## **Project Title**

**Home Cook Meal Platform**

**Overview**

This project models a multi-role platform that connects customers with home cooks, enabling customers to browse, order, and rate home-cooked meals. It allows home cooks to manage their profiles, availability, menu, and payments. Admins oversee platform functionality, user accounts, disputes, and analytics.

**List of Collections**

1. users
2. meals
3. orders
4. payments
5. reviews
6. tickets

**Data Modeling Strategy: Embedding vs Referencing**

We used a **hybrid approach** — embedding where data is tightly coupled, and referencing where reuse and scalability are priorities.

### **👤 users**

* **Embedding**:  
  + Embedded address (address) and profile info for quicker access.
* **Referencing**:  
  + Referenced by orders, reviews, tickets, and payments.

**Reason**: User information like address or profile photo is frequently accessed together, so it's embedded. References are used elsewhere to prevent duplication.

### **🍽️ meals**

* **Referencing**:  
  + References cookId from users collection.

**Reason**: Meals belong to cooks but are accessed independently (search, filters). Referencing allows reuse and indexing.

### **🛒 orders**

* **Embedding**:  
  + Embedded array of items (each with mealId, quantity).
* **Referencing**:  
  + References userId and cookId.

**Reason**: Order items are tightly coupled with the order document. Cook and user are referenced for traceability and analytics.

### **💳 payments**

* **Referencing**:  
  + References orderId and userId.

**Reason**: Payments should be separated from orders for financial audit trails and reporting.

### **⭐ reviews**

* **Referencing**:  
  + References both mealId and userId.

**Reason**: Reviews are loosely coupled and often displayed on meal or user profiles, making referencing ideal.

### **🛠️ tickets**

* **Embedding**:  
  + Embedded array of messages (each with sender, text, timestamp).
* **Referencing**:  
  + References userId.

**Reason**: Messages are inherently linked to their ticket and don’t need querying outside that context. User is referenced for history and ownership.