

# PureStory

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Version 1.0

## Summary of Project

This project provides a platform for the young generation (age 3 - 12) to create stories, share stories and discover interesting stories from peers, parents, teachers or professional writers. Users can create fiction, nonfiction or educational stories by just inputting characters, background and genre, choose if the story has covers or not, choose if the story has illustrations or not, and choose the length of stories. Besides, users can share their own stories, provide feedback for other stories, favorite stories, gain points according to their activities, and earn money by charging story viewing fees.

## Project Analysis

### Value Proposition

Nowadays, the Internet has a lot of inappropriate novels, animated books, and comics. It is difficult for the young generation (ages 3 - 12) to have a pure and safe online space to feel the happiness of reading and creating stories. Parents or educators also find it hard to cultivate good reading habits, and various studies conducted amongst children show a decline in the number of children who enjoy reading.

### Primary Purpose

The main purpose of this project is to construct a pure story community for the young generation (age 3 - 12), where they learn from reading and creating stories, cultivate good learning and living habits, as well as improve their creativity.

### Target Audience

**Children (ages 3 - 12):** They can feel the happiness of reading and creating stories, boosting their imagination, creativity and curiosity.

**Parents:** They can monitor their children's activities and create stories for their own children very easily, which is a great way to help them grow.

**Educators:** They can transform the boring educational content into vivid stories very easily, which will invoke student's interests and make the content much easier to understand.

**Professional Writers:** They can create professional works for the kids more quickly and interestingly.

### Success Criteria

**Phase 1:** 1) Download: over 5,000 downloads; 2) User satisfaction survey: In the effective feedback, over 85% users give the positive feedback.

**Phase 2:** 1) Download: over 100,000 downloads; 2) Financial gain: over \$5,000; 3) User satisfaction survey: over 90% positive feedback.

## Competitor Analysis

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| <b>Competitor Summarization</b>   |
| <p><b>Wattpad Kids</b> offers a vast library of stories but lacks content curation, posing risks for young users.</p> <p><b>StoryJumper</b> focuses on book creation from page to page and publishing rather than generating content using AI, besides it is not so much community-driven storytelling like PureStory.</p> <p><b>Epic!</b> provides a curated selection of books but lacks interactive storytelling features present in PureStory.</p> <p><b>Episode, Tales and Chapters</b> are applications that allow users to craft stories using a game-like interface where the decisions made by the user alter the course and outcome of the story, but lack content curation, posing risks for young users.</p>  |
| <b>PureStory Summarization</b>  |
| <p><b>Strengths:</b> PureStory's strengths lie in its commitment to providing a curated and safe environment for young readers, setting it apart from competitors like Wattpad Kids. The platform's integration of ChatGPT 3.5 or GPT-4 enables interactive storytelling experiences, fostering user creativity and engagement through images generated based on the story. Additionally, PureStory boasts an intuitive interface that caters to a diverse audience of children, parents, educators, and writers, enhancing accessibility and usability, where users can conveniently share stories amongst their community and receive feedback.</p> <p><b>Weaknesses:</b> While PureStory offers unique advantages, it faces challenges in competing with established platforms like Epic! and StoryJumper, which already possess large user bases and brand recognition. The platform may also encounter difficulties in initially building a robust library of stories compared to competitors with extensive collections. Moreover, PureStory will need to invest in strategic marketing efforts to overcome competition and gain traction in the market, particularly against rivals with larger marketing budgets.</p> |

## Monetization Model

**Phase 1:** free and different campaign awards to attract more users. Everyone can read unlimited books on the platform, and earn points by platform activities. They could use these points to exchange presents.

**Phase 2:** 1) Sharing story viewing income with creators. If people want to view some popular books labeled as charging (System authorizes charging permission based on viewing amount and creator to confirm charging or not), they must pay for it. 2) Selling story copyright or hardcover books or relevant products based on stories.

# Initial Design

## UI/UX Design

The initial design for the PureStory platform is shown below:

- Necessary components/interactions
  - Set user profile - parent/educator/child (for content moderation based on user type / Privacy setting)
  - Create stories
  - Read stories
  - List stories (generated by user, filter by age, genre, creation time)
    - Login as a user (implies database, password encryption)
    - Save stories (implies storage)
  - Interaction with stories (like, comment, favorite, share, and report)
  - Send or accept friend requests for community
    - Receive notifications
    - Send friend requests or invite a friend to join (implies database, APIs for communication)
- CrucialUI
  - Story reader page
  - List of generated stories
  - Create new story
  - Community page
- Minimum required navigational flow
  - Dashboard
    - List of stories
    - Create new story
    - Notifications
    - Communities list
- Services/APIs?
  - Authentication API to manage user registration and login
  - APIs for Generative AI (Dalle and ChatGPT)
  - APIs for communication services
  - Notification service API
  - Data retrieval from DB for listing, filtering

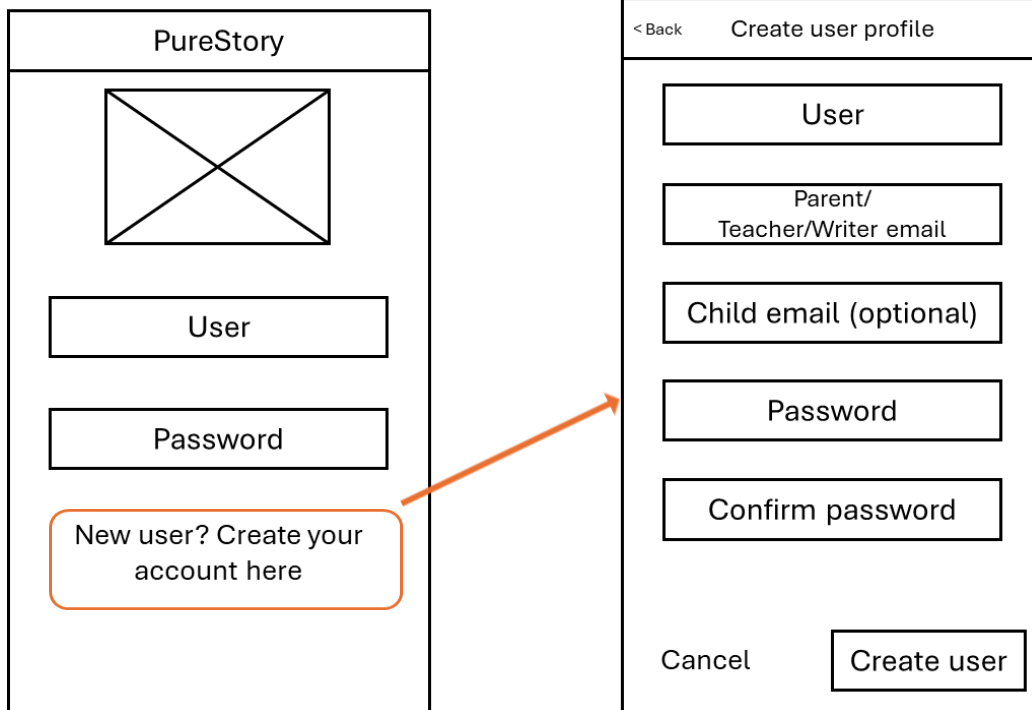


Figure 1. Sketches for login and create new user views of the PureStory app.

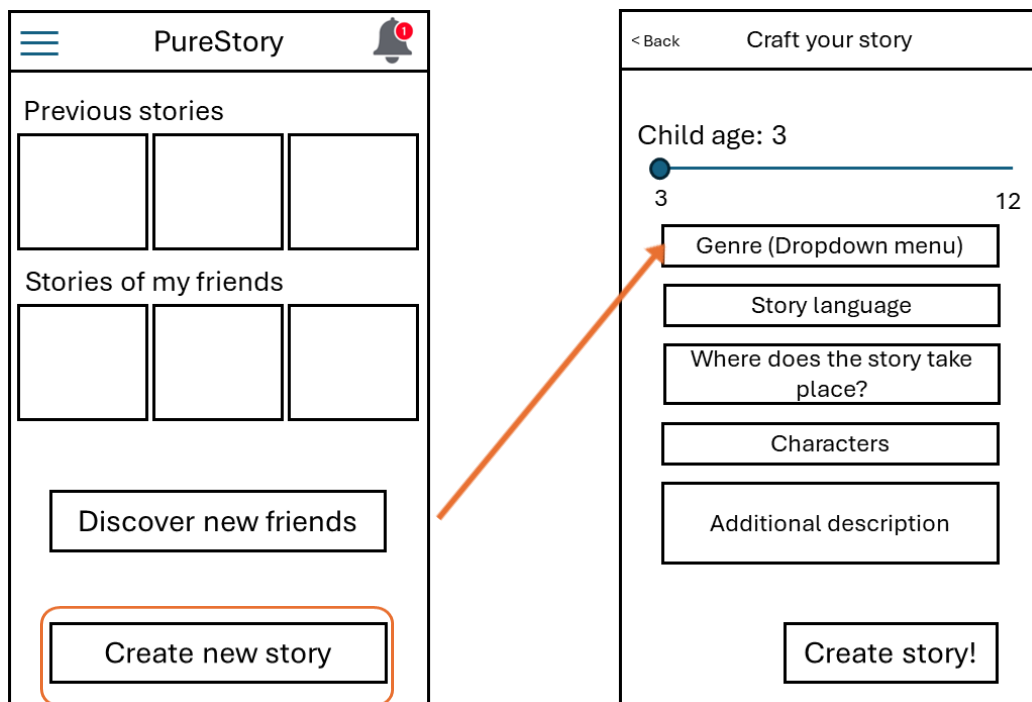


Figure 2. Sketches for Dashboard and Create new story views.

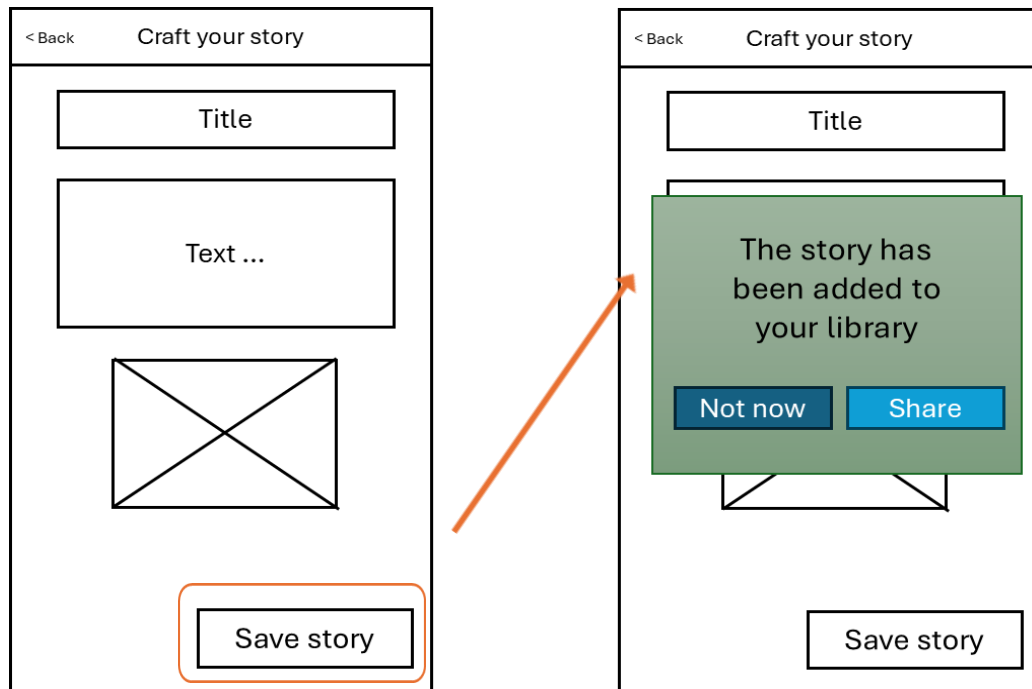


Figure 3. Sketches for view of the created story and share option.

## Technical Architecture

Three-tier architecture for the system of the storytelling app. The first tier will contain the functionality needed to access the system's services through a UI. The second tier, application tier, will be in charge of all the service requests from the client tier and accessing and processing data from the back tier. The data/service tier will contain the database and the APIs for all the additional services like ChatGPT, Dalle3, notification and communication services.

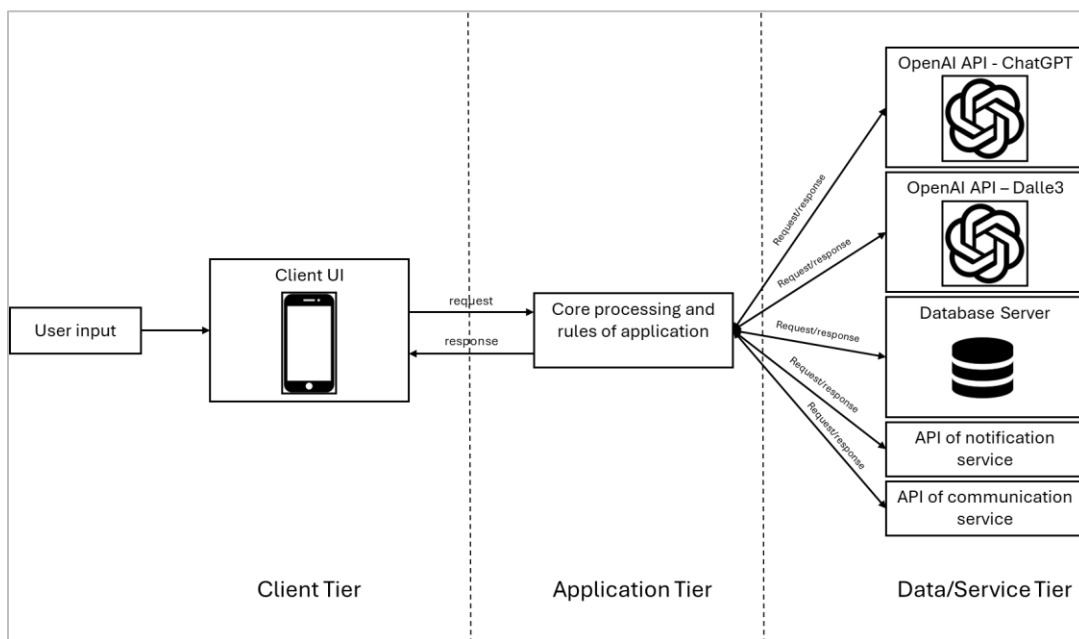


Figure 4. Three-tier architecture for the storytelling app.

## Challenges and Open Questions

- Device Compatibility - The application should be compatible with various smartphones and tablets, which is why we intend to use a cross-platform framework for development.
- Storage - storing stories with pictures can be challenging as pictures will occupy more memory than plain text. Relying on free data storage will limit the amount of content we can initially store. The solution is to implement appropriate compression techniques and strategies like lazy loading or preloading content in the background for a better UX.
- API limitations - Free/open-source APIs will have usage limits and restrictions. We will monitor API usage and implement caching strategies to reduce the number of API calls. We will explore various API options and consider using paid APIs in the next phase of development.
- Scalability issues - As the user base grows, the app may experience scalability challenges, such as increased server load and database management issues. We will try to use scalable cloud infrastructure services like AWS, implement horizontal scaling techniques, and optimize database queries for performance.
- Data Security and Privacy - especially once monetization strategies are implemented, store user data with proper encryption strategies.
- Offline functionality - users may not always be connected to the internet, and some may even prefer reading in offline mode. Implement offline functionality by caching content locally on the device, allowing users to download stories for offline reading, and syncing data when the device reconnects to the internet.
- Monitoring for inappropriate content - AI generated content needs to be moderated and it may be challenging to classify content as inappropriate. We will implement content monitoring strategies, post clear community guidelines, allow options to report inappropriate content, and try to incorporate parental controls.