# Farm2Market App - UML and Database Diagrams Overview

This document serves as a concise reference for all the major design diagrams developed for the Farm2Market application. Each diagram is described with a purpose and linked to its corresponding Lucidchart or image representation.

## 1. Use Case Diagram

Purpose: Illustrates the interactions between external actors (Farmer, Buyer, Admin) and the system. Shows functionalities like registration, listing products, making reservations, and admin moderation.

Key Relationships:

* - Includes: Auto-generate password, Send approval email, View listing
* - Extends: Payment after reservation, Review after payment

Lucidchart Link: [https://lucid.app/lucidchart/47e157d3-d140-4292-b691-8c400f744879/edit?viewport\_loc=-1072%2C1338%2C1658%2C867%2C0\_0&invitationId=inv\_80c471d1-7b65-4159-a0fe-b8e5f29fb763]

## 2. Class Diagram (Domain + Functional)

Purpose: Represents the structure of the system including classes like User, FarmerListing, Reservation, etc. Shows attributes and methods, along with their relationships (associations, inheritance).

Coverage:

* - Core data models (User, Listing, Transaction, etc.)
* - Service logic embedded as methods in classes

Lucidchart Link: [https://lucid.app/lucidchart/763c674a-428c-479d-8502-f1686a00b94f/edit?viewport\_loc=-1329%2C603%2C2437%2C1274%2C0\_0&invitationId=inv\_4646a171-3e58-4bcc-a217-5cc45e99c923]

## 3. E-R Diagram (Database Structure)

Purpose: Outlines how database tables relate to each other. Useful for backend developers working with MySQL schema.

Tables Included: users, farmer\_profiles, buyer\_profiles, reservations, transactions, reviews, categories, notifications, alerts, etc.

Lucidchart Link: [https://lucid.app/lucidchart/763c674a-428c-479d-8502-f1686a00b94f/edit?viewport\_loc=-1319%2C509%2C2395%2C1253%2C0\_0&invitationId=inv\_4646a171-3e58-4bcc-a217-5cc45e99c923]

## 4. Notes

* - These diagrams are essential for both frontend/backend devs, stakeholders, and database engineers.
* - Keep Lucidchart links updated as diagrams evolve.

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