**CAPSTONE 2 IDEAS – Step 1**

**Capstone Idea 1**

**Tarot Card Meanings & Readings**

**Function:**

A web application that helps users learn the meanings of tarot cards and receive simple tarot readings.

**Features:**

Users can:

* Search for individual tarot cards, suits, or categories.
* View tarot card meanings along with their corresponding images.
* Receive different types of tarot readings, including:
  + Yes-or-no readings
  + One-card reading
  + Three-card reading
  + Ten-card reading (Celtic Cross)

**Basic Resources for Development:**

* **External API:** [Tarot API](https://tarotapi.dev/)
* **Tech Stack Considerations:** The application will be built using ***React*** for the frontend and ***Node.js*** for handling API requests and user interactions.

**Challenges & Solutions:**

1. **Challenge:** The external API only provides meanings for each card but does not generate full readings.  
   **Solution:** Implement an algorithm that categorizes tarot cards as *positive*, *neutral*, or *negative*. The app could assign numerical values based on card position and orientation (upright/reversed) to generate meaningful readings.
2. **Challenge:** Since my first capstone project involved creating my own API and database using JSON files and scripts to populate tables, so using an external API would showcase a broader range of expertise. **Solution:** To showcase my skills effectively, I will focus on integrating the external API efficiently, handling API responses dynamically, and implementing additional features that enhance user experience beyond what the API offers.

**Capstone Idea 2**

**Pet Finder App**

**Function:**

A web application that helps users find pets available for adoption and connect with animal welfare organizations.

**Features:**

Users can:

* Search for pets using various filters, such as **animal type, location, organization, breed, and age**.
* Search for animal welfare organizations.
* View detailed pet profiles, including **location, organization, breed, age, temperament, photos, and videos**.

**Basic Resources to build the app:**

* **External API:** [Petfinder API](https://www.petfinder.com/developers/v2/docs/#using-the-api)
* **Tech Stack Considerations:** ***React*** for the frontend and ***Node.js*** for handling API requests and user interactions.

**Challenges and Solutions**

* No major challenges identified at this time.

**Capstone Idea 3**

**Recipe Ideas App**

**Function:**

A web application that helps users discover and explore recipes from around the world.

**Features:**

Users can:

* Search for **a single recipe or multiple recipes** based on various filters, including **name, category, ingredient, main ingredient, and country of origin**.
* View detailed recipe information, including **name, cuisine type, ingredients, step-by-step directions, images, and video tutorials**.

**Basic Resources for Development:**

* **External API:** [TheMealDB API](https://www.themealdb.com/api.php)
* **Tech Stack Considerations:** ***React*** for the frontend and ***Node.js*** for handling API requests and user interactions.

**Challenges & Solutions:**

* **Challenge:** Ensuring scalability and potential for future growth.  
  **Solution:** Design a modular architecture that allows for feature expansion, such as **user-submitted recipes, meal planning, and dietary filters**.

Of the three ideas, two stand out for my application: **Idea 1, “Tarot Card Meanings & Readings,”** and **Idea 2, “Pet Finder App.”**

Given the challenges each presents, **I have decided to move forward with Idea 2, “Pet Finder App”**. The structured external API simplifies data integration while still allowing room for enhancements. This choice ensures a balance between technical complexity and practical application.