**Online Shopping Management System**

DBMS Exp (1)

SE-IT

Batch A

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\*Project Title:

**Online Shopping Management System**

\*Problem statement:

In online shopping, the products are made available for customers. Their pictures and details are made available on site. Customer, on the basis of it purchases the product. Then they are delivered to customers.

**CASE STUDY**

**Aim:** To create an online shopping management system.

In today’s world the web is a place where you can get solutions to anything. Online shopping is also one such useful tool in a person’s life. They can order whatever they want in a few clicks, and its done. It has made shopping much easier than before. Customers just have to create an account, search for products, shop for them, make payment and its done.

**Scope**:

We will be designing an online shopping system ProductEasy, where customer can buy products. A customer first creates an account on the site. Then he/she can visit the site for different products. The site contains categories of products such as books, electronics and clothes. For each product details like product id, manufacturer, price, rating, stock will be shown on clicking the product. The customer will be able to search products by selecting category. Customer can modify the cart. He/she can place order and choose to buy products using e wallet or pay on delivery. Order history of all the customers will be present in the database. Profile and e-wallet can be updated by customer

**Assumptions**:

All the customers have an account on the site. All sales will be recorded in the data base. All customers have some previous order history. Everything is stored in database already.

**The Tables required along with their attributes and constraints are listed below:**

1. Products table:

It will be represented with product\_id, manufacturing\_company, product\_name, rating, product\_price, stock. Product\_id will be unique and not null for each product. IS A specialization is used to denote the catergories of products ( books, electronics and clothes).

1. Books will have attributes author, ISBN and title.
2. Electronics will have warranty period.
3. Clothes have property color and material of cloth.

Rating should be between 1 to 10, 1 for lowest and 10 for highest.

1. Customer table:

It will have customer\_id as primary key. The email, date of birth, gender, e-wallet, name, address, phone number, gender will be stored. Address is a composite attribute, will contain plot number, city, street and pincode. Name will have first name, middle name and last name. Phone no is a multivalued attribute. E-wallet should not be empty at any time (i.e NOT NULL constraint)

1. Account:

It will have login, password and customer\_id. Customer\_id will be foreign key from Customer. Login will be primary key for Account table. One account will be linked only to a single customer.

1. Order\_History:

It will contain the previous order history of the customer. It will have attributes product\_name, product\_price, product\_id, customer\_id, history\_ID, date\_of\_order. history\_id will be primary key. Product\_ID will be foreign key from Products. The order history of the customer is stored in the database and can be retrieved at any time.

1. Cart:

It will have the products, user has selected and user can modify the cart. The cart will be used for placing orders. Cart contains product\_name, product\_price,quantity, product\_id and customer\_id, . Product\_id will be foreign key from Products. Since each customer will have one cart, hence the customer\_id from Customers will act as a primary key for this table. Products from cart may be placed for ordering.

1. Order:

This table will contain the order to be placed and have a primary key called order\_id. This table will also contain product\_name, product\_id, customer\_id, product\_price and date\_of\_order. The customer\_id will be a foreign key from table Customers, and product\_id will be foreign key from Products. The customer will require to make payment to go with the order.

1. Payment:

It will be used for managing the payment for the order placed. Transcation\_ID is a discriminator. Apart from that, customer can select mode of payment as e-wallet or pay on delivery. Amount and date of payment(date-time) will also be stored. The customer\_id and order\_id will also be present and will be foreign keys from Customer and Orders respectively.

**ER Diagram:**

