### Capstone Project Ideas

#### 

#### **1. Weather Tracker App**

* **Project Description**: An app that shows the current temperature, weather conditions (like rain or clear skies), and humidity for a user’s location or any city they input.
  + **API** **Integration**: [OpenWeatherMap API](https://openweathermap.org/api) (they offer free plans).
  + **Core Features**
    - **User Input:**
      * Text field to enter a city name.
      * Button to fetch the weather for the entered city.
    - **Weather Data:**
      * Current temperature (in Celsius or Fahrenheit).
      * Weather conditions (e.g., sunny, rainy, cloudy).
    - **Humidity level.**

#### **2. News App**

* **Project Description**: A news app that displays the latest headlines from various sources, focusing on general or category-specific news (like sports, technology, or business). The user can search for news on specific topics or select a category from a list. This app will fetch data from a news API and display brief summaries along with the source and publication date.
  + **API Integration:**
    - Use a free news API like [NewsAPI](https://newsapi.org/) or any other public news API to fetch live data.
  + **Core Features**:
    - **Top Headlines Display:**
      * Shows the latest news headlines on the home screen.
      * Each headline includes a title, brief summary, source, and publication date.
    - **Category-based News:**
      * Users can select categories like Technology, Sports, Health, etc., to filter the news.
    - **Search Functionality:**
      * Users can search for specific topics (e.g., “AI” or “World Cup”).
    - **News Detail Links:**
      * Each news item contains a link to the original article for users who want to read more.

#### **3. Meals App**

* **Project Description**: A meals app that allows users to browse, search, and explore meal recipes. Users can filter recipes by category (like breakfast, lunch, or dessert) or ingredients. Each meal includes a description, list of ingredients, and cooking instructions, along with a picture of the dish. This app leverages a public recipe API to fetch meal data and display it.
  + **API Integration:**
    - Use a public recipe API, like [TheMealDB](https://www.themealdb.com/), to fetch meal data dynamically.
  + **Core Features**:
    - **Browse Random Meals:**
      * The home screen displays a random selection of meals to inspire users.
      * Each meal card shows the meal’s name, an image, and a button to view details.
    - **Category-based Filtering:**
      * Users can filter meals by categories like Breakfast, Vegan, Seafood, or Desserts.
    - **Search by Ingredients or Meal Name:**
      * Users can search for meals by entering keywords or specific ingredients (e.g., “chicken”).
    - M**eal Details Page:**
      * **Each meal displays:**
        + Name of the dish
        + Ingredients list
        + Instructions
        + Image of the dish
      * Optional: YouTube video link for cooking instructions (if available from the API).
    - **Favorite Meals:**
      * Option to mark meals as favorites and access them easily in a “Favorites” section.