11. We need to develop software for automating various activities of a small book shop.

From the discussion with the owner of the book shop, the following user

requirements have been arrived at:

Book-shop Automation Software (BAS)

BAS should help the customers query whether a books is in stock. The users can

query the availability of a book either by using the book title or by using the name of

the author. If the book is not currently being sold by the book-shop, then the

customer is asked to enter full details of the book for procurement of the book in

future. If a book is in stock, the query for the book is used to increment a request

field for the book. The manager can periodically view the request field of the books

to arrive at a rough estimate regarding the current demand for different books. BAS

should maintain the price of various books. As soon as a customer selected a book

for purchase, the sales clerk would enter the ISBN number of the book. BAS should

up to the stock and generate the sales receipt for the book. BAS should update the

stock and generate the sales receipt for the book. BAS should generate sales statistics

(viz., book name, publisher, ISBN number, number of copies sold, and the sales

revenue) for any period. The sales statistics will help the owner to the exact business

Case Study Collection-Dasharathraj Shetty, Faculty, Dept. of CSE

Source: Rajib Mall and Other Books

Case Study Collection-Dasharathraj Shetty, Faculty, Dept. of CSE

Source: Rajib Mall and Other Books Page 8

done over any period of time and also to determine inventory level required for

various books. The inventory level required for a book is equal to the number of

copies of the book sold over a period of two weeks multiplied by the available

number of days it takes to procure the book from its publisher. Every day the book

shop owner would give a command for the BAS to print the books which have fallen

below the threshold and the number of copies to be procured along with full address

of the publisher.

Statistics(b\_id,availability,price)

Customer(c\_id,c\_name,p\_no,address)

Query(c\_id,b\_id)

Book(b\_id,b\_name,author)