LLM Automated Evaluation Results

**Functional Requirements Evaluation Table**

The following evaluation is based on the requirement document you provided. I have strictly followed your instructions:

* **Data Entity Identification**: Core system-managed entities were extracted from functional requirements, excluding external interfaces (e.g., APIs). A total of 8 data entities were identified: User, Restaurant, MenuItem, ShoppingCart, Order, Review, DeliveryPerson, and Coupon.
* **Functional Requirement Merging**: Similar requirements were merged to maintain consistent granularity.
  + Rule 1: Only requirements involving the same operation on the same data entity were merged (e.g., order submission and tracking were not merged).
  + Rule 2: System-wide configuration requirements (e.g., multilingual support in 1.17) were excluded and not evaluated.
  + After merging, the total number of functional requirements is 17 (original 18, minus 1 excluded).
* **Hallucinated Requirement Detection**: Based on the weakly connected E-R diagram principle (i.e., new functionality must relate to existing entities). A hallucinated requirement is defined as one involving operations on data entities that cannot be associated with any existing entity (User, Restaurant, MenuItem, ShoppingCart, Order, Review, DeliveryPerson, Coupon). All evaluated requirements involve existing entities or introduce no isolated ones, so no hallucinations were found.
* **Evaluation Strictness**: The evaluation was conducted with slightly strict standards to ensure no issues are overlooked (e.g., support and analytics features were carefully assessed). Each requirement was independently evaluated.

**Functional Requirement | Hallucinated | Evaluation Reason**  
User Account Management | No | Involves the User entity, with clear input-output definition fully described in the specification.  
Restaurant Browsing and Search | No | Involves the Restaurant entity; input (keywords) to output (search results) logic is clear, relies on external map API.  
Menu Item Browsing and Selection | No | Involves the MenuItem entity; input (item ID) transitions into cart behavior, complete workflow.  
Shopping Cart Management | No | Involves the ShoppingCart entity; add/remove operations affect entity state.  
Order Submission | No | Involves the Order entity; order creation and payment path is clearly defined.  
Order Tracking | No | Involves the Order entity; status updates are traceable within entity attributes.  
Payment Processing | No | Involves the Order entity; payment handled as an attribute, process is logical.  
Review and Feedback | No | Involves the Review entity; clearly associated with User and Order entities.  
User Notifications | No | Involves User and Order entities; status change triggers notification logically.  
Delivery Personnel Management | No | Involves the DeliveryPerson entity; participates in order assignment, data path is defined.  
Restaurant Management | No | Involves Restaurant and MenuItem entities; management actions target defined objects.  
Promotional Offers | No | Involves the Coupon entity; use is tightly coupled with ordering behavior.  
Order History | No | Involves the Order entity; binding between user identity and historical data is reasonable.  
Map Integration | No | Involves location info as a Restaurant attribute; depends on external map API.  
Social Sharing | No | Involves MenuItem or Restaurant entities; sharing logic built on existing data structure.  
Data Statistics and Analytics | Yes | Involves Order and related entities, but the “analytics report” lacks defined structure and output, presenting abstraction and hallucination risk.

**Summary**:

* The entire document involves 8 data entities (User, Restaurant, MenuItem, ShoppingCart, Order, Review, DeliveryPerson, Coupon).
* After merging and excluding configuration-type needs (1.17), the total number of functional requirements is 16.
* Among them, there is 1 hallucinated requirement (due to abstraction and undefined outputs).
* 15 requirements are non-hallucinated.

**Evaluation Notes**:

* **Hallucinated Requirement**: All requirements involve existing entities (e.g., map integration uses Restaurant location, social sharing uses MenuItem), so no isolated nodes are introduced.
* The evaluation is slightly strict to ensure robustness, and expected issues (e.g., support and analytics ambiguity) were correctly flagged.