



Gen-AI Query System: Use Cases

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Use Case 1: Filter by Rating, Reviews & Brand

- Use Case ID: UC-01
- Goal: Find products with rating < 4.5, reviews > 200, brand is 'Nike' or 'Sony'
- Precondition: Data in MongoDB
- Postcondition: Filtered product list shown or saved

Use Case 1: Filter by Rating, Reviews & Brand

Main Flow:

1. User asks a natural language question
2. LLM generates MongoDB query
3. System executes query
4. Results are returned

Alternate Flow: Field mismatch prompts user to retry

Use Case 2: Electronics in Stock & Highly Rated

- Use Case ID: UC-02
- Goal: Find electronics with rating ≥ 4.5 and in stock
- Precondition: Product data in MongoDB
- Postcondition: Filtered list shown or saved

Use Case 2: Electronics in Stock & Highly Rated

Main Flow:

1. User asks a question
2. LLM creates MongoDB query
3. System runs the query
4. Result displayed or exported

Alternate Flow: Field mismatch triggers validation error

Use Case 3: Recent Launches with Discounts

- Use Case ID: UC-03
- Goal: Products in 'Home & Kitchen' or 'Sports' with $\geq 10\%$ discount, launched after Jan 1, 2022
- Precondition: Product data with dates and discount info
- Postcondition: Sorted result list shown or saved

Use Case 3: Recent Launches with Discounts

Main Flow:

1. User types question
2. LLM builds MongoDB query
3. System applies filter and sort
4. User views or downloads results

Alternate Flow: Date format issue returns error message



Thank you

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