



Department of Computer Science & Engineering

UE17CS355 - Web Tech II Laboratory

Project Evaluation

Project Title : Recipe Generator
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Project Description

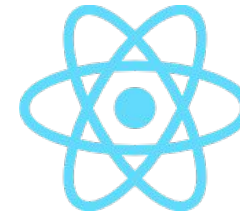
- The goal of this project is to **recommend recipes to users** based on the ingredients provided as input, that is, ingredients that they currently have on hand.
- We provide the user with two options:
 - The user can **search for recipes based on ingredients**. The user is provided with a few recipes out of which they can favourite the one they like.
 - Based on the favorite recipe we **recommend recipes to users using Content Based Filtering**.



Technologies Used

We used the following technologies to create our website:

- Frontend: React, Edamam API
- Backend: Flask, flask-sqlalchemy
- Database: SQLite
- Parser libraries: BeautifulSoup, pandas
- Intelligent Functionality: rake_nltk, pandas, sklearn





Techniques Implemented

The two techniques that we implemented in our website are:

1. RESTful APIs:

We call RESTful APIs which we have implemented using Flask which are called for displaying the favorite recipes and recommending recipes based on favorite recipes.

2. Hidden Frames:

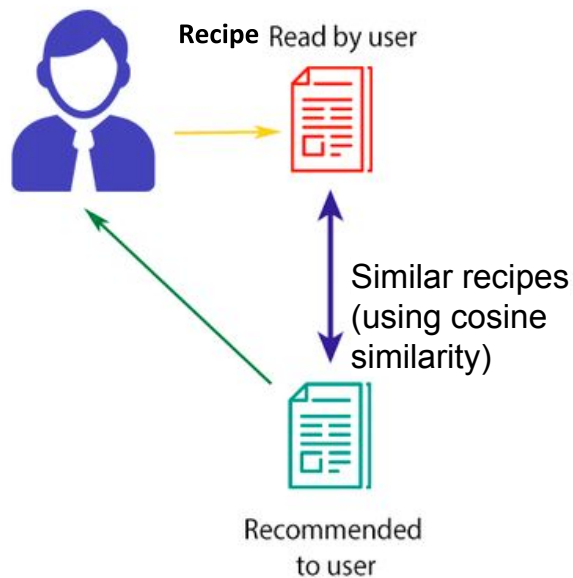
We have implemented hidden frames as the Ajax pattern while displaying the directions of the recommended recipes to the user. When the user clicks of a button labelled “View More”, the directions of the recipe are displayed in an iFrame.



Intelligent Functionality

As a part of the intelligent functionality we implemented Content Based Filtering.

CONTENT-BASED FILTERING



1. User selects a favorite recipe.
2. The recipe is passed to the REST API in the backend.
3. The REST API adds the favorite recipe to the existing database and generates bag of words using keywords for all the columns in favorite recipes.
4. Using the bag of words we generate a CountVectorizer() for the parsed dataset and favorite recipes.
5. Find the cosine similarity.
6. Pick the top 10 recipes with highest mean cosine similarity values and pass it to the user.



Thank You

