

ECE651 Project Abstract

Group 10

Background and Problem

Nowadays we cannot access sit-down cafeterias and restaurants due to COVID-19 lock-downs. Consequently, people are eating meals at home more than ever. For those who are not comfortable with cooking, ordering food online becomes a common daily activity. However, online platforms for food-ordering and delivery classify their respective options based on participating restaurants. Most restaurants generally focus on a specific cuisine or type of food. In other words, if one craves some specific ingredient (e.g. chicken) but is not sure which specific cuisine to choose, they may have a hard time navigating through online food-ordering apps.

Solution

Our proposed solution to this problem is to create a web application which will take food ingredients as input. Then, this app will suggest some meals based on the ingredients chosen, and specific restaurants that offer these suggested meals. As a result, the web-app will take ingredients as input, and it will output suggested meals and restaurants.

As a starting point, our group will create a static web-app using a manually curated list of ingredients, meals, and restaurants. Our self-imposed deadline to create a static platform is the first meeting with the professor before the midterm. After that, as we build up the platform, we are planning to enhance it by linking with some open-source data to make the platform more dynamic.

Although we have not yet finalized any specific open-source data API's that we intend to use, we are considering the following potential options:

- Linking meals and restaurants to open-source API's of online ordering platforms
- Checking local fuel prices, weather, etc. (via API) to determine which restaurants would be the most efficient delivery options
- Web-scraping specific restaurant website menus in order to optimize for prices, restaurant reputation, reviews, etc.

We are planning to use the "Evolutionary Life-Cycle Model" for our initial static prototype. At this planning stage, we have a broad sense of what the application will do, but we have not finalized all technical functionalities and use cases. Therefore, the iterative nature of this model will allow us to continually validate our implementation. It should also help reduce the risk of a final product that does not satisfy basic requirements. We will have a continuously-tested static app that converges towards a final version as technical requirements evolve. We intend to then use Agile for our dynamic web-app development stage using a Trello Kanban board.

Since our group is small (only 5 members), we will not require a large degree of formality. However, our inability to meet in person (due to pandemic lockdown restrictions) will require some level of formality to effectively communicate requirements, designs, etc. via our virtual meetings. We intend to hold 2 meetings per week: one hour-long discussion, and a second brief mid-week scrum.

Group members:

- (i) Yekta Demirci (20837581)
- (ii) Rahul Punchhi (20569992)
- (iii) Arshdeep Kaur Bal (20868114)
- (iv) Andy Gehlan (20474701)
- (v) Elisa Du (20906357)