**Super Market**

**Case Summary:**

Design super market system which includes marketing of various products. Products are categorized under various categories like Electronics, Books, Sports, Garments, and Furniture etc. The system must produce bill (including offers) on various products purchased by customers. It should also keep track of stocks availability and placing orders if stock is not available. The system should also maintain customer history and accordingly add points to his/her card. There can be n number of billing counters and hence various users can have permission to bill for a customer’s purchase. Administrator is one who can add/delete users and/or add/delete product details.

Administrator will create login details whenever employee is added to the system. Employees must have permission to modify their details like contact number, address, password etc. Application must also provide a search option for customers which must search for specific products available under its respective categories. Customer should also be able to search by sorting according to price, stocks etc.

Application must maintain following details,

**Category:** Category must include

* Category id
* Category name.

Each Product must belong to a category.

**Product:** Product must include various details like

* Product\_id
* Product\_name
* Product\_Price
* Exp\_date
* Manufacture\_date
* Stock\_available

**Bill:** Bill must include,

* Bill\_number
* Bill\_amount
* Bill\_discounted\_amount
* Bill\_date

**Stock:** It should include details like,

* Product\_id
* Stock\_available

**Offers:** It should include details like

* Offer\_id
* Offer\_description

**Customer:** It should include details like

* Customer id
* Bill id
* points

**Role of employees:**

Following functionalities are provided to the employee of super market,

1. **Login:** Each employee has his/her own login id and password. Employee must log into the system to perform any customer transactions.
2. **Customer Card**: For each new customer allocate him a card number. Initial card must contain 0 points. For bill of thousand rupees, card should gain 10 points. If a card reaches 100 points, customer will be receiving additional 20 percent off on that shopping and points must be reset to 0.
3. **Customer Billing:** Create bills for customer purchase. Bills created should include for any discounts/offer for the day.

**Roles of Administrator:**

Following functionalities are provided to the administrator,

1. **Add/Delete employee:** Administrator can add or delete employees accordingly. He can also modify employee details and employee login as well.
2. **Add/Delete Products:** Administrator can add, modify or delete any product from the market.
3. **Place order for products:** Administrator can place orders for the products if stock is empty.

**Role of Customer:**

Following functionalities are provided to the customers,

1. **Search:** Find for a specific product based on various dimension of search like price, category, min-max, etc. Result of search must display basic product details like name, category, price, available stock.

**Limitations:**

* DATABASE is Limited.
* Real time transactions are out of scope.

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| --- | --- |
| Team | Technology |
| 1 | C++ STL |
| 2 | C++ SQLite+DesignPattern |
| 3 | C++ STL |
| 4 | C++ SQLite+DesignPattern |
| 5 | C+DS |
| 6 | C+DS |
| 7 | C+SQLite |