### 5.4 Journal Feature

**Feature Goal**: Provide a personal space for users to record their philosophical reflections, insights, and questions, with integration to the user's history across the app.

#### System Architecture

**Frontend Components**:

* JournalScreen.tsx: Main journal view
* JournalEntryEditor.tsx: Create/edit entries
* JournalEntryList.tsx: List of entries
* UserHistoryTab.tsx: User activity history

**Backend Components**:

* journal\_service.py: Journal entry management
* history\_service.py: User history aggregation

**Database Models**:

* journal\_entries: User journal entries

CREATE TABLE journal\_entries (

id UUID PRIMARY KEY DEFAULT uuid\_generate\_v4(),

user\_id UUID NOT NULL REFERENCES users(id),

title VARCHAR(255) NOT NULL,

content TEXT NOT NULL,

is\_private BOOLEAN DEFAULT TRUE,

created\_at TIMESTAMP WITH TIME ZONE DEFAULT NOW(),

updated\_at TIMESTAMP WITH TIME ZONE DEFAULT NOW()

);

* journal\_tags: Tags for entries

CREATE TABLE journal\_tags (

id UUID PRIMARY KEY DEFAULT uuid\_generate\_v4(),

journal\_entry\_id UUID NOT NULL REFERENCES journal\_entries(id),

concept\_id UUID NOT NULL REFERENCES concepts(id),

created\_at TIMESTAMP WITH TIME ZONE DEFAULT NOW(),

UNIQUE(journal\_entry\_id, concept\_id)

);

* user\_history: Aggregated user activity

CREATE TABLE user\_history (

id UUID PRIMARY KEY DEFAULT uuid\_generate\_v4(),

user\_id UUID NOT NULL REFERENCES users(id),

activity\_type VARCHAR(50) NOT NULL,

activity\_id UUID NOT NULL,

metadata JSONB,

created\_at TIMESTAMP WITH TIME ZONE DEFAULT NOW()

);

#### API Endpoints

* GET /api/v1/journal: Get user's journal entries
  + Query Parameters:
    - limit: Number of entries to return (default: 20)
    - offset: Pagination offset (default: 0)
    - concept\_id: Filter by concept tag
  + Response:

{

"entries": [

{

"id": "550e8400-e29b-41d4-a716-446655440000",

"title": "Reflections on Stoicism",

"content\_preview": "...",

"created\_at": "2025-05-28T15:30:00Z",

"updated\_at": "2025-05-28T15:30:00Z",

"tags": [

{

"id": "123",

"name": "stoicism"

},

...

]

},

...

],

"total": 42,

"limit": 20,

"offset": 0

}

* POST /api/v1/journal: Create a journal entry
  + Request:

{

"title": "Reflections on Stoicism",

"content": "...",

"is\_private": true,

"tags": ["550e8400-e29b-41d4-a716-446655440000", "550e8400-e29b-41d4-a716-446655440001"]

}

* + Response:

{

"id": "550e8400-e29b-41d4-a716-446655440000",

"title": "Reflections on Stoicism",

"content": "...",

"is\_private": true,

"created\_at": "2025-05-28T15:30:00Z",

"updated\_at": "2025-05-28T15:30:00Z",

"tags": [

{

"id": "550e8400-e29b-41d4-a716-446655440000",

"name": "stoicism"

},

...

],

"xp\_earned": 5

}

* PUT /api/v1/journal/{id}: Update a journal entry
  + Request:

{

"title": "Updated Reflections on Stoicism",

"content": "...",

"is\_private": true,

"tags": ["550e8400-e29b-41d4-a716-446655440000", "550e8400-e29b-41d4-a716-446655440001"]

}

* + Response:

{

"id": "550e8400-e29b-41d4-a716-446655440000",

"title": "Updated Reflections on Stoicism",

"content": "...",

"is\_private": true,

"created\_at": "2025-05-28T15:30:00Z",

"updated\_at": "2025-05-28T16:00:00Z",

"tags": [

{

"id": "550e8400-e29b-41d4-a716-446655440000",

"name": "stoicism"

},

...

]

}

* GET /api/v1/history: Get user's activity history
  + Query Parameters:
    - limit: Number of activities to return (default: 20)
    - offset: Pagination offset (default: 0)
    - activity\_type: Filter by activity type (ask, quest, explore, journal)
  + Response:

{

"activities": [

{

"id": "550e8400-e29b-41d4-a716-446655440000",

"activity\_type": "ask",

"title": "What is the meaning of life?",

"created\_at": "2025-05-28T15:30:00Z",

"metadata": {

"tone": "socratic",

"concepts": ["meaning", "existence"]

}

},

{

"id": "550e8400-e29b-41d4-a716-446655440001",

"activity\_type": "quest",

"title": "Completed: Introduction to Stoicism",

"created\_at": "2025-05-27T14:20:00Z",

"metadata": {

"quest\_id": "650e8400-e29b-41d4-a716-446655440000",

"xp\_earned": 100

}

},

...

],

"total": 156,

"limit": 20,

"offset": 0

}

#### User Experience Flow

1. User navigates to Journal screen with the JournalEntryList component
2. User creates new entry or edits existing one using the JournalEntryEditor component
3. User can tag entries with concepts for organization and retrieval
4. System saves entry and awards XP
5. User can view history of activities across the app in the UserHistoryTab component

#### XP Integration

* XP awarded for creating journal entries (+5 XP)
* XP awarded for maintaining daily journaling streaks:
  + 3 days: +3 XP per day
  + 7 days: +5 XP per day
  + 30 days: +10 XP per day
* Badges for journaling milestones (10, 50, 100 entries) and streaks (7, 30, 90 days)

#### Implementation Considerations

* **Rich Text Editor**: Support for formatting, lists, and potentially embedded images
* **Privacy Controls**: Options for private or public entries (future feature)
* **Export Functionality**: Ability to export journal entries as PDF or text
* **Concept Tagging**: Automatic concept suggestion based on entry content
* **Search Functionality**: Full-text search across journal entries