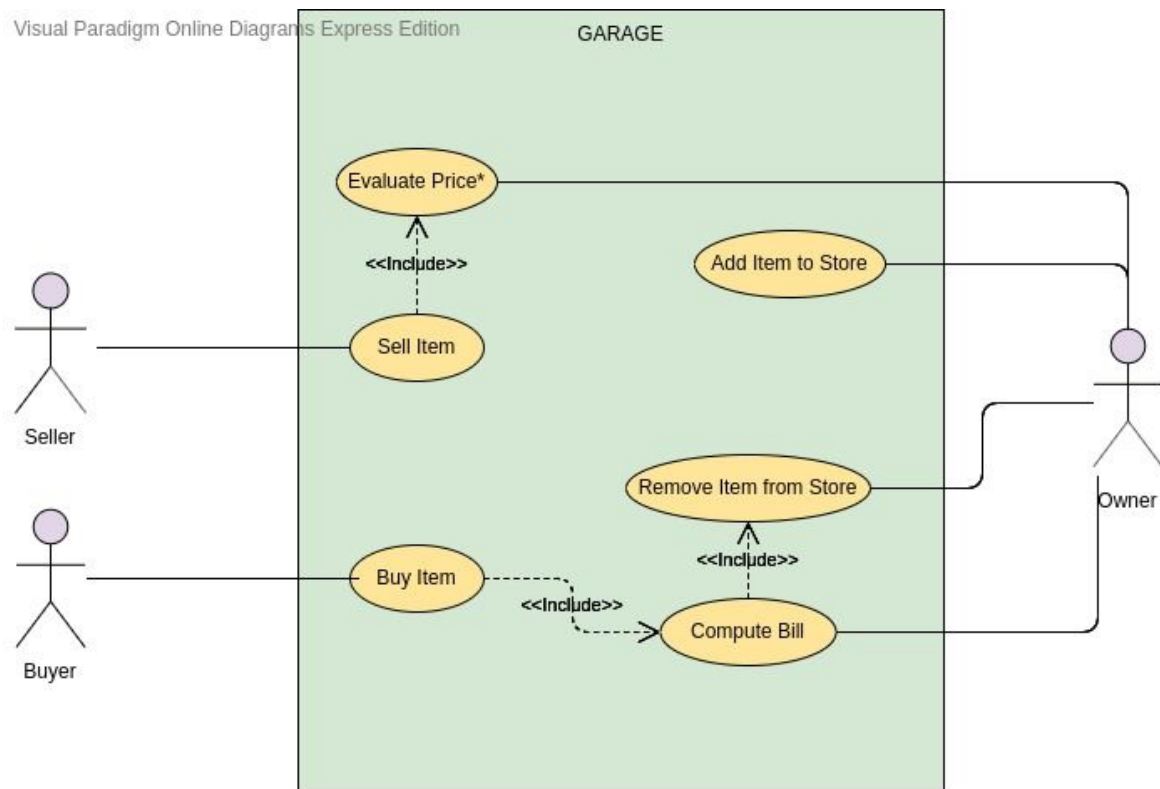# GARAGE

A mini database management system for an automobile store

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IMT2017017

Introduction

A mini database management system, for an automobile Garage, where a customer can buy any amount of items, as well as sell. The DBMS, maintains the quantity of items in stock and bills the items.

UML Diagram

GARAGE

Evaluate Price*

<<Include>>

Add Item to Store

Sell Item

Seller

Remove Item from Store

Owner

<<Include>>

Buy Item

<<Include>>

Compute Bill

Buyer

* = To be implemented in later version

Class Diagram

Garage
- Garage_id
- Garage_location
- Garage_name

Item
- Item_Id
- Item name
- chategory
- MRP
- entry_date
- expiry_date
- vehicle_type
- part_number

Bill
- Bill_no,
- Bill_amount
- Customer_id
- Bill_date
- Bill_items

Bill Item
- Dis_percentage

Owner
- Owner_id
- Owner_name
- Owner_mobile
- Owner_email
- Cust_password

Seller
- Item
- Expected_price

Customer
- Customer_id
- Cust_name
- Cust_mobile
- Cust_email
- Cust_password

Buyer

m   n   m   n   m   m
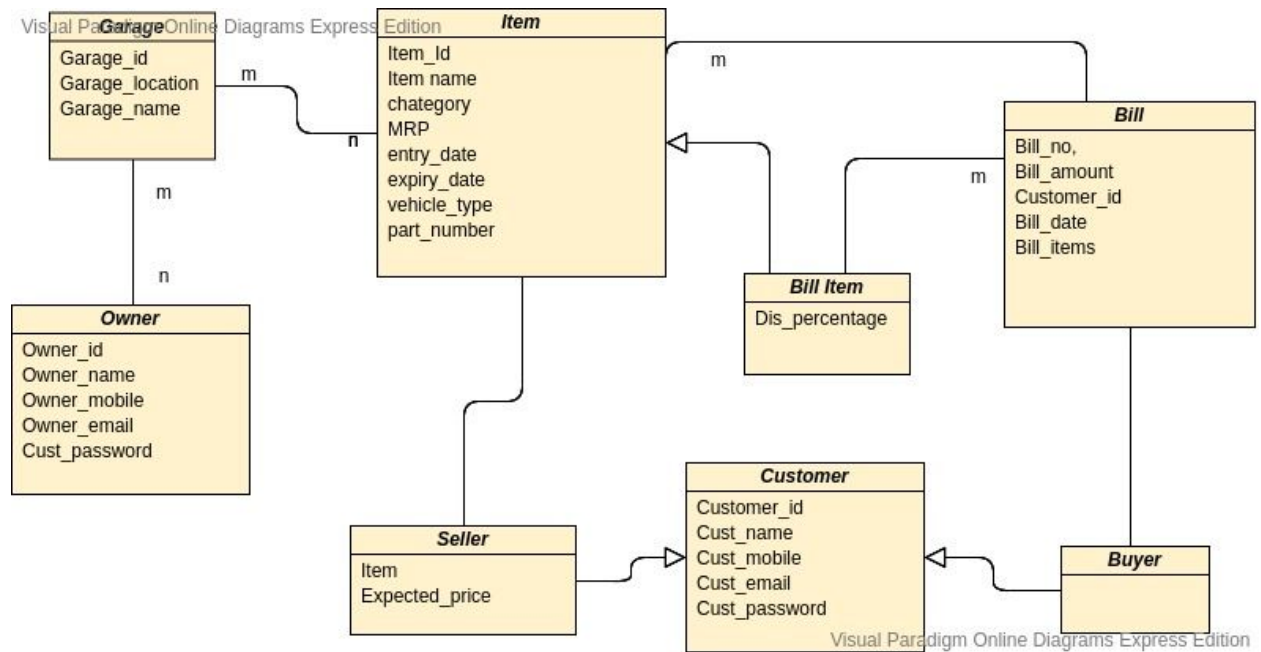
Table Description

dbdesigner.net

Owner

🔑 Owner_id	integer
Owner_name	string
Owner_mobile	integer
Owner_mail	text
Owner_password	text

Customer

🔑 Cust_id	integer
Cust_name	text
Cust_mobile	integer
cust_email	text
Cust_password	text

Garage

🔑 Garage_Id	integer
Garage_Location	text
Garage_name	string
Owner_id	integer

Item

🔑 Item_id	integer
Item_name	string
category	string
MRP	float
vehicle_type	text
Part_no	decimal
bill_no	binary

Bill

🔑 Bill_no	binary
Bill_amount	float
Customer_id	integer
Bill_date	date
Bill_items	text

Use Cases

Use case Id: 01
Use case Name: Add item
Use Case Description: Add an item to the stock of the garage.
Actors: Owner
Flow:

> **Normal Flow:** The owner calls the method to add a new item to the stock.
> **Exceptional Flow:** If the owner is not authenticated then the item won't be removed.
> **Alternate Flow:** If a customer wants to sell an item, and the item is approved, the method is called.

Use case Id: 02
Use case Name: Remove Item
Use case description: Remove the item from the stock of the garage.
Actors: Owner
Flow:

> **Normal Flow:** The owner can remove an item
> **Exceptional Flow:** If the owner is not authenticated then the item won't be removed.
> **Alternate Flow:** When a customer buys an item, the product is automatically removed from the stock.

Use case Id: 03
Use case Name: Buy Item
Use case description: Add an item to the card/Bill to be bought.
Actors: Buyer
Flow:

> **Normal Flow:** The buyer selects an item and adds it to the billing list.
> **Exceptional Flow:** If item name is not in the table, it won't be added to the cart.

Use case id: 04
Use case Name: Sell Item
Use case description: Propose an item to be sold to the garage.
Actors: Seller
Flow:

      Normal Flow: The seller proposes an item to be sold, with an expected price, which may be accepted or rejected by the owner.

      Exceptional Flow: If the item is not above the threshold price, it won't be added.

Use case Id: 05
Use case Name: Compute Bill
Use case Description: Compute the total amount of items, after applying discounts if applicable.
Actors: Buyer
Flow:

      Normal Flow: Method called on buyer's confirmation that s/he is done.

      Exceptional Flow: If bill number is not present, then error will be thrown.

ScreenShots

Add Item to store

```
Connecting to database...
Creating statement...
Please select one of the following oprions:
1, to add an item to the store.
2, to remove an item from the store.
3, to sell an item.
4, to add an item to the cart.
5, to compute your bill.
6, exit the store.
1
Item id
125
Item name
horn
Item Category
access
Item MRP
200
Part number
5
Item Vehicle Type
all
Please enter you owner id to authenticate.
1234
select owner_id from owner where owner_id = 1234;
Please select one of the following oprions:
1, to add an item to the store.
2, to remove an item from the store.
3, to sell an item.
4, to add an item to the cart.
5, to compute your bill.
6, exit the store.
```

Remove Item from store

```
Connecting to database...
Creating statement...
Please select one of the following oprions:
1, to add an item to the store.
2, to remove an item from the store.
3, to sell an item.
4, to add an item to the cart.
5, to compute your bill.
6, exit the store.
2
Item id
105
Please enter your owner id to authenticate.
1234
select owner_id from owner where owner_id = 1234;
select owner_id from owner where owner_id = 1234;
Please select one of the following oprions:
1, to add an item to the store.
2, to remove an item from the store.
3, to sell an item.
4, to add an item to the cart.
5, to compute your bill.
6, exit the store.
```

Buy Item

```
Connecting to database...
Creating statement...
Please select one of the following oprions:
1, to add an item to the store.
2, to remove an item from the store.
3, to sell an item.
4, to add an item to the cart.
5, to compute your bill.
6, exit the store.
4
Item name
mirror
Please enter your customer id.
1501
select cust_id from customer where cust_id = 1501;
select cust_id from customer where cust_id = 1501;
Please select one of the following oprions:
1, to add an item to the store.
2, to remove an item from the store.
3, to sell an item.
4, to add an item to the cart.
5, to compute your bill.
6, exit the store.
```

Sell Item

```
Connecting to database...
Creating statement...
Please select one of the following oprions:
1, to add an item to the store.
2, to remove an item from the store.
3, to sell an item.
4, to add an item to the cart.
5, to compute your bill.
6, exit the store.
3
Item id
150
Item name
brake
Item Category
wheel
Item MRP
300
Part number
6
Item Vehicle Type
car
Please enter your customer id to authenticate.
1501
select cust_id from customer where cust_id = 1501;
Please select one of the following oprions:
1, to add an item to the store.
2, to remove an item from the store.
3, to sell an item.
4, to add an item to the cart.
5, to compute your bill.
6, exit the store.
```

Compute Bill

```
Connecting to database...
Creating statement...
Please select one of the following oprions:
1, to add an item to the store.
2, to remove an item from the store.
3, to sell an item.
4, to add an item to the cart.
5, to compute your bill.
6, exit the store.
5
Enter Bill number:
1501
select * from item where bill_no = 1501;
Total : 1500
Please select one of the following oprions:
1, to add an item to the store.
2, to remove an item from the store.
3, to sell an item.
4, to add an item to the cart.
5, to compute your bill.
6, exit the store.
```