

# BDD-Behavior Driven Development

## Digital Dream Journal with AI Interpretation

### Project: LucidVerse

#### Dream Journal with AI Interpretation:

- **Epic 1:** Dream Recording (text / voice)
- **Epic 2:** Smart Reminder
- **Epic 3:** AI Interpretation
- **Epic 4:** Personal Dream Profile
- **Epic 5:** Visualization and Timeline
- **Epic 6:** Security and Privacy

#### Scop

It allows the user to record dreams in text or audio format, receive an automatic interpretation with the help of AI, and receive a personalized dreaming profile based on their dreaming history.

#### End User

End user - person interested in better understanding their recurring dreams and emotions.

#### Link JIRA:

<https://mariapanait96.atlassian.net/jira/software/c/projects/LUCID/boards/101/timeline?selectedIssue=LUCID-9>

#### Epic 1: Dream Recording

##### User Story 1 - Enter dream in text format

As a user,

I want to be able to enter my dream in a text field,

So that I can receive automatic dream interpretation by AI.

## Acceptance Criteria – Gherkin format

### Scenario: User enters dream in text format

- Given** the user is on the "Record Dream" screen
- And** the user enters the dream text in the dedicated input field
- When** the user clicks the "GENERATE AI INTERPRETATION" button
- Then** the dream is saved in the application
- And** a detailed interpretation of the dream is displayed in the "Results" section
- And** the detected symbols are displayed in the "Symbols" section
- And** the identified emotions are displayed in the "Emotional States" section
- And** the type of dream is displayed in the "Dream Type" section

## User Story 2 - Voice dream recording

As a user,

I want to be able to record the dream in audio format,

So that the application can automatically transcribe and analyze it.

## Acceptance Criteria – Gherkin format

### Scenario: User records a dream by voice

- Given** the user is on the "Record Dream" screen
- When** the user presses the "Record Voice" button
- And** finishes the recording by releasing the button
- Then** the application transcribes the dream
- When** the user clicks the "Generate AI Interpretation" button
- Then** the dream is saved in the application
- And** a detailed interpretation of the dream is displayed in the "Results" section
- And** the detected symbols are displayed in the "Symbols" section
- And** the identified emotions are displayed in the "Emotional States" section
- And** the dream type is displayed in the "Dream Type" section

### User Story 3 - Dream date and time

As a user,

I want the date and time of the dream to be automatically pre-filled

So that I can save time, but still have the option to manually adjust them if needed.

#### Acceptance Criteria – Gherkin format

##### Scenario 1: Automatic pre-filling and possibility to change date and time

**Given** the user accesses the "Write down your dream" page

**And** the fields "Date" and "Time" are pre-filled with the current date and time

**When** the user manually edits the date or time

**And** presses the "Generate AI Interpretation" button

**Then** the application saves the dream with the date and time entered by the user

**And** this information appears correctly in the personal dream profile

##### Scenario 2: User does not manually edit date and time

**Given** the user accesses the "Write down your dream" page

**And** the fields "Date" and "Time" are pre-filled with the current date and time

**When** the user does not make any changes to these fields

**And** presses the "Generate AI Interpretation" button

**Then** the application saves the dream with the current date and time from the moment of interpretation generation

**And** this information appears correctly in the personal dream profile

### User Story 4 - AI interpretation generation (emotions)

As a user,

I want to receive an automatic interpretation of my dream after saving it,

And I want the symbols, dream type, and detected emotions to be clearly displayed,

So that I can better understand the meaning and components of my dream.

## Acceptance Criteria – Gherkin format

### Scenario: Display interpretation and components analyzed by AI

- Given** that the user has entered a valid dream (text or audio transcript)
- When** the user completes saving the dream by pressing the "Generate AI Interpretation" button
- Then** the system automatically generates a textual interpretation of the dream
- And** the identified symbols are displayed in a dedicated section
- And** the type of the detected dream is displayed in a dedicated section
- And** the emotions associated with the dream are displayed in a dedicated section

## Epic 2: Smart Reminder

### User Story 1 - Smart reminder notifications

As a user,  
I want to be able to enable or disable the morning reminder,  
and configure the time and frequency at which it appears,  
so that I receive notifications in the morning reminding me to record my dreams.

## Acceptance Criteria – Gherkin format

### Scenario1: Activate and configure reminder

- Given** that the user accesses the notification icon (bell) in the application
- And** the configuration options are displayed: enable/disable, frequency, time
- When** the user activates the reminder
- And** sets a valid frequency (e.g. daily)
- And** enters the desired time in the range 05:00-12:00
- Then** the application saves the settings
- And** the reminder is scheduled according to the configuration

## Scenario 2: Display the notification on your phone

**Given** that the reminder is active

**And** the configured time has been reached

**When** the user is connected to the internet, or the app is running in the background

**Then** the app sends a push notification

**And** the message of the notification is: "Did you dream something last night? Remember to write down your dream."

## Epic 3: AI Interpretation

### User Story 1 – Standard Interpretation (first dream / no history)

As a user,

I want the application to automatically analyze the symbols, dream type, and emotions,  
so that I can receive a general interpretation without manually entering this information.

### Acceptance Criteria – Gherkin format

#### Scenario: Generating AI interpretation for the first dream

**Given** the user has entered a valid dream

**When** they press "Generate AI Interpretation"

**Then** the application analyzes the symbols, dream type, and emotions

**And** displays the results in a clear and structured format

**And** generates a general interpretation of the dream

### User Story 2 – Personalized Interpretation (based on history)

As a user,

I want the interpretation of my dream to take into account my previously recorded dreams,  
so that I receive a more relevant explanation tailored to me.

## Acceptance Criteria – Gherkin format

### Scenario: Generating personalized interpretation based on history

Given the user has at least one previously saved dream  
And the history is analyzed by the AI  
When they save a new dream and request interpretation  
Then the AI compares the symbols, emotions, and dream type with previous ones  
And provides a personalized interpretation  
And if the history is insufficient, a standard interpretation is provided

## Epic 4: Personal Dream Profile

### User Story 1 - Visualizing your dreaming profile

As a user,  
I want the application to display a visual profile based on my previous dreams,  
including dominant symbols, dream types, and the evolution of emotions,  
so that I can better understand recurring patterns and emotional states over time.

## Acceptance Criteria – Gherkin format

### Scenario 1: Displaying the dreaming profile in the dashboard

**Given** that the user has entered at least one saved dream  
**When** the user accesses the section "Dashboard-My dream profile"  
**Then** the application automatically displays the available statistics: emotion, symbol, dream type

### Scenario 2: Automatic profile update after a new dream

**Given** that the user adds a new dream  
**When** the dream is saved and processed by the AI  
**Then** the dashboard is automatically updated with the new data  
**And** the graphs reflect the changes (e.g. the weight of an emotion increases)

### Scenario 3: Filtering dashboard data

**Given** that the user is in the dashboard

**When** the user selects from the dropdown a time interval (e.g. last 30 days)

**Then** the graphs displayed are updated for the selected interval

## Epic 5: Visualization and Timeline

### User Story 1 - View and filter dreams

As a user,

I want to view a structured journal of my dreams,  
with the ability to sort and filter by date, emotional state, symbols, and dream type,  
so that I can quickly access relevant content and analyze patterns in my dreams.

### Acceptance Criteria – Gherkin format

#### Scenario 1: Visualize your dream list

**Given** that the user has saved at least one dream

**When** accessing the "My Dream Diary" section

**Then** the application displays the saved dreams in descending chronological order

#### Scenario 2: Sorting dreams

**Given** that the list of dreams is displayed

**When** the user selects an option from the "Sort by" menu (ex. Date)

**Then** the application reorders the dreams according to the chosen option

#### Scenario 3: Filtering dreams by specific criteria

**Given** that the list of dreams is displayed

**When** the user selects filters (ex. emotional state = "fear", symbol = "water", dream type = "nightmare")

**Then** the application updates the list and displays only the dreams that meet all the selected criteria

#### Scenario 4: View the tags attached to each dream

- Given** the user is viewing the dream journal in list view
- When** the dream entries are displayed
- Then** each dream entry should show all associated tags
- And** the tags should be styled as visually distinct elements

## Epic 6: Security and Privacy

### User Story 1 - Security and privacy settings

As a user,  
I want to be able to enable offline mode, automatic encryption of dreams and biometric or password authentication,  
so that I can protect my privacy and securely access my dream journal, even without an internet connection.

#### Acceptance Criteria – Gherkin format

##### Scenario 1: Go offline

- Given** that the user accesses the section "Profile" > "Settings"
- When** he activates the option "Offline mode"
- Then** the application allows to save dreams locally, without internet connection
- And** the dreams will be synchronized automatically when the connection is restored

##### Scenario 2: Enable automatic encryption

- Given** that the user accesses the "Profile" > "Settings" section
- When** he checks the "Encrypt dreams automatically" option
- Then** all saved dreams are encrypted end-to-end
- And** dreams cannot be accessed without valid authentication



### Scenario 3: Setting up the authentication method

**Given** that the user accesses the section "Profile" > "Settings"

**When** he selects "Biometric authentication" or "Change password"

**Then** the application activates the chosen method for secure access to the application

**And** the user will have to authenticate at the next login

### Scenario 4: Enabling biometric authentication

**Given** that the user accesses the "Profile" section and the "Biometric authentication" option

**When** the user selects "Biometric authentication"

**Then** the application initializes the biometric authentication process through the operating system

**And** if the authentication is successful, the application saves the biometric method as the authentication method

**And** the next time the application is opened, the user will be automatically authenticated by biometrics

### Scenario 5: Change password

**Given** that the user accesses the "Profile" section and selects "Change password"

**When** the application redirects to a form with 3 fields (current password, new password, confirmation)

**And** the user fills in all fields correctly

**Then** the application validates and saves the new password

**And** this becomes the main authentication method for the next login