

- The system keeps track of the cafeteria's **Users, Wallet, Storage, Menu, Orders, & Comments**.
- The system maintains a **Digital Wallet** for every student. This is a closed system where students cannot add funds themselves. **Authorized Staff** are the only users permitted to credit a student's account via a manual "**Top-Up**" transaction (handling physical cash).
- The system records a history of **Transactions** (Credits/Debits). For every transaction, we record the date, amount, type, and resulting balance.
- The system manages a **Storage (Inventory)** facility.
 - Every **Menu Item** (e.g., "Cheese Burger") corresponds to a record in the Storage.
 - We track the **Current Quantity On Hand** and the **Last Restocked Date**.
 - Staff updates the Storage levels when new supply shipments arrive.
- The food catalog is organized into **Categories**. Each category has a unique name, and a category may contain several menu items.
- A **Student** may place **Orders**. This triggers a validation process:
 1. **Financial Check:** Does the student have enough balance?
 2. **Storage Check:** Is there enough **Quantity On Hand** in Storage?
 - If both checks pass, the cost is deducted from the Wallet, and the quantity is subtracted from Storage.
- **[WEAK ENTITY SPECIFICATION]** The system allows for **Order Comments**. An order may have several comments attached to it (e.g., instructions from the student or replies from the chef).
 - A Comment is considered a **Weak Entity**; it does not have a unique identity of its own. It is identified only by its relationship to a specific **Order** combined with a sequence number (or timestamp).
 - If an Order is deleted or canceled, all associated comments must effectively cease to exist for the system's purposes.

Cheat Sheet for the Designer

When they see "Weak Entity," they should draw the relationship like this:

1. **Double Rectangle** around the "Comments" entity.
2. **Double Diamond** for the relationship between Orders and Comments (often called "Has" or "Contains").
3. **Total Participation:** The Comments entity should have a double line connecting it to the relationship (every comment *must* belong to an order).
4. **Composite Key:** The Primary Key for the Comment table will likely be (OrderID, CommentID) or (OrderID, Timestamp).