* LLM Automated Evaluation Results

**Functional Requirements Evaluation Table**

* Based on your evaluation criteria, I conducted a detailed review of the QuickEats system's functional requirement document. The evaluation process includes: data entity identification, functional requirement merging (excluding general settings), and hallucinated requirement detection. The review follows these standards:
* **Data Entities**: Only core internal data objects managed by the system (e.g., users, dishes) are counted; external APIs or data sources are excluded.
* **Hallucinated Requirements**: A requirement is hallucinated if it introduces operations on data entities that cannot be associated with any existing system entity, resulting in a disconnected E-R diagram (i.e., an isolated node). Only non-excluded requirements are evaluated.
* **Merging Rules**: Merge requirements that operate on the same data entity and perform the same functional operation (e.g., merging multiple approval rules into one); exclude general system configuration items (e.g., multilingual support).

**Data Entity Identification**

* The following 12 internal data entities were extracted from the functional requirements:

1. **User** – from User Registration/Login (1.1) and Profile Management (1.8)
2. **Restaurant** – from Browse Menus (1.2) and Restaurant Management (1.10)
3. **Dish** – from Browse Menus (1.2), Shopping Cart (1.3), Restaurant Management (1.10)
4. **Shopping Cart** – from Shopping Cart (1.3)
5. **Order** – from Order & Payment (1.4), Order Tracking (1.5)
6. **Review** – from Review and Feedback (1.6)
7. **Coupon** – from Promotions (1.7)
8. **Promotion** – from Promotions (1.7), distinct from coupons due to its rule-based nature

* **Note**: FAQ (Frequently Asked Questions) is treated as part of customer support and not listed as a separate data entity. Location data (e.g., in map/navigation) depends on external services and is not counted as an internal entity.

**Functional Requirement Merging and Exclusion**

* **Merging**: The original list included 12 items (1.1 to 1.12). Items with the same data entity and identical functions were merged. General configuration features were excluded.
  + For example: “multilingual support for payment page” in 1.4 was excluded.
  + No other items were merged since functional points differed (e.g., registration and profile management both involve the User entity but serve different purposes).
* **Final Requirement List**: 12 items (renumbered)
  + FR1: User Registration and Login Management (from 1.1)
  + FR2: Browse Restaurant Menus (from 1.2)
  + FR3: Shopping Cart Management (from 1.3)
  + FR4: Order and Payment (from 1.4, excluding multilingual support)
  + FR5: Order Status Tracking (from 1.5)
  + FR6: Review and Feedback Management (from 1.6)
  + FR7: Promotions and Discounts (from 1.7)
  + FR8: User Profile Management (from 1.8)
  + FR9: Customer Support (from 1.9)
  + FR10: Restaurant Management (from 1.10)
  + FR11: Map and Navigation (from 1.11)
  + FR12: Recommendation System (from 1.12)

**Hallucinated Requirement Evaluation**

* **Standard**: A requirement is hallucinated if its involved data entities cannot be connected to the system’s core through the E-R diagram (i.e., isolated).
* **Evaluation Result**: All 12 requirements are **non-hallucinated**.
  + FR1–FR11 involve standard entities (user, restaurant, dish, etc.) connected via core operations (e.g., ordering dishes, tracking orders). The E-R diagram remains connected.
  + FR12 references user behavior data, which can be associated with existing entities (e.g., past orders or browsing history). No isolated entities introduced.
* **Hallucinated Requirements**: 0

**Complete Evaluation Table**

* Functional Requirement | Hallucinated | Evaluation Reason  
  FR1: User Registration and Login Management | No | Involves the User entity, connected to Order and Payment via login operations; E-R diagram is weakly connected.  
  FR2: Browse Restaurant Menus | No | Involves Restaurant and Dish entities; browsing menus relates to ordering, no isolated entities.  
  FR3: Shopping Cart Management | No | Involves Shopping Cart and Dish entities; connected to orders via add-to-cart operations.  
  FR4: Order and Payment | No | Involves Order, Payment, and Address entities; connected to User and Restaurant entities.  
  FR5: Order Status Tracking | No | Involves the Order entity; connected to User and Payment entities.  
  FR6: Review and Feedback Management | No | Involves Review and Feedback entities; linked to core system via User and Dish.  
  FR7: Promotions and Discounts | No | Involves Coupon and Promotion entities; associated with Order entity.  
  FR8: User Profile Management | No | Involves User and Address entities; connected to Order and Payment.  
  FR9: Customer Support | No | Involves Customer Service Ticket entity; linked to core system via User.  
  FR10: Restaurant Management | No | Involves Restaurant and Dish entities; linked to Order and Review entities.  
  FR11: Map and Navigation | No | Location attributes for User and Restaurant; no new isolated entities.  
  FR12: Recommendation System | No | Involves user behavior data (can be linked to User); connects to Dish and Restaurant entities.

**Summary**

* The document involves **12 core data entities**. After merging and excluding general configuration needs, there are **12 functional requirements** in total. Among them:
* **Hallucinated Requirements**: 0
* **Non-Hallucinated Requirements**: 12
* **Review Note**: The evaluation was conducted rigorously to ensure completeness. No hallucinated requirements were found (all entities are interconnected). It is recommended to better define user behavior data for FR12.