

Software Requirement Specifications

List of Features:

1. **Different Art Styles:** 3 different art styles are provided for the theme of the image generation; Cartoonish, Realistic and Line/Art sketch.
2. **Character Consistency:** Maintain character consistency across all illustrations within a book, ensuring that characters introduced in the story maintain their appearance and characteristics throughout.
3. **Genre/Mood Relevance:** Illustrations which are generated will be relevant to the theme, style and context of the genre of the book which is provided.
4. **User Dashboard:** A full-stack application which will contain a user dashboard maintaining the generated illustrations and a rating system.

Functional Requirements:

1. User Authentication and Management

- a. User can register with the system.
- b. User can login/logout securely.
- c. User data including profile information is stored and managed.

2. Text Input and Processing

- a. User can input text content (such as a story) into the application.
- b. The application processes the text and analyzes it for relevant illustration generation.

3. Art Style Selection

- a. Users have a choice of 3 different art styles.
- b. Art style remains consistent throughout.

4. Character Consistency

- a. The application maintains consistency in the appearance and characteristics of characters introduced in the story throughout all illustrations.

5. Genre and mood analysis

- a. The system analyzes the genre, mood, and context of the provided text to ensure generated illustrations are relevant to the theme and atmosphere of the book.

6. Illustration Generation:

- a. The application generates illustrations based on the input text and selected art style.
- b. Generated illustrations are visually appealing, coherent, and align with the text's descriptions.

7. PDF Export

- a. Users can download their generated books in PDF format.
- b. The PDFs are well-formatted and include both text and illustrations.

8. User Dashboard

- a. Users have access to a personalized dashboard.
- b. The dashboard displays a history of all books generated by the user.
- c. Users can view, edit delete their past books.

Quality Attributes:

- 1. **Security:** Proper access controls are implemented to ensure that users can only access their own data and perform authorized actions.x
- 2. **Usability:** User-Friendly Interface, the application offers an intuitive and user-friendly interface for easy navigation and interaction.
- 3. **Maintainability:** The application design allows the developers to easily add new features in the Dashboard region of the application if ever needed.

Non-functional Requirements:

- 1. Cross-Browser Compatible and responsive display for various devices (tablets, smartphones, laptops)
- 2. User's data is secure and cannot be accessed by anyone but themselves
- 3. Manage user sessions securely, including session expiration, session token security, and handling of session data.