Sterling Homes Database design

(Case Study)

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Table of contents :

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Sharandeep Singh

Introduction :

Sterling Homes, is a real estate company in Calgary with over 70 years of Experience. Which is providing a high-quality residential properties for individuals and families. They offer a range of housing options, from single family homes, and apartments to suit different preferences and budget. Sterling Homes focuses on customer satisfaction and detail and strives to create comfortable and stylish residences for its customers.

Mission :

1. Providing real-time insights and seamless integration to empower businesses for growth and focus on custmomer satisfaction by providing exceptional service and attention to detail.

Objectives :

1. Develop a centralized inventory management system and promotes a culture of continuous learning and development among our team members to ensure quality services.

2. Enhance accuracy and efficiency in sales recording.

3. Increase market visibility and brand awareness through targeted marketing strategies and partnerships.

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Subjects :

1. Stockouts : When a particular inventory item is out of stock.

2. Overstocking : When you order more inventory then you can use it.

3. Centralized system : Centralized system is one in which all decision making and control resides in one central authority and entity.

4. Record accuracy and Decision making: When we create an accurate record, we make a good decision.

List of Tables :

1. Suppliers
2. Inventory
3. Customers
4. Employees
5. Sales
6. Property

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Name	Type	Description
1. Suppliers	Data	A table of suppliers includes information such as supplier ID, name, contact details, and products/services provided for effective vendor management.
2. Inventory	Data	Maintains a list of available properties in Sterling Homes inventory with details on property status, availability, pricing and discounts.
3. Customers	Data	Stores details of customers interested in purchasing such as customer ID, name, contact, and transaction history.
4. Employees	Data	The employees table in the database Sterling Homes, essential employee information, including employee ID, name, department, contact details etc.
5. Sales	Data	The sales contains data on transaction, including details such as customer information, product sold, quantity, price, and date of purchase.
6. Property	Data	Contains information about the residential properties offered by Sterling Homes, including property ID, address, size, number of bedrooms and bathroomes and price.

List of attributes :

1. Suppliers: First Name, Last Name, Address, City, Postal code, Phone, email address.
2. Inventory: Inventory ID, product name, quality, unit price, date received.
3. Customers: Customer ID, customer name, contact information, address.
4. Employees: Employee ID, employee name, employee role, contact information, address.
5. Sales: Sales ID, sales date, total amount.
6. Property: Property ID, address, status, listing price, location.

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Database design of Sterling Homes

Tables :

```
Suppliers        int. PK
Suppliers id     varchar
Supplier name    varchar
Contact info     varchar
Address          varchar
```

```
Inventory
Inventory id    PK
Product name Data
Unit price
Supplier id    FK
```

```
Customers
Customer   ID    interger PK
Customer name    varchar
Contact info     varchar
Address          varchar
```

```
Sales

Customer id       int FK

Sale id           int PK

Sale date         date

Property id       int FK

Total amount      decimal

Employee id       int FK
```

```
Employees           PK
employee name    varchar
employee role    varchar
contact info     varchar
hire date           date
```

```
Property
Property id     int PK
Address         varchar
Status          varchar
Listing price   decimal
```

Entity Relationship :

> ➢ Sales and Employees (One-to-Many)-an employee can be associated with multiple sales transactions.
> ➢ Inventory and Employees (Many-to-Many) - an employee can manage multiple inventory items.
> ➢ Inventory and Suppliers (One-to-Many) -A supplier can supply multiple inventory items.
> ➢ Sales and Customers (One-to-Many) -A customer can be associated with multiple sales transactions.
> ➢ Property and Sales (One-to-Many) - Each property record is unique and can have multiple sales records.

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Conclusion :

Implement a centralized inventory management system to prevent stock issues and streamline processes.

Enhance sales recording accuracy for better data tracking and decision-making.

These improvements will optimize operations and help Sterling Homes achieve its strategic goals efficiently.

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Thank you

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