Project Title: - Shopping Mall Database Management System.

Entities: -

Product, Inventory.

Shop, Shop Employee, Shop Manager, Accountant, Sales Person, Shop Cleaning Crew.

Mall Employee, Mall Manager, Advertisement Officer, Event Organizer, Security Guard, Security Chief, Mall Cleaning Crew.

Customer, Customer Online Account, Customer Shopping History, Bill.

Parking Lot, Parked Vehicles, Parking Bill.

Attributes of the various entities: -

Product: - Product ID, Product Name, Type, Shop No., Quantity, Manufacturer, Manufacturing Date, Expiry Date.

Inventory: - Inventory No., Type, Maximum Capacity, Current Occupancy, Product ID, Product Name.

Shop: - Shop No., Name, Floor No., Type.

Shop Employee: - Employee ID, Name, Age, Contacts, Address, Shop No., Year of Joining, Year of Leaving.

Shop Manager: - Manager ID, Name.

Accountant: - ID, Name.

Sales Person: - ID, Name.

Shop Cleaning Crew: - ID, Name.

Mall Employee: - Employee ID, Name, Age, Contacts, Address, Year of Joining, Year of Leaving.

Mall Manager: - Manager ID, Name.

Advertisement Officer: - ID, Name.

Event Organizer: - ID, Name.

Security Guard: - ID, Name.

Security Chief: - ID, Name.

Cleaning Crew: - ID, Name.

Customer: - Customer No., Name, Contacts, Address.

Customer Online Account: - Name, Username, Password, Mobile No.

Customer Shopping History: - Name, Product ID, Product Name, Purchase Date, Payment Mode.

Bill: - Bill No., Customer Name, Amount, Payment Mode, Payment Date, Payment Time.

Parking Lot: - Parking Lot No., Type, Maximum Capacity, Current Occupancy.

Parked Vehicle: - Vehicle No., Customer Name, Time of Entry, Time of Exit.

Parking Bill: - Bill No., Customer Name, Vehicle No., Amount, Payment Mode, Payment Date, Payment Time.

Entities' Relation: -

[Product] is in an [Inventory].

[Product] is in a [Shop].

[Shop] has [Shop Employee].

[Shop Employee] are [Shop Manager, Accountant, Sales Person, Shop Cleaning Crew].

[Shop] gets [Customer].

[Mall Employee] are [Mall Manager, Advertisement Officer, Event Organizer, Security Guard, Security Chief, Mall Cleaning Crew].

[Customer] has [Customer Online Account].

[Customer] has [Customer Shopping History].

[Customer] purchases [Product].

[Customer] pays [Bill].

[Customer] has [Parked Vehicles].

[Parking Lot] has [Parking Vehicles].

[Customer] pays [Parking Bill].

Relational Database Design: –

PRODUCT

Product ID	Product Name	Type	Shop No.	Manufacturer	Manufacturing Date	Expiry Date

INVENTORY

Inventory No.	Type	Product Name	Product ID	Maximum Capacity	Current Capacity

SHOP

Shop No.	Name	Floor No.	Type

SHOP EMPLOYEE

Employee ID	Name	Age	Contacts	Address	Shop No.	Year of Joining	Year of Leaving

SHOP MANAGER

Manager ID	Name

ACCOUNTANT

ID	Name

SALES PERSON

ID	Name

SHOP CLEANING CREW

ID	Name

EMPLOYEE

Employee ID	Name	Age	Address	Contacts	Year of Joining	Year of Leaving

MALL MANAGER

Manager ID	Name

ADVERTISEMENT OFFICER

ID	Name

EVENT ORGANIZER

ID	Name

SECURITY GUARD

ID	Name

SECURITY CHIEF

ID	Name

CUSTOMER

Customer No.	Name	Contacts	Address

CUSTOMER ONLINE ACCOUNT

Name	Username	Password	Mobile No.

CUSTOMER SHOPPING HISTORY

Customer No.	Customer Name	Product ID	Product Name	Purchase Date	Payment Mode

BILL

Bill No.	Customer No.	Customer Name	Amount	Payment Mode	Payment Date	Payment Time

PARKING LOT

Parking Lot No.	Type	Maximum Capacity	Current Occupancy

PARKED VEHICLES

Customer Name	Parking Lot No.	Vehicle No.	Time of Entry	Time Of Exit

PARKING BILL

Bill No.	Customer Name	Vehicle No.	Amount	Payment Mode	Payment Date	Payment Time