

GrantGuru Requirements Document

Abdullahi Abdullahi, Mathieu Poulin, James Tedder, Colby Wirth

October 7, 2025

1 Introduction

This section outlines the functional requirements of the system, describing the core features and capabilities it must provide. Functional requirements define what the system should do to meet user needs, including account management, grant tracking, and proactive notifications. They form the basis for system design, and development.

2 Functional Requirements

The system provides two primary sets of functionalities: **user account management and grant application tracking**, and **grant alert notifications**.

1. User Account Management and Grant Application Tracking

Users can create personal accounts, which serve as the foundation for tracking grants and managing application statuses. Once logged in, a user can:

- **Search for grants** using relevant criteria.
- **Create and manage grant applications**, where each application records:
 - Information pertaining to the grant
 - The current **status** of the application.
 - Any **associated documents**.
 - **Personal notes or comments** entered by the user.

Each grant stores all relevant information available from the public grant database.

2. Grant Alert Notifications

The system provides proactive notifications to keep users informed of relevant grant opportunities. Users may opt to receive **email alerts** for:

- Newly posted grants.
- Forecasted grants based on predefined schedules.

Alerts can be sent at configurable intervals, such as daily, weekly, or monthly. Clicking an alert link directs the user to the login page; after authentication, the user is taken to their personalized application dashboard to view the relevant grants and applications.

3 Non-Functional Requirements

3.1 Performance

- The system shall respond to local user requests, such as local searching for grants and loading application data, within **2 seconds** under normal operating conditions. Requests that query external sources for scraping shall be executed within **5-10 seconds**.
- The system will support at least **5-10** users without significant degradation in performance.
- The system shall first search its own database for requested grant information and only query external sources if the data is not already available locally, to reduce external requests and minimize wait times.

3.2 Security

- All user data shall be transmitted using **encryption protocols (TLS/SSL)**.
- Sensitive information, to include passwords, shall be stored as **encrypted** strings.
- The system shall limit external data queries to a maximum of **1 request every 5 seconds** per user.

4. Usability

- The user interface shall be accessible to all with basic experience in web applications and databases.