Assignment 11
Bakery Design

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Team 17

Table of Contents:

I. Requirements

Functional Requirements:
- The **owner** shall be able to construct an empty bakery.
- The **owner** shall be able to initialize the bakery from order and inventory files.
- The **owner** shall be able to add new customers to the database when placing an order.
- The **owner** shall be able to update customer information.
- The **owner** shall be able to add new orders for a customer.
- The **owner** shall be able to update orders.
- The **owner** shall be able to add new items to the inventory.
- The **owner** shall be able to update inventory items.
- The **owner** shall be able to view all information of a particular customer.
- The **owner** shall be able to view all orders by any customer.
- The **owner** shall be able to view all orders placed or received on a particular date.
- The **owner** shall be able to view all orders of a particular item.
- The **owner** shall be able to view all orders that are unpaid.
- The **owner** shall be able to view all items in the inventory.
- The system shall store customer contact information.
- The system shall store customer shipping information.
- The system shall track the number of purchases made by all customers.
- The system shall track the order information of all customers.
- The system shall give out or apply awards based on customer loyalty card totals.

Non-Functional Requirements:
- The **owner** shall be shall be able to view order and customer totals in an easy to read and understand way.
- The **owner** shall be able to view the inventory and individual customer info very quickly. (less than 2 seconds)

Domains:
- User Interface: Input module for updating customer information, displaying the inventory to the user, updating the store's inventory, and accessing customer information
- Customer Database: module for storing information about customers such as contact, billing, and order information
- Inventory: module contained the items available at the store

Relations:
- Interface: Interacts with employees, allows them to update the inventory, view all information in the customer database, and purchase available products listed in the inventory and stores all information from orders in the customer database.
- Customer Database: Receives customer information from the user interface. Contains information on customers and provides tools to help the boss view important stats about the data.
- Inventory: Recieves available items from the user interface. Contains a list of all available products and their respective prices.
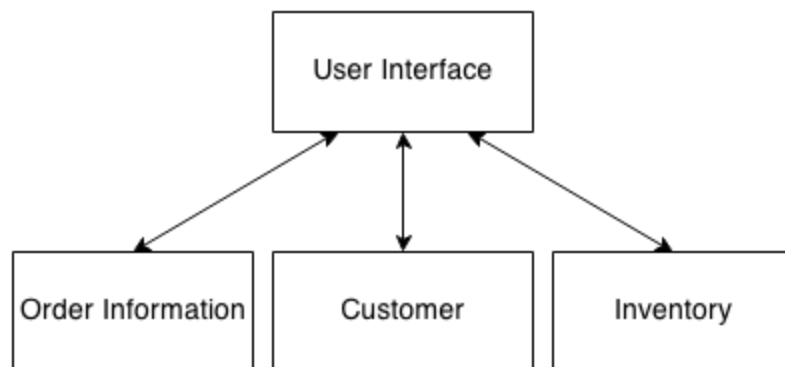
Constraints:
Customers cannot be added to the database without placing an order.
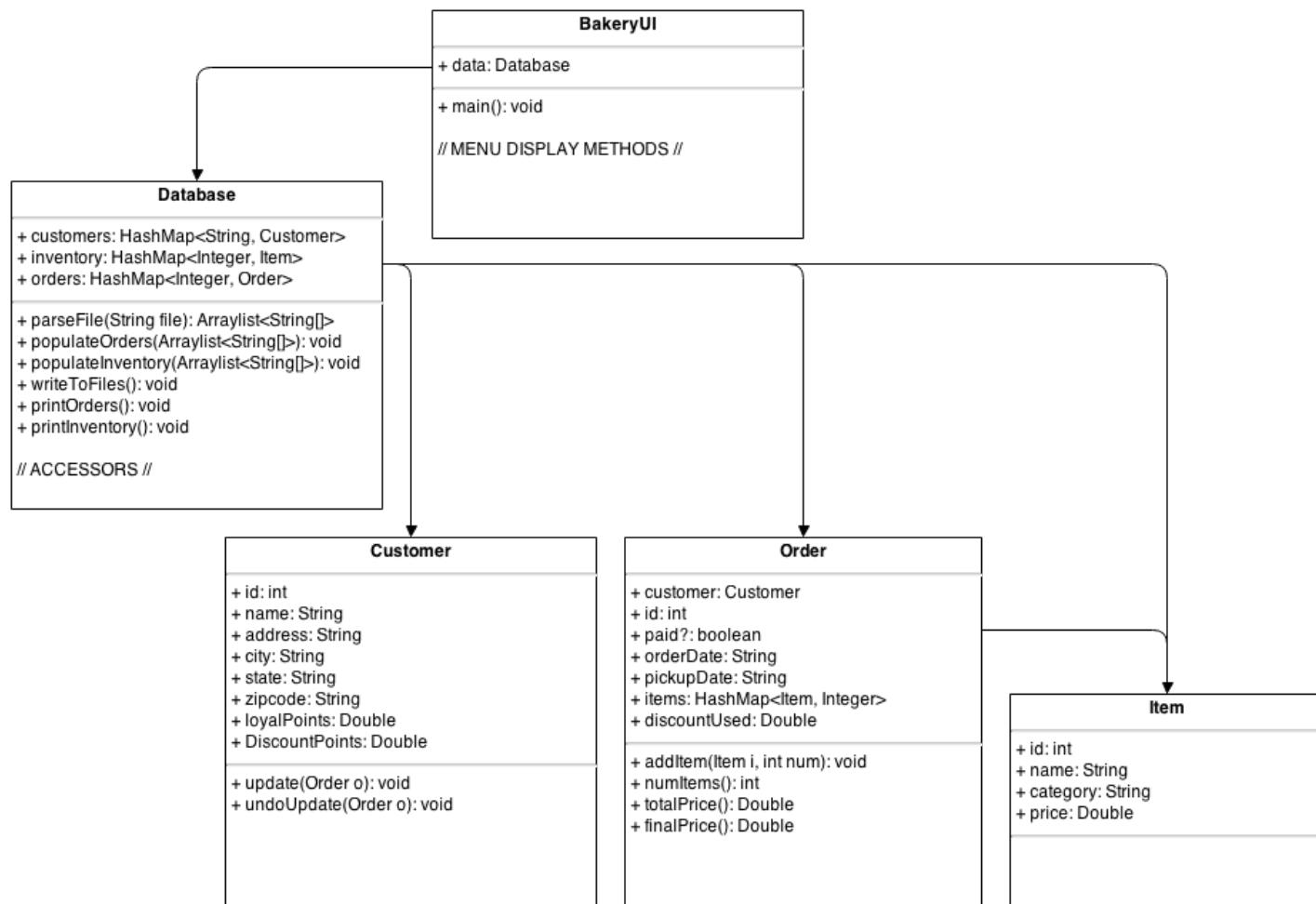Customers cannot purchase items not in the inventory.

II. Design:

Module Dependency Diagram

UML Diagram

III. Member Contributions:

Michael Hu:
- Requirements/Design
- Domains, Relations, Constraints
- Module Dependency Diagram

Will Enright:
- Requirements/Design
- Functional/Non-Functional Requirements
- UML Diagram