

## 1. Food Recommendation App

### Objective:

- To demonstrate ability to query data via API and perform ETL.
- To demonstrate ability to create application based on data source.
- To demonstrate infrastructure design for real production environment

### Task:

Create an application with the following requirements:

- Perform REST API call to one of the available API in the following URL:  
<https://www.themealdb.com/api.php>
- Display the number of meals based on area
  - Input: None
  - Output: Area || Number of Meals

#### *Sample Output*

Area	Number of Meals
Canadian	123
American	456

- Display the meal based on multiple ingredients search
  - Input: Array of Ingredients
  - Output: Meal ID, Meal Name, Meal Category, Meal Ingredients
- Display meal and the information such as instruction, category, and ingredients based on meal description with approximate match.
  - Input: Name of Meal Description with Regex input
  - Output: Meal ID, Meal Name, Meal Category, Meal Ingredients, Meal Instruction
- Display your own analysis/ analytics based on the data. Utilisation of the right analytics module (AI/ Machine Learning) is a plus.
- Create interface for Food Recommendation Application based on the above API calls.

### Environment:

Set up your own AWS free tier VM for the application. API call shall be made via python, front-end development and database layer can be tools of your choice.

### Submission Guideline:

- Report on how the application is developed, such as technology and infrastructure architecture, Entity-Relationship Diagram and algorithm used, and additional features beyond the requirement.
- Web URL to view your application.
- Source codes as zip file.
- Notebook shall contain codes and explanation, such as observation, analysis made, rationale of using selected libraries.
- Access to AWS environment

Score Breakdown

Category	Points
REST API Calls	30
User Interface and Customer Journey	20
Code Quality and Infrastructure Design	20
Report and Analysis	20
Machine Learning/ AI	10
Total	100