Course: CS-UY 4513

Semester: Spring 2019

Advisor: Professor Strauss

Project Name: **Feed Me**

Team Number: A23

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**PROJECT PROPOSAL**

*Product Overview*

Feed Me (name tentative), is a cross platform application (mobile, web) that provides intelligent, custom restaurant recommendations for its users with the objective of eliminating the difficult decision process which accompanies choosing where to eat.

The product will make its decision based upon a variety of factors including an individual’s food preferences, budgetary constraints, and location. Based upon publicly provided data from a variety of existing food review and recommendation services (i.e. Yelp, Google Reviews, Instagram, Facebook, etc.), the application will present users with a limited set of options for places to eat. What distinguishes the proposed product from other food review and location services is that the product will recommend a restaurant for the user rather than require the user to search through its database to find a restaurant themselves.

Auxiliary to the product’s primary purpose, the application should provide other functionality related to its main goal of meal-based decision making. This includes a means of coordinating meals with other users (and taking shared meal preferences in account to meal planning), tracking available budgets, and providing a means for users to refine their preferences by providing feedback for the restaurants chosen for them. Moreover, the application should provide a means of generating revenue. Both a premium, subscription based version of the service with expanded capabilities will be offered as well as a means for businesses to pay to boost their rating in the algorithm (or advertise outside of said decision making function).

*Customer Expectations Identification*

The product would appeal to a wide variety of customers. In the customer discovery and identification process, several key groups of shareholders were identified along with their potential expectations for the proposed product.

The primary project stakeholder and potential customers are young, urban professionals and students whom, during customer research, were identified as being most likely to eat out regularly for their meals (rather than cooking). Furthermore, they are more likely to eat socially (i.e. with other individuals) and consult online services in determining where to eat. One pain point which was identified among this customer base is that traditional online food recommendation services require some amount of vetting and research as services such as Yelp may have ingenuine reviews and ratings. Furthermore, a chief complaint amongst this customer base is that, even when presented with options on said platforms, choosing one or two potential choices is often difficult (due to general indecision). An auxiliary pain point is that coordinating meals with other individuals can be difficult due to varying availability, difficulty of identifying interest and differing food preferences. These customer’s expectations, therefore, are that the product *make a decision* for the user rather than just offer a search functionality through a database of restaurant option. This decision should require minimal user input and should be representative of their individual preferences. Finally, the product should product a social interaction component to allow different users to coordinate food decisions collaboratively.

A secondary stakeholder for the project, and alternative customer are travelers. Many tourists wish to immerse themselves in the locations to which they are travelling. First and foremost to this immersion is food. However, many tourists find it hard to find a “local favorite” both representative of the local cuisine and compatible with their dietary preferences and their willingness to explore food options outside of their comfort zone. Traditional search based food review platforms may be biased by other tourist reviews (and therefore their restaurant recommendations may not be truly representative of local culture) and also require the tourist to be familiar with the locale (nuances related to neighborhood and food specialties, i.e. where is Chinatown) as well as local specialties and food offerings. They expect from a platform that advertises to help make food decisions, that is have a means of understanding local food trends and making decisions based upon that information.

The final project stakeholder is the Software Engineering course and its faculty facilitator, Professor Strauss, whom is responsible for evaluating the project and its development process as well as laying out the requirements for its deliverables and their deadlines. His expectation is that the project be completed on time, using a well fit Software Engineering project management process. Furthermore, an expectation of the course is that it develop the entrepreneurial skills of its participants. Therefore the project should demonstrate some entrepreneurial consideration.

*Project Constraints*

The constraints of the project are that it be completed in the allotted time by the course and its facilitator and that it be completed by a project team of at most four individuals. This small team and finite time allotment mean that the scope of the product must be limited and realistically achievable.

*Requirements Definition*

Based upon the previously defined customer expectations and constraints, the following preliminary project requirements were developed. They are listed in Table 1. Each requirement is given a unique identifier and classified into one of four categories: **functional (F)**, **performance (P)**, **interface (I)**, and **design (D)**.

**Table 1**

Project Requirements

|  |  |  |  |
| --- | --- | --- | --- |
| Requirement No./ Type | Requirement | Rationale | Traceability |
| **~~SR1~~**~~: D~~ | ~~The product development scope shall be achievable within the deadline defined by the project facilitator.~~ | ~~The project is given a finite time for completion, therefore it should be able to be completed on time.~~ | ~~Constraints provided by the project stakeholders~~ |
| **SR2**: F/P | The product shall provide the user with a limited scope (2 – 4) of potential dining options. | The purpose of the product is to take the decision making process away from the user and perform it itself, therefore the product should limit the necessity for the user to have to make a choice, but it should also allow for some user participate to ensure accuracy. | Customer expectation for a succinct, easy decision. |
| **SR3**: I/D | The product shall require minimal user action. | The most successful software often require short learning curves. Furthermore, a distinguishing property of the product would be its minimal requirement for user input. | Customer expectation for a succinct, easy decision. The product should replace the need to make a decision themselves. |
| **SR4:** F/I | The product shall base its decision off of the user’s profile of preferences and provided information as well as data from external information sources as well. | A well informed decision requires an excess of data. Furthermore, good decisions should be tailor fit for the individual user. | Customers expect a quality decision equivalent to or better than one that they would make without the product |
| **SR5:** F | The product shall allow users to collaborate on decision making and coordinate social interaction. | Eating is a social event for many individuals, therefore providing a means of allowing the product, which is already focused on facilitating eating, to function socially would be a benefit to users. | Expectation of users for social aspect |
| **SR6**: F | The product shall have a means of generating revenue (monetization) for its developers. | A successful system has a means of supporting itself. | Expectation of an entrepreneurial aspect of the product. |

*Project Deliverables*

The deliverables to be completed for the project, and their deadlines, are listed in Tables 2:

**Table 2**

Project Deliverables

|  |  |  |
| --- | --- | --- |
| Deliverable | Description | Deadline |
| Project Proposal | An outline of the project’s motivation, description of its requirements and constraints, description of its concept, and list of deliverables | February 16, 2019 |
| Software Business Specification | An outline of the business needs of the project, as well as a development of the product requirements and proposed decomposition of the product. | February 28, 2019 |
| Software Requirements Specification | Specification of the final requirements of the product, traceability to customer expectations and constraints, and verification plans for said requirements | March 26, 2019 |
| Software Project Management Plan | Definition of the project organization and proposed management of the project including planning for workflow, risk management, and technical management. | April 4. 2019 |
| Software Analysis Specification | A breakdown of the proposed product and its requirements decomposed into smaller functional units. A technical specification for proposed behavior and operation. Also a definition of acceptable software quality and human / environment interaction standards. | April 23, 2019 |
| Software Design Document | Final document for scope of this project | March 9, 2019 |