1. Users (user_details)

- **Mandatory fields**
    - user_id (PK)
    - user_name
    - password
    - first_name
    - last_name
    - address
    - contact_number
    - user_role_role_id (FK → user_role.role_id)
- **Additional rules**
    - user_name must be unique

2. Roles (user_role)

- **Mandatory fields**
    - role_id (PK)
    - role_name
- **Allowed roles**
    - Supplier
    - NGO
    - Logistics
    - Government
- **Additional rules**
    - role_name must be unique
    - No other roles may be inserted

3. Suppliers (supplier)

- **Mandatory fields**
    - supplier_id (PK)
    - supplier_name
    - user_id_supplier (FK → user_details.user_id)
- **Additional rules**
    - supplier_name must be unique across suppliers
    - The referenced user_id_supplier must exist and have role "Supplier"

4. Food Offerings (food_table)

- **Mandatory fields**
    - food_id (PK)
    - food_name
    - unit_of_measure
    - supplier_id (FK → supplier.supplier_id)
    - quality
    - total_quantity
    - user_id_gov (FK → user_details.user_id)
- **Additional rules**
    - total_quantity > 0
    - quality must be an integer 1–10
    - The referenced user_id_gov must exist and have role "Government"

5. Main Food Data (main_food_data)

- **Mandatory fields**

    - main_id (PK)

    - food_id (FK → food_table.food_id)

    - total_quantity

    - unit_of_measure

    - food_status

- **Additional rules**

    - total_quantity ≥ 0.

    - unit_of_measure must match the UOM in food_table.

    - food_status ∈ { 'available', 'unavailable' }.

    - **Trigger:** when total_quantity becomes 0, auto-set food_status = 'unavailable'

6. NGO Requests (ngo_request)

- **Mandatory fields**

    - ngo_request_id (PK)

    - main_id (FK → main_food_data.main_id)

    - req_quantity

    - user_id_ngo (FK → user_details.user_id)

- **Additional rules**

    - req_quantity > 0 and ≤ main_food_data.total_quantity.

    - Requests are implicitly "open" when inserted; you may implement a status column or remove the row on closure

7. Logistics (logistic)

- **Mandatory fields**

    - logistics_id (PK)

    - driver

    - delivery_status

    - ngo_request_id (FK → ngo_request.ngo_request_id)

    - user_id (FK → user_details.user_id)

- **Additional rules**

    - delivery_status ∈ { 'T' = True, 'F' = False }.

    - The referenced user_id must exist and have role "Logistics."

    - Each ngo_request_id should map to exactly one logistics record once approved