# Food Engine (Cloud Computing Final Project)

**Team Members:**

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**Background:**

In today's world, most people have placed an increasingly large amount of importance on their health and well-being. Due to the coronavirus pandemic, the daily lives of all people across the world has been disrupted like never before. Because of quarantines and stay-at-home orders, it's become very difficult for most people to stay healthy. A large number of students and working professionals have been confined to their homes due to which it's difficult for them to plan and cook their meals.

Another constraint is that quite a large number of people are not that comfortable in cooking everyday due to which they rely on food from restaurants and food trucks which are not always the healthiest available option.

**Application:**

Thus, we decided to create an online food delivery web application "Food Engine" for health-conscious people where we are trying to make the lives easier for those individuals who want to take care of their diet along with their regular work life. It is possible for users to get customized meal recommendations on the basis of their goal (lose weight, gain weight, maintain), any existing food allergies, dietary restrictions, age, health, shape and size (height, weight, body fat content).

We collect the following details from the user when they decide to sign up: (Name, Age, Sex, Phone Number, Age, Weight, Height, Activity Level, Daily Calorie Intake, Dietary Restrictions and Food Allergies). Once all these details are entered by the user, AWS Sagemaker generates meal recommendations for Breakfast, Lunch, Snack and Dinner for every day of the week. It's possible for the user to alter any of these suggestions from the dropdown menu.

In the next section, we have some predefined timings for all the meals on the basis of which they will be delivered to the customer. Again, the user has the functionality to modify these timings on the basis of their needs.

Once the customer has decided the times at which they intend to have each of their meals, they can provide their delivery address and update the billing information (credit card details). We have the option of Daily, Weekly and Monthly billing.

We have also included a simulation for live tracking where you can see the courier go towards the destination address specified by the user.

**Architecture Diagram:**
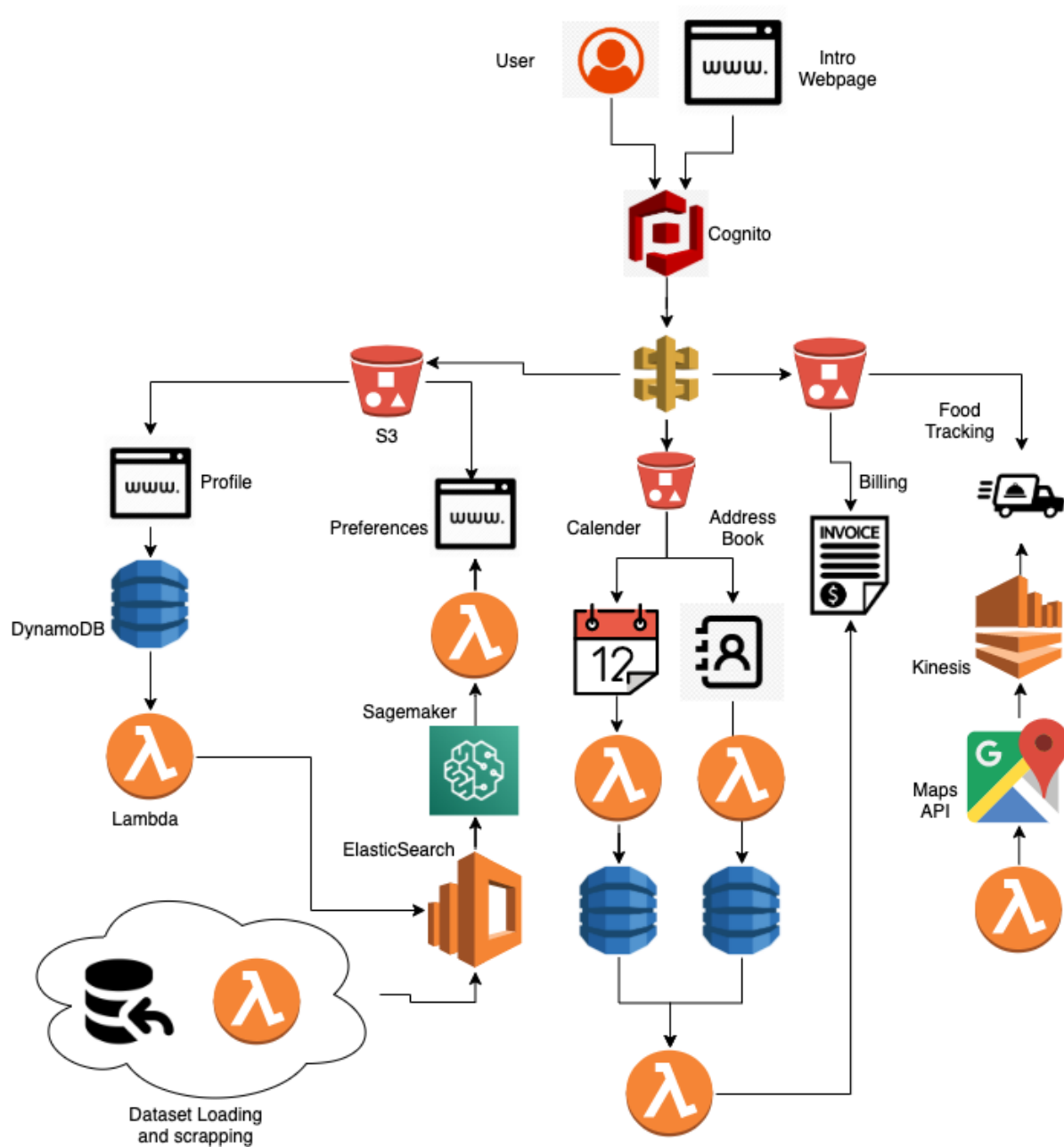
**AWS Components utilized:**

- S3
- Cognito
- Lambda
- Sagemaker
- API Gateway
- DynamoDB
- Elasticsearch
- Kinesis
- Google API

**URL for Food Engine:** https://macrochef.s3.amazonaws.com/index.html

**Github Repository:** https://github.com/Aditya-Ashtekar/Food-Engine

**Youtube Link:** https://youtu.be/LUDOes7yCtY