

Interactive Challenges

Challenge 1: Aggregation Pipeline

Your Turn!

Write an aggregation pipeline to find the average rating for each genre in **2024**, but only include genres with **more than 10,000 total views**.

Output Requirements:

- genre
 - average_rating (rounded to **1 decimal**)
 - total_views
-

Challenge 2: CRUD Operations for FastBite’s Menu

Your Turn!

You’re managing FastBite’s menu database. Complete these tasks using MongoDB CRUD operations:

- Add a new vegan dish**
 - **Name:** “Tofu Buddha Bowl”
 - **Cuisine:** “Asian”
 - **Price:** \$9.50
 - **Tags:** ["vegan", "gluten-free"]
 - **Available:** true
 - Find all available vegan dishes under \$12**
 - **Output:** Show only name and price .
 - Update the price of “Tofu Buddha Bowl”**
 - **New Price:** \$10.00
 - **Add a new tag:** “popular”
 - Delete the dish “Old Special Soup”**
-

Challenge 3: ACID-Compliant Payment Refund

Your Turn!

You’re building a refund feature for FinTrust. Implement the following as a **MongoDB transaction**:

- Refund a payment:**
 - Add the refund amount back to the **sender’s balance**.
 - Subtract the amount from the **recipient’s balance**.
 - Update the original transaction’s status to **“refunded”**.
 - Log a new transaction record as a **refund**.
- Ensure:**
 - If **any step fails** (e.g., recipient lacks sufficient balance), **no changes** are made.

- All operations are **ACID-compliant**.
-

Instructions:

- Write clear, efficient MongoDB queries/transactions for each challenge.
- Test your solutions to ensure correctness.