

# IMDB DRINKS – RATINGS & REVIEWS REQUIREMENTS

## 1. Introduction

The “IMDB Drinks” platform enables users to discover, rate, and review various drinks. This document details the requirements related to user ratings and reviews, using star ratings and textual feedback. In addition, this revision incorporates our MySQL database design and integration work, ensuring that ratings and reviews are stored reliably.

**Note:** Searching or filtering for drinks is **out of scope** for this iteration; these requirements strictly address ratings and reviews.

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## 2. Glossary

- **Drink:** An item in the database representing a beverage.
  - **Star Rating:** A numeric rating from 1 (lowest) to 5 (highest).
  - **Review:** A user-submitted text associated with a star rating for a specific drink.
  - **LLMs Generated Review:** A feature where AI suggests or auto-generates text for a review
  - **Validation Errors:** Clear user-facing error messages displayed when invalid data is submitted
  - **Database Integration:** Connecting the front-end and back-end layers to a MySQL database to persist user data
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## 3. Stakeholders & Owners

- **Ratings Team:**  
Primarily responsible for implementing the rating logic, review submission, and handling images in reviews.
  - **Authentication/Authorization Team (Cross-Team):**  
Ensures only logged-in users can submit reviews and enforces sign-in flows.
  - **Database/Integration Team**  
Responsible for designing and maintaining the MySQL database schema for ratings, and reviews.
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## 4. Functional Requirements

### 4.1 Rating & Review Submission

#### FR1: Star Ratings:

- **Description:** The system shall allow users to rate each drink using an integer star rating from 1 to 5.
  - **Owner:** Ratings Team
  - **Verification:**
    - Attempt to submit a rating below 1 or above 5 → System does not let you to select a non-valid rating.
    - Submit a valid star rating → System accepts and saves the rating.
  - **Feasibility:** The database can store an integer value (1–5) for each user–drink rating.
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## FR2: Text Reviews

- **Description:** The system shall allow users to submit a textual review alongside their star rating.
  - **Owner:** Ratings Team
  - **Constraints:**
    - Text field does not support an empty string.
  - **Verification:**
    - Submit textual review → System saves and associates the review with the user and the drink.
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## FR3: Database Integration

- **Description:**
    - The system must connect to a MySQL database to store ratings and reviews.
    - Data is fetched and displayed in real-time on the front-end.
  - **Owner:** Ratings Team / Integration Team
  - **Constraints:**
    - The Ratings table stores each user–drink rating.
    - The Reviews table stores textual reviews linked to each rating via a foreign key.
  - **Verification:**
    - Create and retrieve entries from both the Ratings and Reviews tables successfully.
    - Verify that each rating can have one or more associated reviews.
  - **Feasibility:** The MySQL database schema is configured to support the required data types and relationships.
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## FR4: LLM-Generated Review Suggestions

- **Description:** The system shall provide optional LLM-generated review suggestions to assist users in composing their textual reviews.
  - **Owner:** Ratings Team
  - **Verification:**
    - When a user selects the “Generate Review” option, the system retrieves a suggested review draft from some keywords that the user introduce.
    - The suggested review is presented in an editable text field for the user before final submission.
  - **Feasibility:** The system integrates with an external LLM service ensuring the generated content meets style and content guidelines.
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## FR5: Data Validation

- **Description:** The system shall enforce rigorous data validation on all user inputs for ratings and textual reviews.
- **Owner:** Ratings Team

- **Constraints:**
    - Numeric values (star ratings) must be within the valid range (1–5).
    - Text reviews must not be empty.
  - **Verification:**
    - Attempt to submit an invalid rating (e.g., a value outside 1–5) → System prevents submission.
    - Attempt to submit an empty text review → System displays a validation error indicating the review cannot be blank.
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## 4.2 Viewing Reviews

### FR6: Viewing Reviews & Ratings

- **Description:** The system shall display the average star rating and list of reviews for each drink rating.
  - **Owner:** Ratings Team
  - **Verification:**
    - A user accesses the drink details page → The system displays the average star rating along with the list of reviews.
  - **Feasibility:** The front-end retrieves and presents the necessary data efficiently from the database.
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### FR7: Average Star Rating

- **Description:** The system shall calculate and display an average star rating for each drink based on all submitted user ratings.
  - **Owner:** Ratings Team
  - **Verification:**
    - If a drink has ratings of 5, 3, and 2 → Average is 3.33 (rounded to two decimals).
    - Display the average rating on the drink's detail page.
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## 5. Non-Functional Requirements (NFR)

### NFR1: Performance

- The system shall display drink details and existing reviews within 2 seconds for up to 10,000 drinks in the database.

### NFR2: Reliability

- The system shall ensure that reviews are never lost once submitted. If an error occurs, the user is notified, and the review is not partially saved.

### NFR3: Usability

- The star rating widget must be straightforward to use (e.g., clickable stars).
- The review submission process must provide clear feedback for any input errors.

### NFR4: Security

- All review submission endpoints require a valid authenticated session token.
- Input data is sanitized on both client and server sides to prevent injection attacks.

#### NFR5: Scalability

- The ratings system must handle up to 1,000,000 total reviews without significantly degrading response times.
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#### 7. Requirement Traceability & Verification

Req. ID	Title	Verification Method	Owner
FR1	Star Ratings	Manual test	Ratings Team
FR2	Text Reviews	Manual test	Ratings Team
FR3	Database Integration	Integration test; manual test	Ratings + Integration
FR4	LLM-Generated Review Suggestions	UI test; manual test	Ratings Team
FR5	Data Validation	Manual test	Ratings Team
FR6	Viewing Reviews & Ratings	UI test; manual test	Ratings Team
FR7	Average Star Rating	Manual test (calculation)	Ratings Team

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#### 8. Feasibility & Constraints

- **Database:** Must support storing each drink's ratings and text reviews.
  - **Time Constraint:** These features must be implemented by the end of the next sprint (two weeks).
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#### 9. Approval & Sign-Off

All stakeholders have reviewed these requirements. By signing off, each team agrees to implement their respective components and meet the acceptance criteria outlined.

Role/Team	Name/Signature	Date
Ratings Team Lead		2025-03-14
Integration Team		2025-03-14

**Role/Team**

**Name/Signature Date**

Product Owner

2025-03-14

***APPROVED BY: RATING & REVIEW TEAM***