

Software Requirements for BookWorm

Functional Requirements

1. Users
 - a. Users should be able to log into their university account and pay fines.
 - b. Authenticated users should be able to search for specific databases, articles, and books by subject category, vendor type, online or physical, availability, title, author, and academic status.
 - c. Authenticated users should be able to view and navigate databases, articles, and books and see their description, publishing details, citation, and summary.
 - d. Authenticated users should be able to create a personal collection of books that can be added and removed from personally created categories.
 - e. Authenticated users should be able to reserve a study room by date and size if available.
 - f. Authenticated users should be able to edit their copies of books by adding notes, bookmarks, and highlights.
 - g. Authenticated users should be able to download licensed copies of databases, articles, and books.

Non-Functional Requirements

Usability

- The system should be easily navigable by users so that the number of help requests does not exceed 10 per hour.

Performance

- Each system request should be processed within 4 seconds.

Space

- Memory usage of the site should never exceed 1 gigabyte.

Dependability

- The site should load in 5 seconds when the number of users is less than 1000 and no more than 10 seconds when the number users exceed 5000.

Security

- The user login feature should only allow a maximum of 5 login attempts before locking the user out for 15 minutes.

Environmental

- The repository server should be kept in an area that allows it to stay within the range of 20 to 60 degrees Celsius at all times.

Operational

- The system must maintain a minimum of 20 users per day to be kept in operation. If this is not maintained for a total of 30 days, the system will shut down.

Development

- The system will be programmed in java using object-oriented programming while also using html, CSS, and JavaScript for the website.

Regulatory

- All databases, articles, and books must be checked for their relation to academics in some way shape or form to be kept in the repository.

Ethical

- All databases, articles, and books must be properly licensed in order to prevent copyright infringement and piracy.

Accounting

- The upkeep of all systems must not exceed \$100,000 a year, including the cost of licenses, webhosting, and employment.

Safety/Security

- All databases, articles, and books must be scanned for malware and viruses by an expert beforehand to ensure that users are not exposed to harm.