

# Software Requirements Document

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	Product Perspective	Product Functions	User Characteristics	Use case Definitions	Constraints	Use Case Diagram	Non-Functional requirements	User Interfaces	Software Interfaces
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## 1. Product Perspective

IdeaPulse is a standalone, browser-based Progressive Web Application (PWA) that functions without needing a backend or login system. It stores all data locally using localStorage enabling fully offline usage. It fits in as an individual tool, not part of a larger suite.

## 2. Product Functions

- Create and save ideas with mood and tags
- Display a list of all saved ideas
- Visualize mood statistics in an Insight view
- Clear all saved data via Settings
- Navigate between pages via responsive navbar
- Operate offline using PWA capabilities

## 3. User Characteristics

- **Age Range:** 16–40
- **Target Users:** Creators, students, writers, entrepreneurs

- **Technical Skill:** Basic browser or app usage suffices
- **User Type:** Anonymous, no login required

## 4. Constraints

- Runs only on modern browsers (Chrome, Edge, Safari) or phones
- Stores data only in localStorage (no server/database)
- No user authentication or syncing
- Offline-first PWA approach, no cloud fallback

## 5. System Features (Use Case Based)

### Use Case 1: Add Idea

- **Actor:** User
- **Goal:** Save a new idea with metadata
- **Preconditions:** App is open and input field is available
- **Main Flow:**
  1. User types an idea
  2. Selects a mood
  3. Adds optional tags
  4. Clicks 'Save'
  5. Idea appears in list and is stored in localStorage
- **Postconditions:** Idea is saved and visible

### Use Case 2: View Ideas

- **Actor:** User
- **Goal:** See past saved ideas
- **Preconditions:** At least one idea exists
- **Main Flow:**
  1. User navigates to homepage
  2. App loads data from localStorage
  3. Displays list with date, mood, and tags
- **Postconditions:** Ideas are visible in scrollable list

### Use Case 3: Mood Insight

- **Actor:** User
- **Goal:** Understand emotional patterns from saved ideas
- **Preconditions:** Ideas with mood tags are present

- **Main Flow:**
  1. User navigates to Insights page
  2. App aggregates moods
  3. Displays data in pie/bar chart
- **Postconditions:** Visual feedback is shown

#### Use Case 4: Clear Data

- **Actor:** User
- **Goal:** Reset all data
- **Preconditions:** At least one idea is stored
- **Main Flow:**
  1. User opens Settings
  2. Clicks 'Clear All Data'
  3. localStorage is cleared
- **Postconditions:** App resets to empty state

## 6. Non-Functional Requirements

Category	Requirement
Usability	Responsive and mobile-friendly UI, intuitive for all experience levels
Performance	Idea creation and list updates must complete under 500ms
Portability	Works on mobile and desktop browsers without install
Reliability	Data must persist across sessions and refreshes using localStorage

## 7. User Interfaces

- **Home Page:** Idea input box, mood & tag selectors, idea list
- **Insights Page:** Mood distribution graph (e.g. pie or bar chart)
- **Settings Page:** Single button to clear all saved data
- **Navigation:** Top or bottom bar with icons/links to each screen

## 8. Software Interfaces

- No external APIs or backend services used
- All data handled via browser-native JavaScript localStorage

## 9. Use Case Diagram

