Capstone Project Brainstorm and API Exploration (New Ideas)

Project Idea 1: LocalLens – Community Event Finder

Description:

LocalLens helps users discover local events such as concerts, art shows, or volunteering opportunities based on their location and interests.

Key Features:

• User login and profile with interest tags (music, art, tech, food, etc.)
• Search and filter events by location and category
• Save favorite events and RSVP
• Optional: Email or SMS reminders for upcoming events

API Approach:

Combination of External + Custom API
External API: Ticketmaster Discovery API or Eventbrite API for event data
Custom API: For user authentication, interest preferences, and saved event lists

Why this idea:

This project combines data fetching, geolocation, and personalization, making it perfect for demonstrating front-end filtering, API integration, and database design skills.

Project Idea 2: RecipeRealm – Smart Recipe Generator

Description:

RecipeRealm allows users to input ingredients they have at home and generates creative recipe suggestions based on those ingredients.

Key Features:

• Ingredient-based search
• Save and rate favorite recipes
• Generate shopping lists for missing ingredients
• Optional: Suggest healthier alternatives or dietary-specific recipes (e.g., vegan, keto)

API Approach:

Combination of External + Custom API
External API: Spoonacular API or Edamam Recipe API for recipe and ingredient data
Custom API: For user authentication, saved recipes, and custom ingredient lists

Why this idea:

It's highly engaging and practical, involves dynamic data handling, and allows you to build both front-end features (recipe search & display) and a custom backend for user storage.

Project Idea 3: SkillSync – Collaborative Learning Tracker

Description:

SkillSync helps users find accountability partners and track progress while learning new skills online (like coding, design, or languages).

Key Features:

• Create a learning profile with skills and goals
• Match with others learning similar topics
• Track learning milestones and streaks
• Optional: Integrate calendar reminders or chat features

API Approach:

Primarily Custom API, with optional external integration
Custom API: For users, progress tracking, skill matching, and partnerships
External API (optional): Google Calendar API to sync learning sessions or deadlines

Why this idea:

SkillSync emphasizes collaboration, user data modeling, and matching algorithms — great for practicing backend logic, API design, and social feature development.

Project	External API	Custom API	API Examples
LocalLens	Yes	Yes	Ticketmaster / Eventbrite
RecipeRealm	Yes	Yes	Spoonacular / Edamam
SkillSync	Optional (Calendar)	Yes	Google Calendar