Business Requirements Document (BRD):

Digital Dream Journal with AI Interpretation

Project: LucidVerse

1. Introduction:

This document describes the functional and non-functional requirements of the "Digital Dream Journal with AI Interpretation" functionality within the LucidVerse application. The goal is to guide the development of a solution that allows users to upload dreams and receive personalized AI-based interpretations.

2. Business Need

In the current context, more and more users - especially young people and adults concerned about psychological well-being - are looking for accessible methods of introspection and self-discovery. The dream, as a personal source of subconscious wisdom, is increasingly recognized as a valuable tool for reflection, but there is currently no dedicated digital application that combines dream journaling with personalized interpretation, while ensuring privacy and ease of use.

To validate this need, an online survey was conducted. The data collected revealed the following relevant findings:

- 81 % say dreams influence their emotional state
- 62% of respondents are interested in a reminder-type feature for recording dreams immediately after waking up.
- 75% are interested or very interested in an app that combines dream journaling with AI interpretation
- 61% of respondents are interested in a personal dream profile feature, with in-depth analysis of emotions, symbols, and their recurrence.

In parallel, existing applications on the market offer limited solutions - either simple text logs or generic interpretations without the user's personal context. This void creates the opportunity for a truly differentiating functionality: **an AI-assisted Digital Dream Journal** that delivers:

- interpretations based on your own history
- interactive visualizations (graphs, emotional maps)
- and secure experience (offline + E2E encryption)

Therefore, the **business need** is to develop comprehensive and modern functionality that supports:

- User retention through perceived value
- satisfaction through clarity and personalization
- creating a solid foundation for further development (coaching, tutoring, communities)

3. Business requirements

- The user must be able to upload daily dreams in text and/or audio format.
- The user shall receive relevant AI interpretations.
- The user shall be able to visualize emotions and symbols in dreams.

4. Functional requirements

1. **Dream Entry:**
    - The user can manually enter dreams in text format.
    - The user can record audio dreams, which are automatically transcribed into text.
    - The date and time of the dream are saved automatically but can be manually edited.
    - The user can enable/disable and configure frequency of a morning reminder for dreams entry.

2. **AI Dream Analysis:**
    - Upon saving the dream, the application automatically analysis its content and identifies symbols, dream type and emotional tones.
    - Each dream receives an automatic classification based on AI Analysis: dream category, emotional tone and key symbols.

3. **Personal Dream Profile:**
    - Based on recorded dreams the system builds a personal dream profile (ex. Recurring dream types, symbols, emotions – with a timeline showing emotional evolution).
    - The profile updates automatically as the user logs new dreams.

4. **Personalized Interpretation:**
    - The AI engine provides an automatic interpretation of each dream, corelated with the user's previous dream history.
    - The interpretation considers recurring patterns and the user's emotional context.

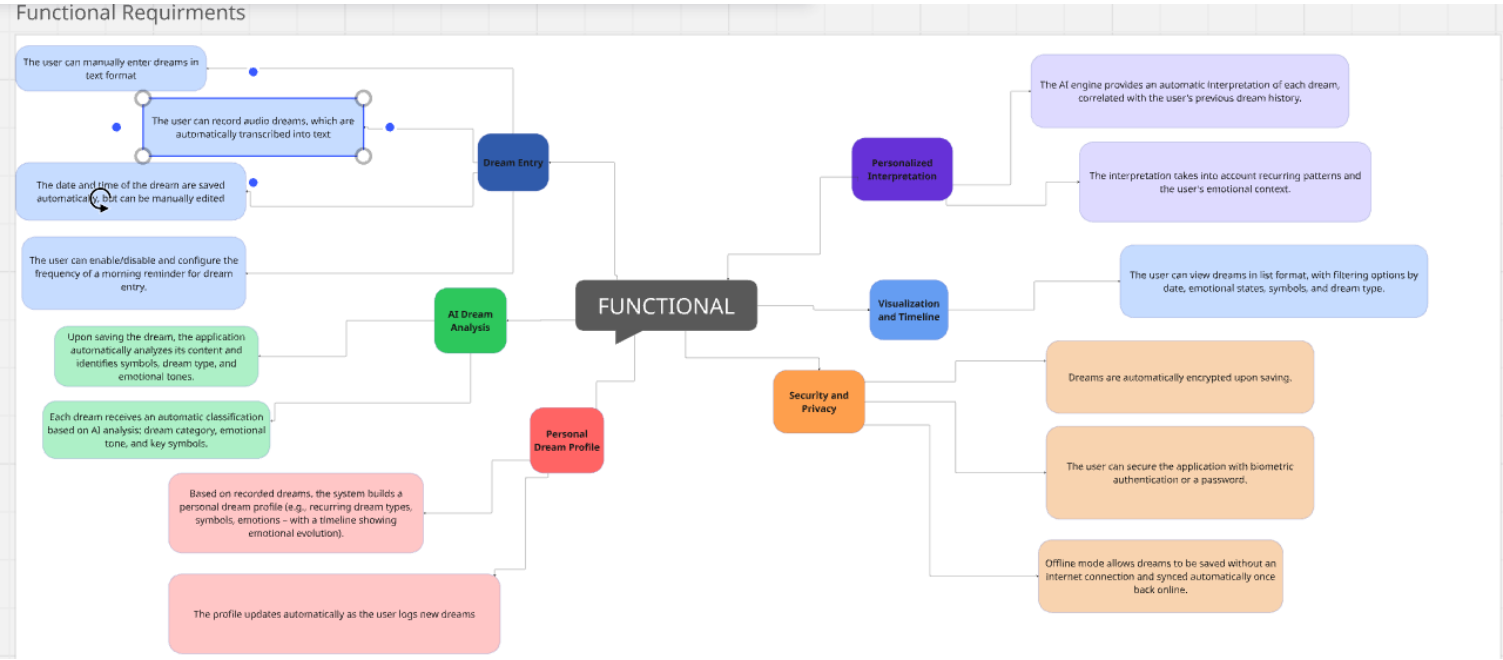
5. **Visualization and Timeline:**

   - The user can view dreams in list format, with filtering options by date, emotional states, symbols and dream type.

6. **Security and Privacy:**

   - Dreams are automatically encrypted upon saving.
   - The user can the application with biometric authentication or a password.
   - Offline mode allows dreams to be saved without an internet connection and synced automatically once back online.

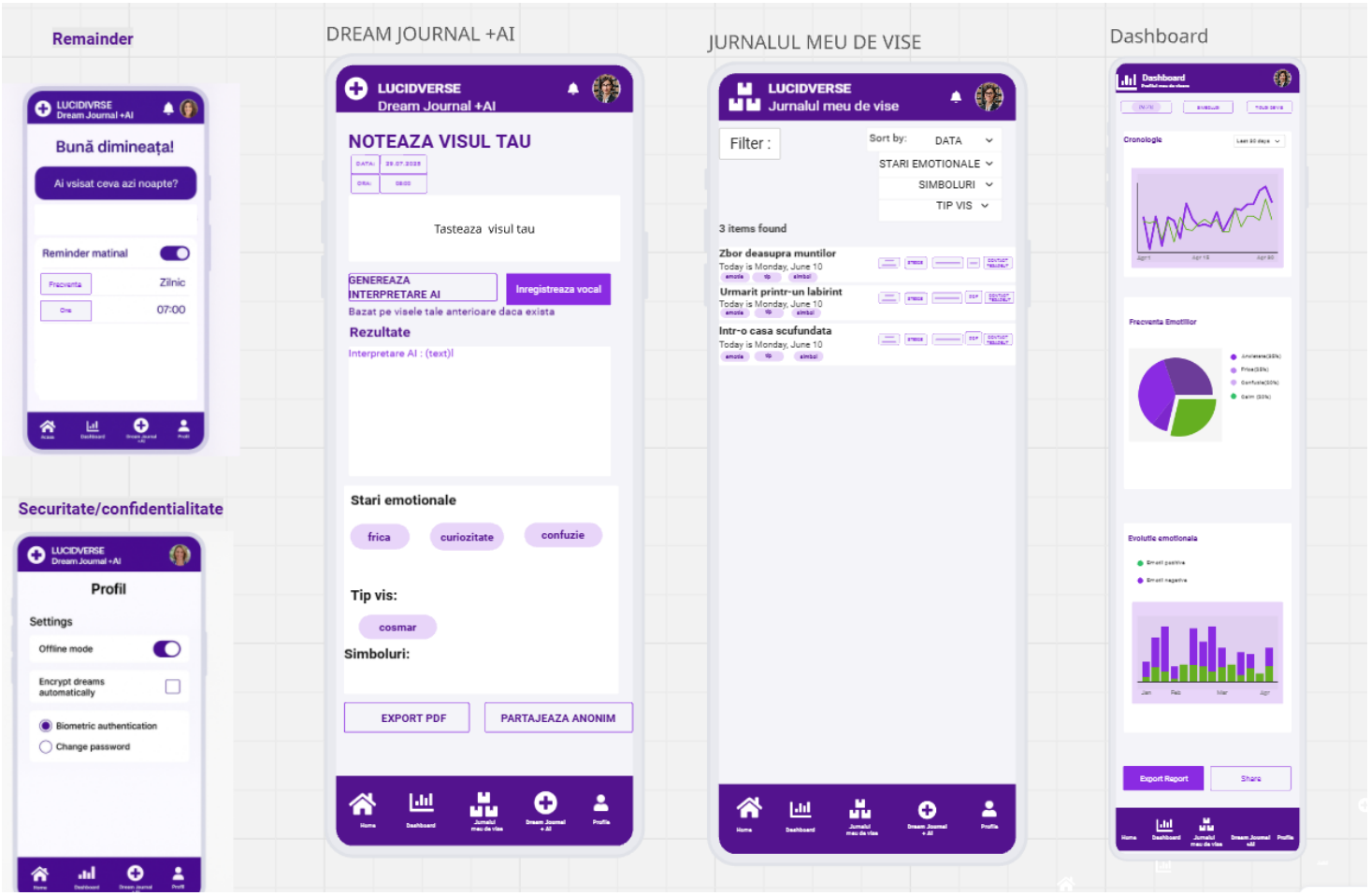
Functional requirements in Miro:



Link Miro:

https://miro.com/app/live-embed/uXjVJetiIpY=/?embedMode=view_only_without_ui&moveToViewport=-1446%2C-788%2C3717%2C1858&embedId=955610591621

5. Mockups


Remainder
LUCIDIVRSE
Dream Journal +AI
Bună dimineața!
Ai vsisat ceva azi noapte?
Reminder matinal
Frecventa
Zilnic
Ora
07:00
Securitate/confidentialitate
LUCIDVERSE
Dream Journal +AI
Profil
Settings
Offline mode
Encrypt dreams automatically
Biometric authentication
Change password
DREAM JOURNAL +AI
LUCIDVERSE
Dream Journal +AI
NOTEAZA VISUL TAU
Tasteaza visul tau
GENEREAZA INTERPRETARE AI
Inregistreaza vocal
Bazat pe visele tale anterioare daca exista
Rezultate
Interpretare AI : (text)l
Stari emotionale
frica
curiozitate
confuzie
Tip vis:
cosmar
Simboluri:
EXPORT PDF
PARTAJEAZA ANONIM
JURNALUL MEU DE VISE
LUCIDVERSE
Jurnalul meu de vise
Filter :
Sort by:
DATA
STARI EMOTIONALE
SIMBOLURI
TIP VIS
3 items found
Zbor deasupra muntilor
Today is Monday, June 10
Urmarit printr-un labirint
Today is Monday, June 10
Intr-o casa scufundata
Today is Monday, June 10
Dashboard
Cronologie
Frecventa Emotiilor
Evolutie emotionala
Export Report
Share

6. Non-Functional Requirements

1. **Performance:**

    - The AI analysis must return results (symbols, emotions, interpretation) within a maximum of 5 seconds.
    - The application must run smoothly on modern Android and iOS devices.

2. **Usability:**

    - The interface must be intuitive, accessible, and optimized for use immediately after waking up (ex. large fonts, dark mode, large buttons)
    - All core functionalities must be accessible in no more than 3 steps.

3. **Scalability:**

    - The application must support increased traffic (ex. 10.000 + active users/month) without any degradation in performance.

4. **Maintainability:**

    - Automatic backup and data restauration must remain functional regardless of app updates.
    - Ongoing compatibility with cloud services (Google Drive, iCloud) must be ensured, including lossless synchronization in case of reinstallation or device change.
    - A technical support channel (e-mail or in-app contact form) must be active for reporting bugs or submitting improvement requests.

5. **Security:**

    - All user data (dreams, interpretations, profiles) must be end-to-end encrypted.
    - The application must be GDPR-compliant – users can request permanent deletion of their data at any time.

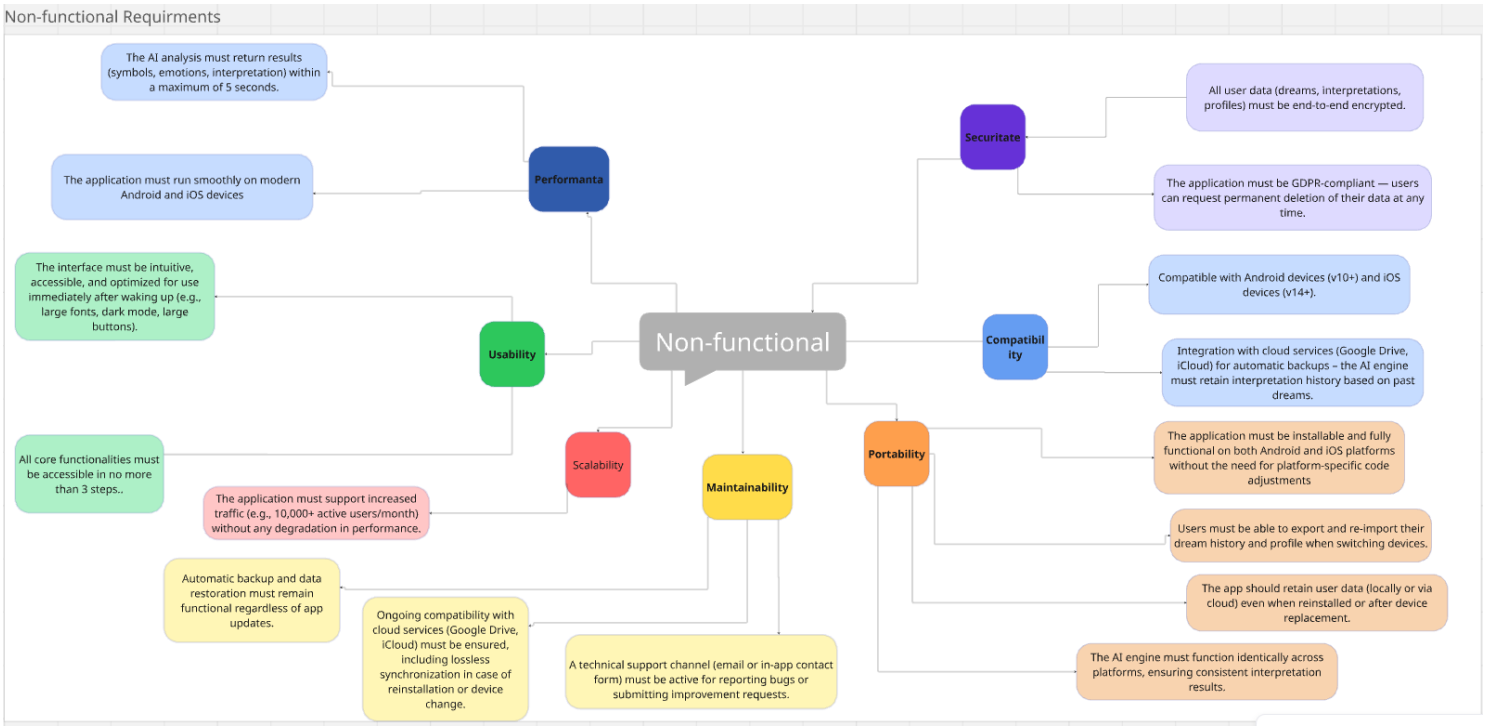
6. **Compatibility:**

    - Compatible with Android devices (v10+) and iOS devices (v14+).
    - Integration with Cloud Services (Google Drive, iCloud) for automatic backups – the AI engine must retain interpretation history based on passed dreams.

7. **Portability**

- The application must be installed and fully functional on both Android and iOS platforms without a need for platform specific code adjustments.
- Users must be able to export and re-import their dream history and profile when switching devices.
- The app should retain user data (locally or via cloud) even when reinstalled or after device replacement.
- The AI engine must function identically across platforms, ensuring consistent interpretation results.
- The offline mode must allow dreams to be saved without an internet connection and automatically synced later.

Non - Functional requirements in Miro:



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7. Business Rules

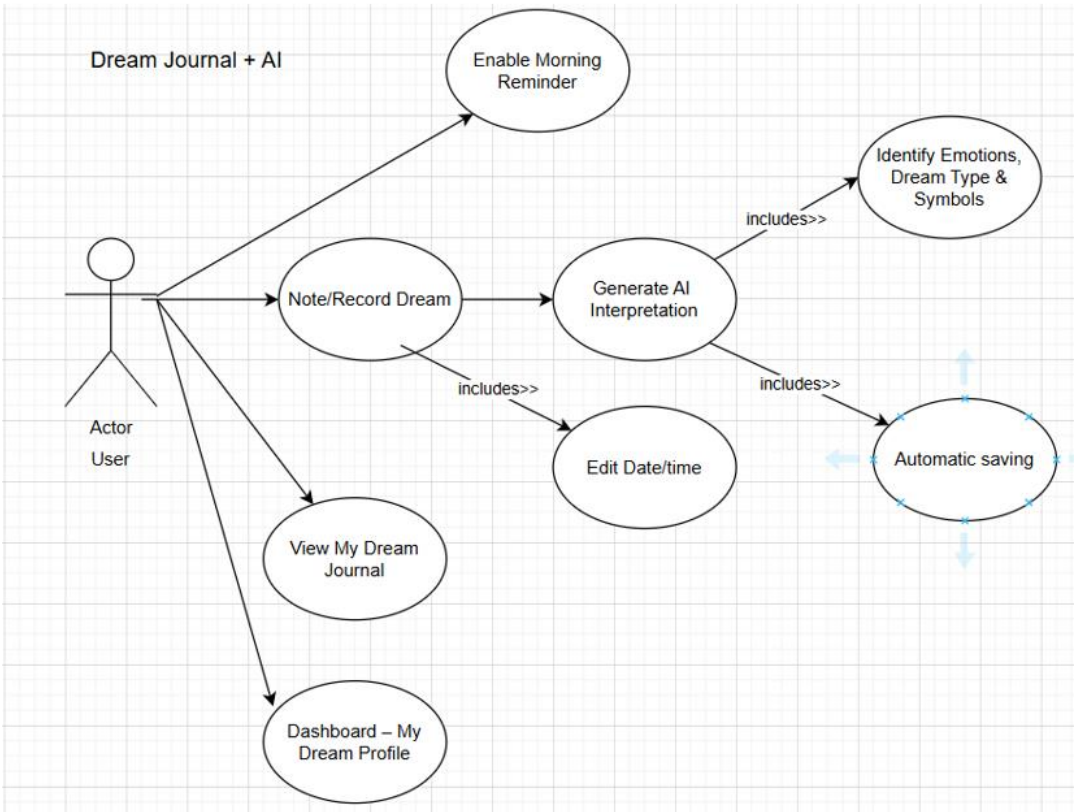
- Dreams must be saved locally + cloud with consent only.
- Ensuring constant dream capture by triggering a smart reminder, only displayed in the morning at a preset interval.
- A dream can only be interpreted once per day/count. (To avoid AI abuse or inconsistent results).

8. Diagrams / Flowchart

- Use Case Diagram: "Dream capture + AI Interpretation"

Link Diagram:

https://app.diagrams.net/?splash=0#G17tN41Km_4cNzWBHWkDNx6vB1RhaUml6o#%7B%22pageId%22%3A%227S27U2OcQcjLhrs4n_md%22%7D



USE CASE NAME: DREAM JOURNAL WITH AI INTERPRETATION BY LUCID DREAM

1. **USE CASE DESCRIPTION: Note / Record Dream**

ID Use Case: UC01

Description: Allows the user to enter a dream either by text or audio recording. The dream is then prepared for AI interpretation.

Actors: User

Preconditions: The user is logged into the application.

The user is on the 'Write down your dream' screen.

Post conditions / Success guarantees:

The dream is entered, but only saved when the AI interpretation is generated.

Main Success Scenario (Happy Flow):

1. The user accesses the 'Write down your dream' screen.
2. The user types or records the dream.
3. The system pre-completes the date/time.
4. The system offers the option to edit the date/time.
5. The dream is saved and transmitted to the AI module.

Exceptional Scenarios:

User activates Morning Reminder to be notified to write in the diary.

Alternate Scenarios:

1. Edit Date/ Time
2. Generate AI Interpretation

2. **USE CASE DESCRIPTION: Generate AI Interpretation**

ID Use Case: UC02

Description: The system analyzes the recorded dream and generates an AI-based interpretation, extracting key symbols, emotional labels and dream type.

Actors: User

Preconditions: A valid dream has been registered.

Post conditions / Success guarantees:

The interpretation is stored and displayed to the user.

Main Success Scenario (Happy Flow):

1. The user triggers the AI interpretation generation.
2. The system includes date/time editing if not already set.
3. The AI processes the dream content.
4. The system displays:
    - o Interpretation text
    - o Detected symbols
    - o Emotional labels
    - o Dream type
5. The interpretation is saved.
6. The data resulting from the AI interpretation is automatically added to the Personal Dreaming Profile.

Exceptional Scenarios:

- Identify Emotions, Dream Type & Symbols
- Auto Save
- Edit Date/Time

3. **USE CASE DESCRIPTION: View My Dream Journal**

ID Use Case: UC03

Description: The user can see the history of previously recorded dreams, filtered by date, type, emotion and symbols.

Actors: User

Preconditions: The user has at least one dream saved.

Post conditions / Success guarantees:

Dream data is accessible and can be filtered.

Main Success Scenario (Happy Flow):

1. The user accesses the Dream Log screen.
2. The system displays the saved entries.
3. The user browses and filters the contents.

Exceptional Scenario:

1. No dream saved.
2. Filter returns no result.

Alternate scenario:

1. User applies filters before viewing entries.
2. No filter applied.

4. **USE CASE DESCRIPTION: Dashboard - My Viewing Profile**

ID Use Case: UC04

Description:
Displays aggregated statistics and insights about user's dreaming patterns based on AI interpretations.

Actors: User

Preconditions: There is at least one interpreted dream.

Post conditions / Success guarantees:

The user sees visual representations of trends and data.

Main Success Scenario (Happy Flow):

- The user accesses the dashboard.
- The system aggregates the interpreted dream data.
- The system displays:
  - Most common symbols
  - Emotional tendencies
  - Frequency of dream types
  - Activity maps (heatmaps)

Exceptional Scenario:

- No interpreted dreams available.
- No interpretation service is available.

Alternate scenario:

- User filter dashboard data by period.

5. **USE CASE DESCRIPTION: Edit Date/Time**

Use Case ID: UC05

Description: Allows the user to edit the pre-completed date and time before the dream is saved.

Actors: User

Preconditions: User is in the process of saving or editing a dream.

Post conditions / Success guarantees:

The saved dream contains a customized date/time.

Main Success Scenario (Happy Flow):

1. User sees date/time precompleted.
2. User changes date or time as needed.
3. The system validates the input.
4. The dream is saved with the updated values.

Exceptional Scenario:

- Invalid date/ time format.
- Date / time in the future.

Alternate scenario:

- User resets date / time to current system time.

6. **USE CASE DESCRIPTION: Enable Morning Reminder**

Use Case ID: UC06

Description: The user activates a notification functionality that reminds them to write down their dreams each morning.

Actors: User

Preconditions: User has access to application settings/reminder.

Post conditions / Success guarantees:

Daily morning notifications are active, frequency and time are set.

Main Success Scenario (Happy Flow):

1. User activates reminder option.
2. User sets the frequency
3. User sets the time
4. The system sets a daily notification.
5. The user receives the reminder the next morning.

Exceptional scenarios:

- Invalid time input.
- Notifications permissions are disabled.

Alternate scenario:

- User sets a custom reminder schedule.

9. Constraints and dependencies

- Use of open-source AI libraries
- GDPR compliance
- Cloud infrastructure dependencies

10.Acceptance criteria:

- The dream saves correctly in both formats (text, audio).
- AI interpretation is generated in <5 sec.
- The user can visualize emotion graphs by selecting the analysis period from a dropdown (ex. 7 days, 30 days, 3 months, 6 months, 1 year).
- The system displays a line graph showing the fluctuation of emotions (positive/negative) for the selected period.
- The user sees a pie chart showing the frequency of emotions detected during the selected period.
- The user sees a vertical bar graph comparing positive vs. negative emotions monthly.
- Each emotion is displayed with a specific color according to the legend.
- The user can view the emotion, symbol and dream type graphs separately through dedicated tabs.
- Data displayed in the graphs is automatically updated according to the recorded dreams.

11. Assumptions and Risks:

- Users want insight through dreams
- There is real interest in functionality

Risks:

- Low acceptability of AI interpretation
- High IA costs
- Privacy concerns
- Multilingual testing complexity