Covid-19 Restaurant Reservation Project

Cosc 4379

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2020

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# Overview

(Kevin) In a comprehensive data science study composed by Yelp Economic Average, second quarter 2020 data shows that due to the current pandemic “[t]he restaurant industry now reflects the highest total business closures, recently surpassing retail” (Yelp 2020). A record number 60% of these closed restaurants will not open their doors again. But metrics taken from this study also show that consumer interest is steadily returning to their pre-pandemic activities with some categories like Russian cuisine showing a 52% increase in consumer interest. So why are restaurants closing while consumer interest in local restaurants is increasing? According to Datassential, a data science firm that focuses on the food and beverage industry, “[s]afety is now part of consumers' restaurant selection, with four out of five consumers indicating they will be checking to see if restaurants are enforcing safety precautions before deciding where to eat (Howe, 2020). We propose a web-based application that communicates to a potential customer a restaurant’s safety precautions. This application will increase a customer’s likelihood of returning to local restaurants. The application will have a portal where a restaurant user or an individual user can register or log in. Once logged in, an individual user can view the registered restaurant’s profile and confirm the reservation, committing the user(s) to visit and dine in the restaurant at a specific time. This reservation is then conveyed to the restaurant via its portal. In addition to viewing the reservations confirmed by customers, a company can compete with other companies for reservations by updating their profile with information about safety measures they have taken onsite. This information includes cleaning schedules, minimum table distances, hand washing regimen for staff, and more. Additionally, we will allow locals to donate to these restaurants within the web application by using the Texas Restaurant Relief Donation Form. Texans have donated 2.2 million dollars to restaurants across the state and we believe including a link to a donation page will increase the likely hood a customer will donate to their favorite restaurants (Bell, 2020). The primary source of revenue for the development of this project will be from subscriptions. The application will require a monthly subscription from individual users and business users. This subscription model will be a monthly fee that has yet to be decided. The development of the project will be two months, with the initial design being one. The finished product will be a web application with an HTML/JavaScript front end and Mysql backend, all managed by PHP.

# Goals

(Hector) The goal of the project is to design an easy to use web application and web portal that will allow users to have the ability to make reservations to a restaurant. This application is targeted toward smaller businesses to help them minimize unnecessary interaction between clients and companies. The application will allow a more optimized form of communication with their customers since they can reach more people at the same time. Another achievement of this project is to increase communication and allow clients and companies to follow the governmental health regulations currently being enforced. This achievement will enable numerous optimizations towards waiting time reduction, avoiding any health regulation penalty, minimizing the spread of airborne diseases by maintaining people more distanced, and other government regulations during the pandemic. Achieving this will allow businesses to improve their predictions based on the profiles already created by users. Allowing them to do things like have the right amount of staff and produce. These achieved with this project, hopefully allowing small businesses to attract numerous people to their locations, which are currently struggling due to the current pandemic.

The anticipated outcome for this project will be an application developed for users and small restaurant owners. In this application, a user can personally create a profile and any information the user allows companies to use according to their privacy policy. It is also anticipated that a user would have ease of access to a portal to log onto and read the information available about a restaurant with things such as times available and confirmation of reservation. With the application, we hope to increase the flow of potential client(s) to a small business by using an easy to use application for the customer and the restaurant.

The restrictions that will come from this project are both technical and time restrictions. The technical limits that this project might face are the developers' experience developing applications that include front and back end. Regarding time limitations, there might be issues trying to meet deadlines that have been set due to scheduling limitations that each member might have. These limitations and technical restrictions might also affect the delivery dates of the proposed deliverables either due to scheduling or inexperience that the developers are causing them to work extra, causing delays.

|  |  |  |
| --- | --- | --- |
| **Project Goal** | **Priority** | **Comment/Description/Reference** |
| Functional Goals | 1 |  |
| Make Appointments | 1 | The application must be able to make appointments |
|  |  |  |
| Business Goals | 1 |  |
| To Market By December | 1 | There should be a finished product by December |
| Affordable | 2 |  |
| Technological Goals | 2 |  |
| Database | 1 | Database created in October |
| Website | 2 | Website created in October |
| Quality Goals | 1 |  |
| Easy App. | 1 | The application must be easy to use |
| Constraints | 1 |  |
| Scheduling | 1 | Making the team reaches sure deadlines |
| Inexperience | 2 | Some novice developers |

# Scope

The project will allow a customer to make a reservation at a restaurant efficiently. The application is going to be used by the restaurant or the customer through the web.

## Excluded

This project will exclude the ability to do anything that is not part of reservations, such as ordering food online, paying for bills, or anything related to sales.

# Tentative Schedule of Deliverables and Milestones

|  |  |  |  |
| --- | --- | --- | --- |
| **Milestone** | **Description** | **Criteria** | **Date** |
| M1 | Database Creation | Development | 10/16 |
| M2 | Website Design | Design | 10/25 |
| M3 | Website Development | Development | 11/1 |
| M4 | Database Development | Integration/Redesign | 11/16 |
| M5 | Full Testing | Redesign | 11/30 |
| M6 | Roll-out Testing | Testing/Completion | 12/14 |

# Administrative Protocols

(Luis)

● Each member must communicate via Canvas email or text each other to see where we are in our designated project portion.

● Each will submit our designated portion of the project via Canvas group files so that we can compile our work and merge it for the final project deadline.

● Every team member will submit their required portion of the project promptly to submit the final assignment on time.

● Each team member must report on time if they are unable to complete their portion to complete it as a team.

● Each team member must also coordinate his efforts to complete the project that has been assigned promptly.

# Work Breakdown Structure

# Diagram Description automatically generated

# Team Members

1. Luis Vera

2. Hector Jaimes Martinez

3. Joshua Crumback

4. Kevin Aaronson

5. Joshua Kleshick

6. Troy Billson

# Project Organizer

The project is organized by Trello. Using this workplace helps with the collaboration of the project.

| **Role** | **Group** |
| --- | --- |
| Project Manager | Kevin Aaronson |
| Technical Project Mgr. | Luis Vera |

# Budget

| **Category** | **$60K Budget** |
| --- | --- |
| **M0-M6** |
| Personnel | 45,000 |
| Advertising | 7,500 |
| Server Cost | 7,500 |
| Total | 60,000 |
| **Total cumulated** | **60,000** |

(Joshua K.) For our project we have set ourselves a budget of $60,000. The bulk of our money will be spent on personnel. This can be broken down into subcategories such as training, travel expenses, and pay. After these cost the rest of the budget is set aside for advertising and server cost. Word of mouth advertising is the best and cheapest but for the initial upstart the need to get the product name out there is the most important thing.

# References

Bell, J. (2020, May 05). $2.2M in donations sent to more than 400 Texas restaurants for Giving Tuesday Now. Retrieved October 19, 2020, from https://www.kvue.com/article/life/heartwarming/texas-restaurant-association-relief-fund-giving-tuesday/269-24d61ec8-5850-4cb4-b951-2fff5a1b126a

Howe, J. (2020, August 17). Guiding restaurant recovery: Consumer cravings and communication. Retrieved October 19, 2020, from https://blog.datassential.com/news/guiding-restaurant-recovery-consumer-cravings-and-communication

Yelp. (2020, July). Increased Consumer Interest in May Correlates with COVID-19 Hot Spots in June, According to the Yelp Economic Average. Retrieved October 19, 2020, from https://www.yelpeconomicaverage.com/yea-q2-2020.html