Database Management Systems (20CE402)

“Grocery Management System”

Under the subject

‘ Database Management Systems

[20CE 402]’

Submitted By

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1. Category:

"Grocery Management System"

2. Purpose :

The purpose of this document is to present a detailed description of the Grocery Management System. It will explain the purpose and features of the software , the interfaces of the software, what the software will do, the constraints under which it must operates and how the software will react to external stimuli. This document is intended for both the end users and the developers of the software.

3. Scope :

This document covers the requirements for the Grocery Management System. This software will provide a graphical environment in which the users of the system will be able to perform various operations that are associated with storing , updating and retrieving Product Information. The purpose of this is to guide in selecting design that will be able to accommodate the full-scale application. This system will capture information about customer's personal details products and their quantities, Storing updating and retrieving in a fast and accurate way.

4. Introduction :

Grocery management has become an important factor in the modern business field. This
system should help the businessmen to streamline the administrative task and provide real-time
access to the data. Building this system in a standalone application interface will further help
the ease of accessibility through the provided portal. The study findings enable the definition of the
project problem statement, its objectives, scopes and advantages of the inventory management
system.
The Grocery Management System has to handle records for a number of products and
maintenance was difficult. Though it used an information system, it was totally manual. Hence there
is a need to upgrade the system with a computer-based information system.

5. Software tools :

Software Interfaces involved:
Front End: Java AWT
Back End: MySQL 5.1.36

Converting ERD to Tables -

ADMIN:-

Attribute	DataType	Constraint
adminid	Int	Primary Key
adminname	varchar(100)	Not null
adminphno	dec(10)	unique
password	varchar(15)	not null
email	varchar(30)	not null

PRODUCT

Attribute	DataType	Constraint
pid	int	primary key
pname	varchar(100)	not null
pbrand	varchar(20)	not null
pprice	int	Not null
pwt	int	Not Null
cid	int	FOREIGN KEY

CUSTOMER

Attribute	DataType	Constraint
custid	int	primary key

custpassword	varchar(15)	Not null
custemail	varchar(20)	-
custphone	dec(10)	-
custname	varchar(100)	not null

ORDER

Attribute	DataType	Constraint
orderid	int	Primary Key
shid	int	FOREIGN KEY
custid	int	FOREIGN KEY
trdate	date	-
total	int	-

CATEGORY

Attribute	DataType	Constraint
cid	int	primary key
cname	int	primary key

STOCK

Attribute	DataType	Constraint
shid	int	FOREIGN KEY,primary key
pid	int	primary key,foreign key
quantity	int	-

SHOP

Attribute	DataType	Constraint
shid	int	primary key
addresss	varchar(100)	unique
adminid	int	FOREIGN KEY

EMPLOYEE

Attribute	DataType	Constraint
empid	int	primary key
empname	varchar(100)	not null
empphno	dec(10)	not null
empemail	varchar(30)	-
emppost	varchar(40)	-
salary	int	-
shid	int	FOREIGN KEY

Normalization :

1NF =

- Table should not contain any multi-valued attributes
- All table are in 1NF because there is no multivalued attribute

2NF =
- Tables must be in 1NF
- All the Non-prime attributes should be fully functionally dependent on the candidate key.
- All tables are in 2NF because all the Non-prime attributes should be fully functionally dependent on the candidate key.

adminid—>adminname ,adminphno,password,email
shid–> addresss , adminid
empid→ empname ,empphno ,empemail ,emppost , salary, shid
custid→custpassword,custemail, custphone ,custname
orderid→ shid , custid ,trdate,total
pid →pname ,pwt ,pbrand ,pprice ,cid
cid → cname
(shid,pid)--> quantity

3NF =
- Tables must be in 3NF
- There should be no transitive dependency in table.