Team: The Fresh Bagels
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This Project is designed to allow for the use of industry-standard technology in the creation of a mobile application. The project is focused on creating both an Android and iOS client using Google's Flutter Framework while hosting backend services in MS Azure Cloud. Flutter compiles to native code allowing for developers to have a single codebase, rather than two (one for Android and another for iOS). The cross-platform capabilities of Flutter are predicted to become a huge success in the mobile market allowing for the development of skills that most likely will be highly desired in the marketplace. Furthermore, this project allows opportunities to create a detailed application from start to finish, which enables a deeper understanding of software architecture and all of the components therein. By utilizing both the classwork and co-op experience up until this point, my partner and I aim to create a marketable product.

The College Curriculum, overall, has given me a deeper conceptual understanding of how the code I write should be operating. In specific, my course about Data Structures (CS2028C) enabled a fundamental understanding of topics related to Object-Oriented Programming which will be the programming paradigm used in this project. Although not too much experience was gained from Database Design and Development (CS4092), the generality of database design that was provided will be required for intelligently storing datasets. The design processes used in Software Engineering (EECE3093C) will act as a guide when defining requirements and use-cases for the project. As the project will be driven by data, this data will need to be scraped from the public domain in which Python Programming (CS2021) provided a solid framework in which I have been able to build off of. With the need to host services in MS Azure Cloud, the current class I am taking, Introduction to Cloud Computing (CS5165) will prove invaluable.

The co-op experiences I had the opportunity to utilize gave me the much-needed experience that I was lacking from the academic point of view. Each co-op term provided unique experiences as a Software Development Intern, which allowed for the further growth of development skills. As I worked at ITI Global, I had a lot of exposure to writing Python code. This paired with my knowledge gained from Python Programming (CS2021), will allow me to create a web-crawler to gather initial datasets for the project's resources. Working at Crossroads Church for another co-op aided me in the best-practices for software development cycles, in specific running agile practices. This co-op also let me get my feet wet with developing an internal application from the ground up. Lastly, my third co-op which was half self-directed upskilling and half as an intern at Reliable Transportation Solution allowed me to gain more familiarity with developing RESTful APIs using .NET and strengthening my C# and TSQL skills which will be used for the backend portion of the project.

This project excites me for two very simple reasons: 1. An opportunity to get even more experience with developing an application from beginning to finish, and, 2. Creating an application that has real practical uses in our society. Although this application is primarily a meal-planner, there are many 'accessories' so to speak that can be added to it. In specific, I desire to redefine "fast-food" to be the food made and eaten at home. This will require being

able to make the process for creating food not only easy but convenient; but, if done well, this could have societal impacts on the food we consume as well as an increased understanding of the food's nutritional values that we put into our bodies. The initial approach to designing a solution to these problems is to start with the data. This project heavily depends on having data to present to end-users, this data will initially be gathered through the scraping of public domain recipes. From this data, my partner and I can then go in and design the models for our project and thereby set up the backend of our project. Once the backend services are completed we will then continue to determine the easiest way to convey this data to our end-users via the frontend (mobile clients).

As far as expected results and accomplishments go, at the end of the day, the needed requirements are to design a meal-planner. Towards that end, there should be functionality that allows a user to interact with the frontend of the application that will trigger backend services hosted in the cloud to return results that are to be shown. As this is the barebones requirement for the project, anything surpassing this functionality will be considered as an accomplishment of creating a unique approach to the presented problem. To self-evaluate contributions, I will compare the application's current specs to the aforementioned requirements. This will give a clear understanding of whether or not the project has been completed and how well my partner and mine's efforts have been spent. Furthermore, understanding the 'barebones' requirement will prevent adding needless additions to the project until the initial requirements are met.