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CS 321 Group 6

Project Proposal

Part 1A:

- Within the domain of technology lies a problem: a literacy gap between people introduced to new technologies and those who have grown up with it. How can we educate the older generations about new technologies and bring them up to speed on current ones?
- This domain is minorities, and the lack of widespread communication over places to meet safely and discuss related topics. How can we connect individuals of certain minority groups and help organize meetings?
- This domain covers restaurants and their staff: Many restaurants are understaffed at the moment, so the servers are unable to efficiently be of service to the tables they are assigned to. How can we allow a minimum amount of servers to properly wait on tables?

Part 1B:

The spread of the COVID-19 pandemic across America and the responding quarantine has forced many restaurants across the country to heavily restrict dining within the establishment or even close entirely. This in many cases has forced restaurants to slow their business and to dismiss many customer service employees. Those that remain employed find their businesses understaffed and unable to serve customers as efficiently as they were prior to the pandemic. Some employers respond to the lack of staff by increasing workload demand on those that remain employed, which frequently leads to a significant loss of workplace morale and resignation of employees who do not consider the overtime more beneficial than harmful. Another factor to consider is that employers had less trouble finding new employees to hire when business demand increased, however a byproduct of the lockdown was decreased activity outside of one's home, which made finding new employees difficult. With a smaller network of staff available, employees can often find themselves rather uncoordinated and having to conduct customer service operations slowly and haphazardly. Most businesses simply have not organized

their employment structure to account for a situation like the pandemic and resulting lockdowns and do not have a clear solution to reorganize and coordinate their customer service effectively.



As mentioned above, with the ongoing Covid-19 pandemic, restaurants are finding it increasingly difficult to retain employees. To combat such issues, restaurant chains such as Chili's have turned towards a more digital and technological approach to such issues. This tablet-based system, made by a company called Ziosk, allows for customers to order various appetizers, desserts, and pay their check without having to locate and get the attention of a waiter or waitress. In doing so, said systems have, “decreased the average mealtimes by upwards of 5 minutes”¹ and “reliably increased the size of the average check”.¹ While larger restaurant chains are often able to afford a team of developers with corporate backing to construct a widely available app to conduct in-establishment business and online orders, smaller family-owned and local restaurants and restaurant chains may have trouble gaining access to the resources needed to follow suite. Our group proposes a more open and customizable architecture able to be widely used and purchased via a license that would allow businesses to easily construct a system to assist with orders online and coordinate customer service operations. This enables small businesses to maintain operations effectively within the parameters of the pandemic without necessarily having a team of professional software developers to build a restaurant-chain specific application.

Feedback

During the in-class feedback activity, we presented an entirely different idea. We wanted to make a program that could easily hold data for groups of hobbyists. However, thanks to our classmates we were able to see that the idea we presented already had a solution available. We decided to go with the next option that everyone in the group found appropriate, which was finding a way to help understaffed restaurants. The main feedback we received from the first idea was to do more research into what was already in use. We decided to use this feedback and apply it to our new idea. By doing this we found out about Chili's having a similar system where you

can order your meal and pay for it all at your own convenience at your table. This is specific to Chili's, but we want to differentiate our product by making it more universal, so it is more available to smaller businesses.

Contributions:

Carter Haug: 25%, Helped write 1a/1b. Took feedback notes

Logan Richter: 25%, Organized group discord, Presented idea to class, Helped write 1a/1b

Amber Smith: 25%, Organized documents, Made sure both parts were submitted on time

Hannah Werries: 25%, Conducted in-class interview, Helped write 1a/1b

Citation:

I: <https://www.theatlantic.com/technology/archive/2014/06/chilis-is-installing-tablet-ordering-at-all-its-restaurants/372836/>