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## Problem Statement

A common problem for college students and households is that they have a set of ingredients, but do not know what dishes can be made from them. Many times, people get bored of eating the same things and want to try out new dishes to expand their culinary options. Chef.ai tackles this problem by taking in a set of ingredients from the user and giving them the closest recipe that can be made using them. In addition to this, chef.ai would also give computer generated recipes using machine learning (generative models). These would be completely new recipes that we have never seen before.

## Objectives

- Build a responsive website to get pre-existing or computer-generated recipes.
- Have an API that will handle communication between the user (front-end) and the algorithm (back-end)
- Build a system that allows users to search and provide the ingredients available with them.
- Provide users with an option to select between pre-existing recipes or computer-generated recipes.
- Provide users with the best possible pre-existing recipe that can be made from the available ingredients.
- Have a generative machine learning algorithm to generate the recipes.

## Stakeholders

- Us four group members
- Future users of chef.ai
- Advertisers on the website
- People / Companies who've invested in chef.ai

## **Deliverables**

- A responsive website made with Flask where users can find recipes.
- A way for users to input the ingredients they have.
- An option for user to choose between pre-existing and computer-generated recipes.
- A page for displaying the closest possible pre-existing recipe to their ingredients.
- A page for displaying the computer-generated recipes.