

# Reflect AI —Design Document

## Overview

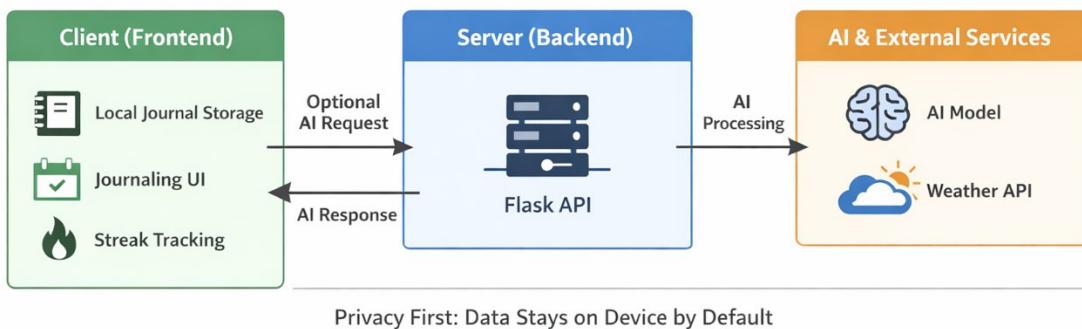
Reflect AI is a privacy-first AI journaling app that helps users write daily reflections, track mood trends, and receive AI-powered writing suggestions. Entries stay local by default.

## Key Features

- Calendar-based journaling
- AI rewrite + reflection prompts
- Mood + theme insights dashboard
- Streak tracking + achievements
- Export/import backup system
- Weather context integration

## Architecture

- Frontend: HTML/CSS/JavaScript
- Backend: Flask REST API
- AI Layer: Groq/OpenAI-style LLM calls
- Storage: Local JSON persistence
- External API: Open-Meteo weather



## Design Choices

### Local First Storage

Journal entries are stored locally using a JSON based structured

#### Reasoning

- Protects sensitive personal data
- Builds strong user trust
- Simplifies deployment and infrastructure

#### Tradeoff

- No automatic multi device synchronization

### Lightweight Full Stack

The application uses a Flask backend paired with a vanilla JavaScript frontend.

#### Reasoning

- Faster development during a hackathon
- Minimal dependencies and tooling
- Easier debugging and deployment

## **Assistive AI Design**

AI is used to support reflection rather than generate content autonomously.

### **Reasoning**

- Preserves the user's authentic voice
- Reduces hallucination and overreach risk
- Ensures predictable and safe outputs

## **Gentle Habit Building**

The system encourages consistency through streaks and positive reinforcement instead of aggressive gamification.

### **Reasoning**

- Encourages regular reflection without pressure
- Aligns naturally with journaling behavior

## **Privacy and Security**

- Journal content stays local unless AI is explicitly triggered
- AI calls are always user initiated
- Full data ownership through import and export functionality

## **Why It Stands Out**

Reflect AI combines full-stack engineering, real AI integration, and privacy-first design. It delivers both emotional value and technical depth.

## **Future Extensions**

- Encrypted journaling
- On-Device AI
- Cloud sync + user accounts
- Mobile app version
- Deeper behavioral insights