

# Capstone - Service Layer, Updated

## Overview

Detailed below is the outline of the service layer architecture for the MVP of 'Recommend', including the endpoints allowing the following feature and the recommendations feature.

The service layer will act as a communication bridge between React/Next.js (the front end) and Supabase/PostgreSQL (the back end).

## API Endpoints

### User Registration & Authentication

Method	Endpoint	Description
POST	/api/register	Registers a new user, creating an entry in the users table of the database
POST	/api/login	Authenticates an existing user
GET	/api/user/:id	Fetch user profile by ID
GET	/api/me	Get current user's profile
PUT	/api/me	Update current user's profile

Example Request:

POST /api/register

```
{
  "email": "alice@example.com",
  "password": "securepassword",
  "name": "Alice"
}
```

Example Response:

201 Created

```
{
  "message": "User registered successfully",
  "userId": "abc123"
}
```

## List Management

Method	Endpoint	Description
POST	/api/lists	Create a new media list
GET	/api/lists	Get all lists for current user
GET	/api/lists/:id	Get list details by ID
PUT	/api/lists/:id	Update a list
DELETE	/api/lists/:id	Delete a list

Example Request:

POST /api/register

POST /api/lists

```
{
  "title": "My Top Sci-Fi Books",
  "is_public": true
}
```

Example Response:

201 Created

POST /api/lists/abc123/items

```
{
  "media_item_id": "media456"
}
```

## List Items

Method	Endpoint	Description
POST	/api/lists/:id/items	Add a media item to a list
DELETE	/api/lists/:listId/items/:itemId	Remove a media item from a list

Example Request:

POST /api/lists/abc123/items

```
{
  "media_item_id": "media456"
}
```

## Media Items

Method	Endpoint	Description
GET	/api/media/:id	Get media item details
GET	/api/media?search=...	Search media by title/genre/type

## Following System

Method	Endpoint	Description
POST	/api/follow/:userId	Follow a user
DELETE	/api/follow/:userId	Unfollow a user
GET	/api/following	Get list of users I'm following
GET	/api/followers	Get list of users following me

Example Request:

`POST /api/follow/xyz789`

Example Error Response:

`400 Bad Request`

```
{
  "error": "You already follow this user"
}
```

## Public Lists & Discovery

Method	Endpoint	Description
GET	/api/discover/public-lists	View public lists from followed users
GET	/api/discover/recommendations	Personalized recommendation feed
GET	/api/discover/suggested-users	Suggested users based on genre overlap

## Genre Interactions

Method	Endpoint	Description
POST	/api/genres/interact	Log interaction with genre

Example Request

```
POST /api/genres/interact
{
  "genre_id": "123",
  "interaction_type": "save"
}
```

## UI Endpoint Diagram

