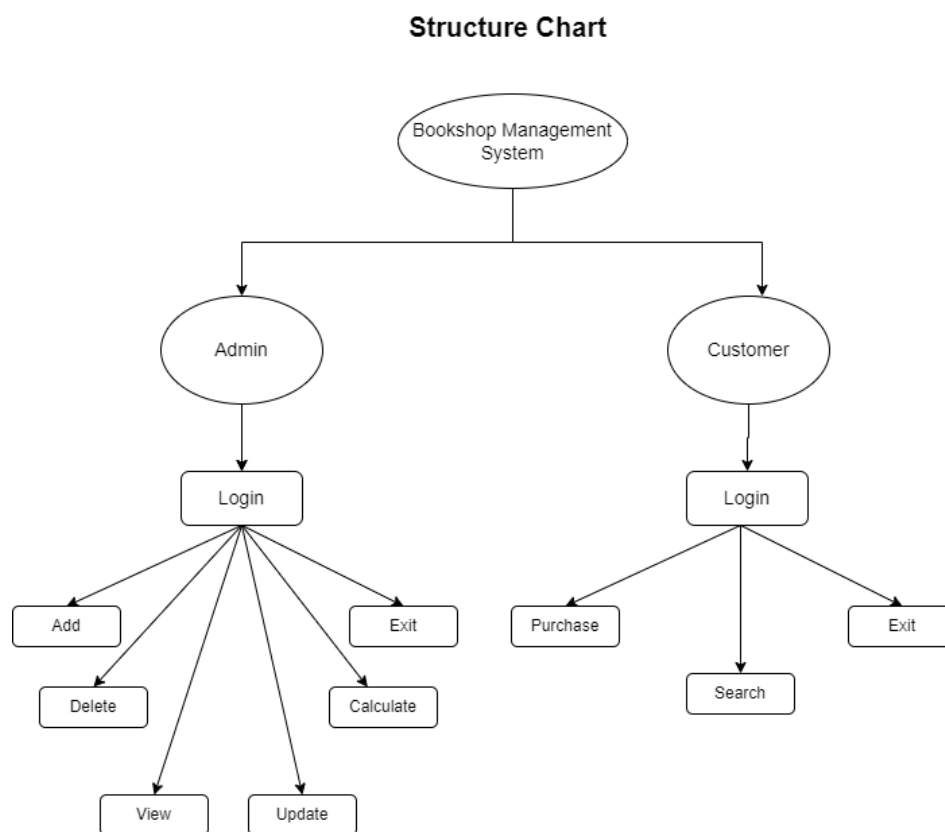
2) Time and space-consuming

When no computerized system is implemented, the time consuming to do bookshop activities will become much longer. The admins will need time to search for book's information to record the transaction done. Besides that, it is also space-consuming as the physical record was getting more and more after a really long time and place is needed to store the data.

3) Difficult to track and analyses record

Tracking and analyses record manually can be difficult. This is because one or more files need to be use or had accessed to find information required. A heavier workload and more resources needed to generate report, reducing the efficiency working.
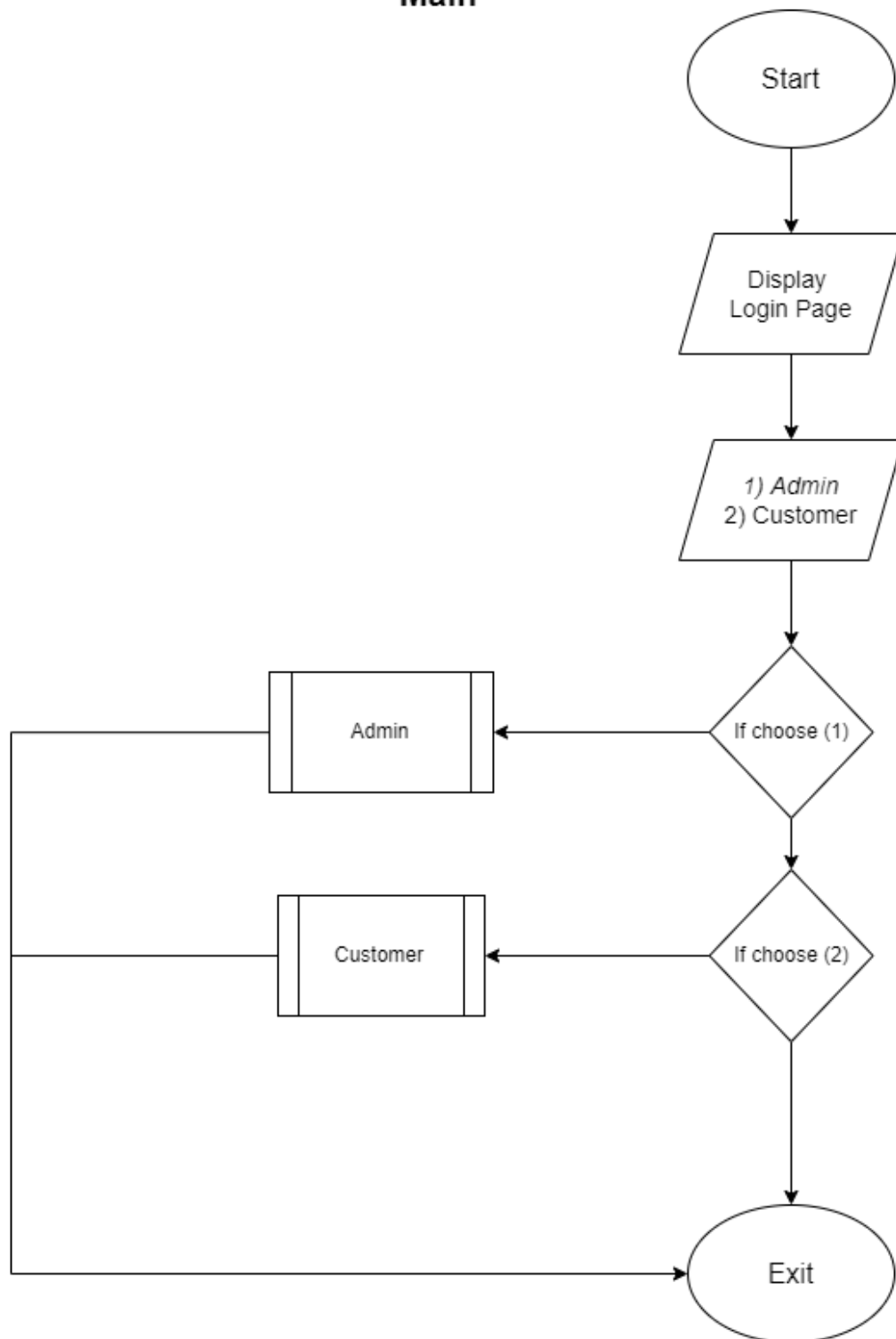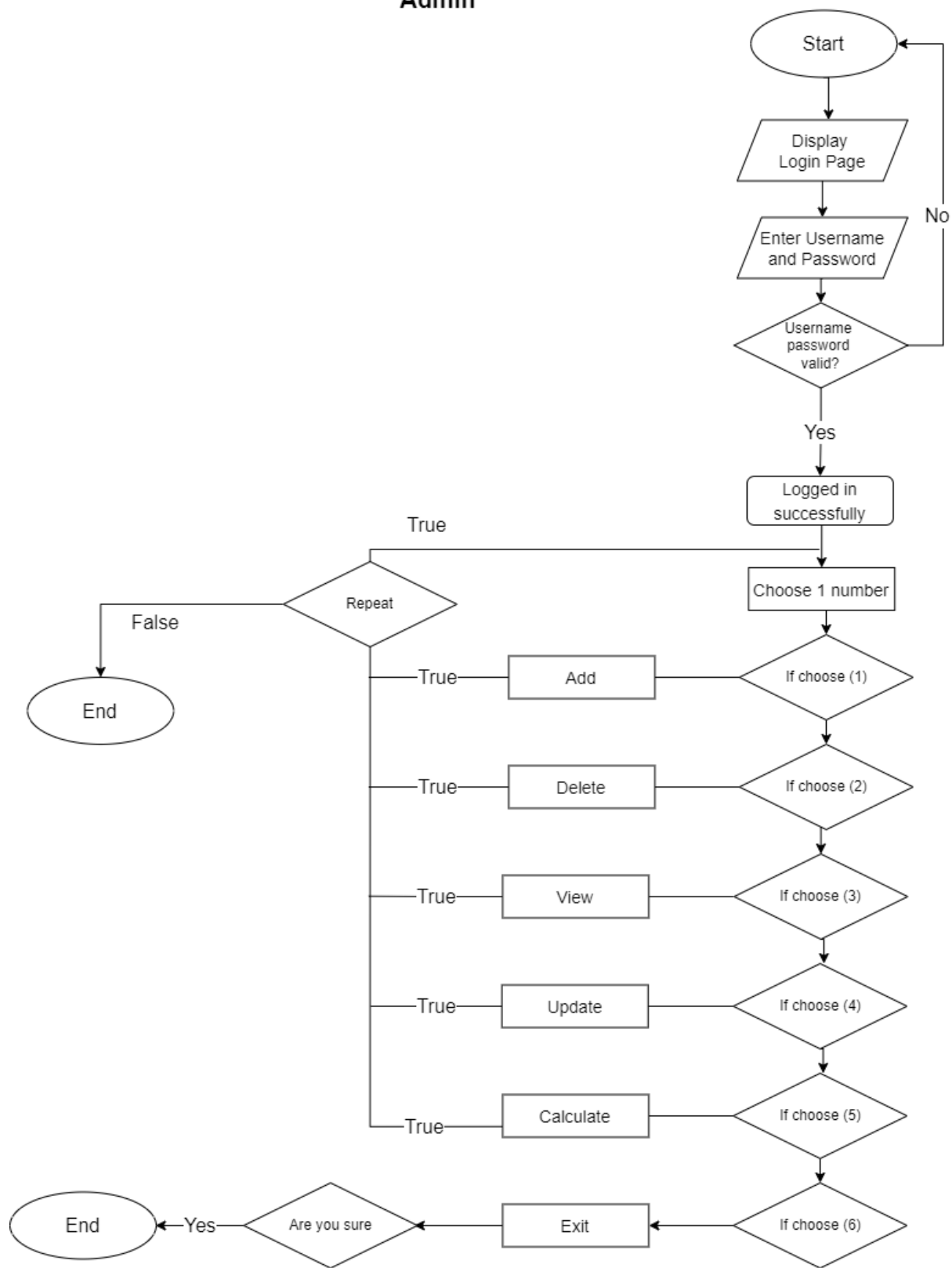
STRUCTURE CHART

Structure Chart:

Structure Chart

DESIGN

FLOW CHART

Flow Chart (Main):

Flow Chart (Admin):

Admin

Start

Display Login Page

Enter Username and Password

Username password valid? — No

Yes

Logged in successfully

Choose 1 number

Repeat — True / False

End

If choose (1) — True — Add

If choose (2) — True — Delete

If choose (3) — True — View

If choose (4) — True — Update

If choose (5) — True — Calculate

If choose (6) — Exit — Are you sure — Yes — End
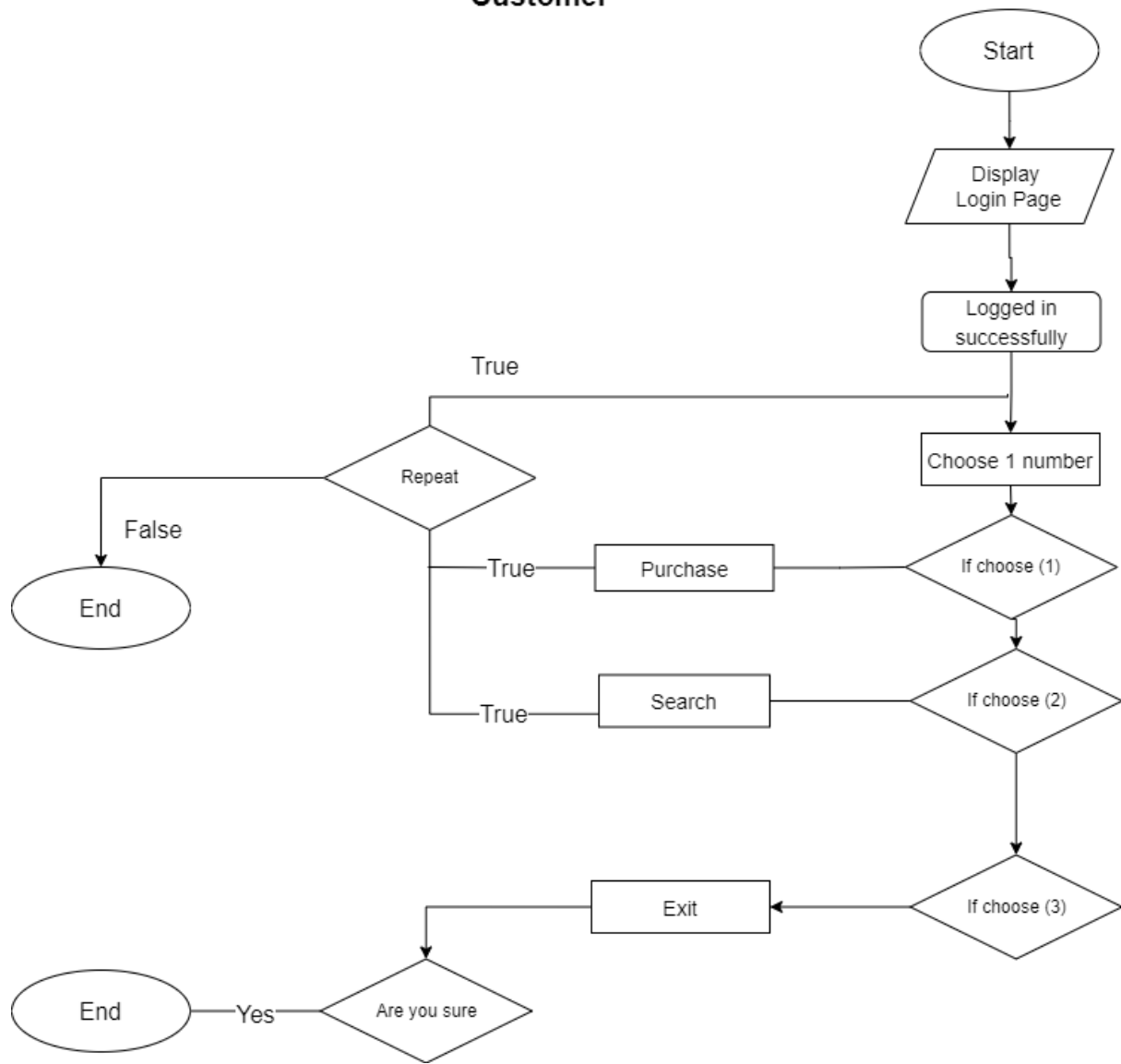
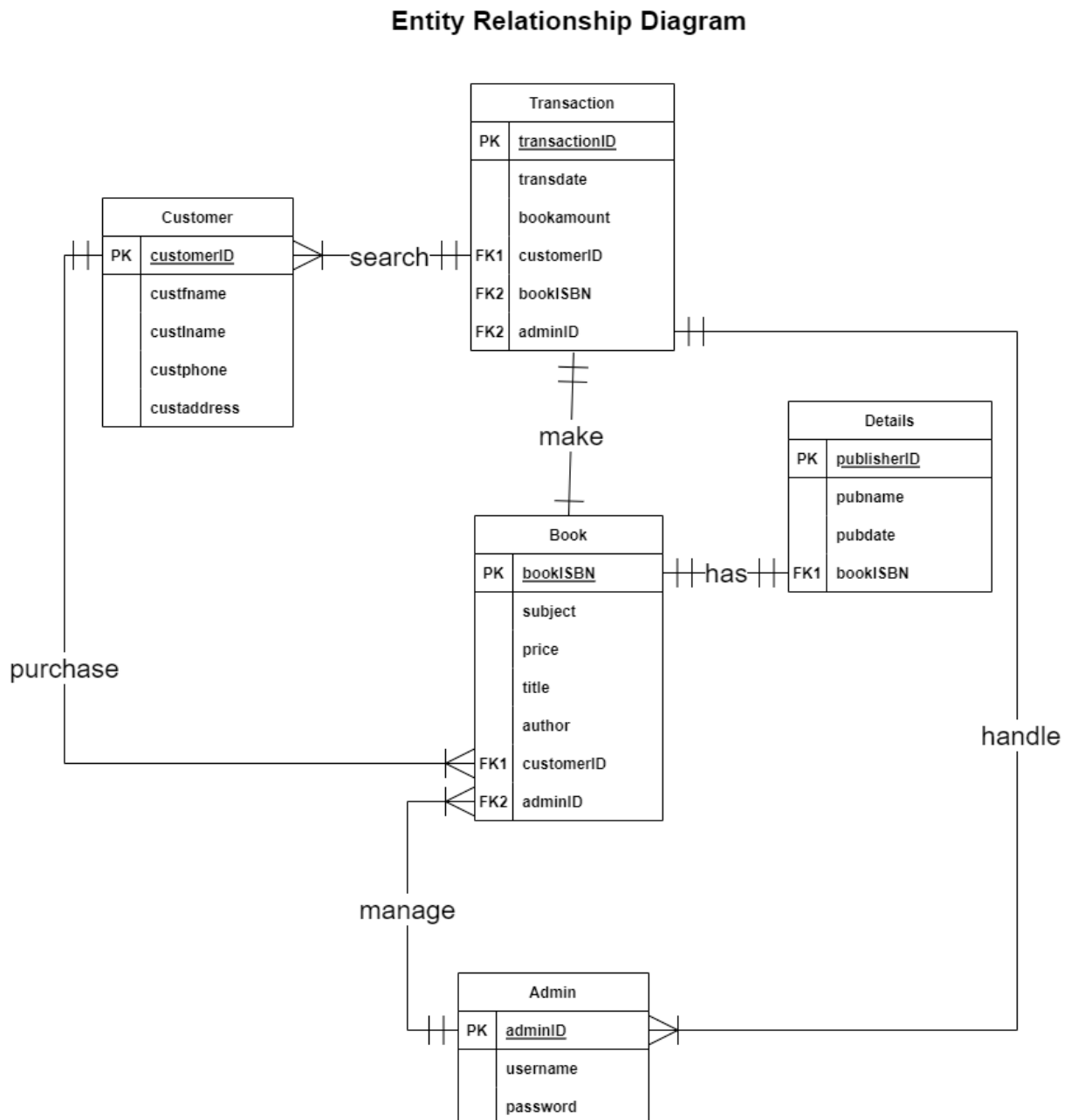**Flow Chart (Customer):**

Customer

BUSSINESS RULES

1. Admin has unique ID and has attributes such as username and password.

2. A customer can perform only one transaction.

3. Customer will have fname, lname, phone, address as attributes with unique ID as primary key.

4. Each book will have book ISBN as primary key.

5. The system will be able to read ISBN from the books. The attributes are subject, price, title, author, publisher and year.

6. Book has further book's details that has publisher ID as the primary key along with attributes such as publisher name and published date.

7. Transaction ID will be primary key for transaction entity with transaction name and transaction date as attributes.

8. A book transaction can be done by using only one transaction.

9. An admin can manage one or many books but a book can only manage by an admin.

DATA MODEL

Entity Relationship Diagram (ERD):

DATA DICTIONARY

Table Name:tblAdmin

COLUMN NAME	DATA TYPE	NULLABLE	DEFAULT	PRIMARY KEY
adminID(PK)	VARCHAR2(12)	No	-	1
username	VARCHAR2(50)	No	-	-
password	VARCHAR2(15)	No	-	-

Table Name: tblCustomer

COLUMN NAME	DATA TYPE	NULLABLE	DEFAULT	PRIMARY KEY
customerID (PK)	VARCHAR2(12)	No	-	1
custfname	VARCHAR2(50)	No	-	-
custlname	VARCHAR2(50)	No	-	-
custphone	VARCHAR2(10)	No	-	-
custaddress	VARCHAR2(75)	No	-	-

Table Name: tblBook

COLUMN NAME	DATA TYPE	NULLABLE	DEFAULT	PRIMARY KEY
bookISBN (PK)	VARCHAR2(10)	No	-	1
subject	VARCHAR2(30)	No	-	-
price	VARCHAR2(30)	No	-	-
title	VARCHAR2(30)	No	-	-
author	VARCHAR2(50)	No	-	-
customerID (FK)	VARCHAR2(12)	No	-	1
adminID(FK)	VARCHAR2(12)	No	-	1

Table Name: tblTransaction

COLUMN NAME	DATA TYPE	NULLABLE	DEFAULT	PRIMARY KEY
transactionID (PK)	VARCHAR2(12)	No	-	1
transaction_date	DATE	No	-	-
customerID (FK)	VARCHAR2(50)	No	-	-
adminID (FK)	VARCHAR2(50)	No	-	-
customerID (FK)	VARCHAR2(12)	No	-	1
adminID(FK)	VARCHAR2(12)	No	-	1
bookISBN (PK)	VARCHAR2(10)	No	-	1

Table Name: tblDetails

COLUMN NAME	DATA TYPE	NULLABLE	DEFAULT	PRIMARY KEY
publisherID (PK)	VARCHAR2(12)	No	-	1
pubname	VARCHAR2(50)	No	-	-
pubdate	VARCHAR2(50)	No	-	-
bookISBN (PK)	VARCHAR2(10)	No	-	1

INPUT/OUTPUT DESIGN

Main:

WELCOME TO BOOKSHOP MANAGEMENT SYSTSEM

```
1. ADMIN
2. CUSTOMER
3. RXIT
```

Admin :

*********** ADMINISTRATOR LOGIN **************

```
1. ENTER ADMIN ID:
2. ENTER USERNAME:
3. ENTER PASSWORD:
4. EXIT
```

```
ADMIN HAS SUSUCCESSFULLY LOGIN!!
```

Admin Menu:

************ ADMINISTRATOR MENU **************

```
1. ADD BOOK
2. DELETE BOOK
3. VIEW BOOK'S DETAILS
4. UPDATE PRICE
5. CALCULATE PRICE
6. EXIT
```

Add book:

************ ADDING BOOK **************

```
1. ENTER ISBN:
2. ENTER SUBJECT:
3. ENTER PRICE:
4. ENTER TITLE:
5. ENTER AUTHOR:
6. EXIT
```

```
BOOK HAS SUCCESSFULLY ADDED!!
```

Delete book:

************ DELETING BOOK **************

```
1. ENTER ISBN:
2. ENTER SUBJECT:
3. ENTER PRICE:
4. ENTER TITLE:
5. ENTER AUTHOR:
6. EXIT


 BOOK HAS SUCCESSFULLY DELETED!!
```

View book's details:

************ VIEW BOOK'S DETAILS **************

```
1. ENTER ISBN:
2. ENTER SUBJECT:
3. ENTER PRICE:
4. ENTER TITLE:
5. ENTER AUTHOR:
6. EXIT

BOOK'S DETAILS IS SUCCESSFULLY VIEWED!!

1. PUBLISHER ID:
```

```
                                 2. PUBLISHER NAME:
                                 3. PUBLISHED DATE:
```

Admin:

************ UPDATE PRICE **************


```
                                 1. ENTER ISBN:
                                 2. ENTER SUBJECT:
                                 3. ENTER PRICE:
                                 4. ENTER TITLE:
                                 5. ENTER AUTHOR:
                                 6. EXIT


                                 PRICE IS SUCCESSFULLY UPDATED!!
```

Admin:

************ CALCULATE PRICE **************

```
    1. ENTER ADMIN ID:
    2. ENTER CUSTOMER ID:
    3. ENTER TRANSACTION ID:
    4. ENTER TRANSACTION DATE:
    5. ENTER BOOK AMOUNT:
    6. ENTER PRICE:
    7. EXIT


PRICE IS SUCCESSFULLY CALCULATED!!


    1. TRANSACTION ID:
    2. BOOK AMOUNT:
    3. PRICE:
    4. TOTAL SALE:
```

Customer:

************ CUSTOMER MENU **************

```
    1. PURCHASE BOOK
    2. SEARCH TRANSACTION
    3. EXIT
```

Customer:

************ PURCHASE BOOK **************

```
1.    ENTER CUSTOMER ID:
2.    ENTER FIRST NAME:
3.    ENTER LAST NAME:
4.    ENTER PHONE:
5.    ENTER ADDRESS:
6.    ENTER ISBN:
7.    ENTER BOOK AMOUNT:
8.    EXIT


BOOK IS SUCCESSFULLY PURCHASED!!


  1. CUSTOMER ID:
  2. CUSTOMER NAME:
  3. ISBN:
  4. BOOK AMOUNT:
  5. TOTAL PRICE:
```

Customer:

************ SEARCHING TRANSACTION **************

```
1.    ENTER TRANSACTION ID:
2.    ENTER ISBN:
3.    ENTER CUSTOMER ID:
4.    ENTER ADMIN ID:
5.    EXIT


TRANSACTION IS SUCCESSFULLY SEARCHED!!

   1. TRANSACTION ID:
   2. CUSTOMER ID:
   3. TRANSACTION DATE:
   4. BOOK AMOUNT:
   5. TOTAL PRICE:
```