#### As a user, I want to:

### Search Functionality:

- Enter a search query and receive relevant results:
  - "When I type a word or phrase into the search bar, I want to see results that match my query, displayed clearly and organized in a way that makes sense."
  - o "I want to be able to refine my search by filtering the results based on different criteria."
- Explore search results efficiently:
  - "I want to be able to quickly scan through the results and identify the items that are most relevant to me."
  - "I want to be able to sort the results by different criteria, such as relevance, date, or popularity."

### **Error Handling:**

- Receive clear and informative error messages:
  - "If something goes wrong with my search, I want to be given a clear explanation of what happened and what I can do to fix it."
  - "I want to be able to report errors to the system administrators so that they can investigate and fix any problems."

#### **Documentation:**

- Access comprehensive documentation:
  - "I want to be able to easily find documentation that explains how to use the API, including how to make requests and interpret responses."
  - "I want the documentation to be clear, concise, and up-to-date."

## **Database Integration:**

- Retrieve and store search data reliably:
  - o "I want to be confident that the search results are accurate and up-to-date."
  - "I want my search history to be saved so that I can easily revisit previous searches."

#### Middleware:

- Enhance API functionality:
  - "I want the API to be able to perform additional tasks, such as logging requests and responses."
  - "I want the API to be able to protect itself from attacks."

#### Security:

- Protect my data and privacy:
  - "I want to be confident that my personal information is secure and cannot be accessed by unauthorized users."
  - "I want to be sure that the API is protected from attacks that could compromise my data."



# **Code Structuring and Design Patterns:**

- Maintain a well-organized and efficient codebase:
  - "I want the API to be easy to understand and maintain, even as it grows and becomes more complex."
  - "I want the API to be designed in a way that is scalable and can handle a high volume of requests."

## **Additional Considerations:**

- Performance: "I want the search results to load quickly, even when I'm searching for a large number of items."
- Scalability: "I want the API to be able to handle a growing number of users and searches."
- Maintainability: "I want the API to be easy to update and fix bugs."
- Testability: "I want the API to be easy to test to ensure that it's working correctly."

