E-COMMERCE MANAGEMENT SYSTEM

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Overview:

In this project, we will create a database for an e-commerce company that deals with inventory management and product organization. The main goal is to simplify and optimize daily tasks so that e-commerce companies may successfully make data-driven decisions. Key datasets such as transactional data, real-time inventory status, supplier information, and customer profiles will be meticulously managed by the system. The overall goal of this e-commerce management system's technical architecture is to offer a high-performance, scalable, and dependable solution for managing various e-commerce operations.

Explanation:

No.	Entity	Explanation
1.	Consumer	Represents the customer or client who interacts with the business. Attributes include consumer ID (primary key), initial name, family name, email, contact number, postal address, consumer status and the date they started as a consumer.
2.	Item	Defines the products offered, with attributes such as item ID, name, classification, cost, and detailed description.
3.	Invoice	A financial document associated with transactions and orders, including billing details, the address to which the bill is delivered, the transaction ID, deadline date for payment, and the related order ID.
4.	Transaction Information	Keeps track of the financial transactions made by consumers, including transaction ID, amount, any rebates, the billing ID related to the transaction, the method, and the status of the transaction.
5.	Delivery	Details the logistics of delivering an order, with attributes for delivery ID (primary key), departure ID, arrival and postal dates, status, method, and the related order ID.
6.	Order	Information on orders placed by consumers, order ID, date, billing and consumer IDs, and associated input and delivery IDs.

7.	Catalog	Contains a list of items available, classified by catalog ID (primary key), associated classification, stock levels, cost, and vendor information.
8.	Vendor	Suppliers of items with attributes including vendor ID, name, email, contact number, and address.
9.	Classification	Categorizes items, with attributes such as classification ID (primary key) and name.
10.	Utilized Item	An associative entity that tracks the usage of items, with attributes for the date utilized, the vendor involved, catalog ID, and the date of the item.
11.	Order line	A specific line item within an order, with attributes including order ID, the specific item ID, and the quantity ordered.
12.	Input	An associative entity which represents any input or feedback provided by the consumer, with attributes such as input ID, date of input, type, and related order and consumer IDs.

E-COMMERCE MANAGEMENT SYSTEM

DATA MODEL

Consumer

Consumer_ID
Initial_Name
Family_Name
Email_Address
Contact_Number
Postal_Address
Consumer_Status
Start_Date

Order Line

Order_ID
Item_ID
Order_QTY

Paid By

Places

has

Pays

Transaction Information

Transaction_ID
Amount
Rebate
Billing_ID
Transaction_Method
Transaction_Status

Invoice

Billing_ID
Billing_Date
Delivery_Address
Transaction_ID
Deadline_Date
Order_ID

Item

Item_ID
Item_Name
Classification_ID
Cost
Detail

Classification

Classification_ID
Classification_Name

contains

contains

has

stores in

Provides

contains

Is placed by

stores

contains

Input

Input_id
Input_Date
Input_Type
Order_ID
Consumer_ID

Is billed for

Order

Order_ID
Order_Date
Item_ID
Billing_ID
Consumer_ID
Input_ID
Delivery_ID

contains

Catalog

Catalog_ID
Catalog_Classification
Catalog_ID
Catalog_Stock_Cost
Catalog_Location
Recieved_Date
Vedor_ID

has

Utilized Item

Utilized_Date
Vendor_ID
Inventory_ID
Item_Date

Is contained in

is supplied by

is provided for

contains

supplied

Delivery

Delivery_ID
Departure_ID
Arrival_Date
Postal_Address
Delivery_Status
Delivery_Method
Order_ID

contains

contains

Vendor

Vendor_ID
Vendor_Name
Email_Address
Contact_Number
Postal_Addres