DEPLOYMENT PLAN

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The Restaurant App is currently meant for tabletop ordering in sit down restaurants. It utilizes the internet and currently runs from a website to process orders. At the moment, it allows restaurant owners to set up a restaurant with a description, number of tables, and a menu. The Restaurant App also has a system for the back of the house to keep track of the orders that need to be cooked, as well as a way to view the "books".

Competitors

Based on the current and original implementation, the following companies have been identified as the Restaurant App's competitors: Ziosk, E La Carte, and Altametrics. There are a few other systems in place specializing in tabletop ordering, but these three are by far the leaders in the industry.

Red Robin, Uno's Pizzeria, Olive Garden, Chili's, and Ruby Tuesday all utilize the tabletop system provided by Ziosk. The company differs from the current implementation of Restaurant App in that the system is pre-downloaded to a 7-inch android tablet with a built in printer and offering 22+ hours of batter life. The tablet offers services such as an email club, loyalty program, social media capabilities, and purchasing of merchandise. Ziosk quotes an increase in surveys taken, eclub enrollment, a 20% increase in appetizer sales, and 30% increase in dessert sales. Also more than 80% of users pay their bill via Ziosk's tablet.[16] Installation of the Ziosk system at a restaurant location is usually a single day process. The first phase, taking half the day, prepares the site for installation (installing Wi-Fi, establishing connections to the in house servers and POS systems, and checking security). The second phase is turning the tablets on and testing every aspect to make sure they are functioning properly. [17]

Source: Ziosk website

E La Carte is very similar to Ziosk in that they too have their system set up on a tablet that is installed at each table of the restaurant. Applebee's is the chain that utilizes the E la Carte devices.[14]

They also have a single day installation and much of the same features such as games, email club, etc. However, content changes for restaurants cannot be done directly by the user. They must be submitted to E La Carte for implementation.[17]

The final major competition for Restaurant App is Altametrics who is known for it's partnership with Buffalo Wild Wings. Unlike Ziosk and E a Carte, restaurants do not need to purchase a tablet to implement the companies system, the product is an installation onto any type of tablet/mobile system (iPhone, iPad, Android. According to Restaurant Magazine, Altametrics' eRestaurant system is "innovative, better designed, startlingly faster, vastly more powerful, and has more flexible integrations with third-party POS systems and accounting software."[17] Altametrics may integrate well with other systems but they also offer their own systems in addition to the tabletop ordering one. They have a clock system for employees, a POS system, and online ordering system, a system to manage the accounting side of things, and a way to retrieve and analyze data on selling trends and more. A pitfall to the Altametrics ordering system is that it requires internet connection to function. It is able to maintain critical functionality without internet but the other aspects of the technology require an internet connection.[15]

Restaurant App's Future

Because Restaurant App is not a novel concept, if it wants to survive in the market place it needs to either fill a segment of the market that Ziosk, E La Carte and Altametrics are ignoring; create a cheaper product; or create a more streamlined, fast, and easy to use product. It is the opinion of Group 11 that because Ziosk and E La Carte have such a good tabletop infrastructure, Restaurant App must focus on a concept similar to that of Altametrics. The company must pivot it's focus from solely offering a tabletop ordering and kitchen system to offering a multitude of Restaurant products that streamline every process for cheap in order to compete in the marketplace.

In order to implement a well informed pivoting of our company's products, we will need to send out surveys to gather more information and recruit some restaurants for beta testing. This implementation will be discussed in the next section. For now we will create a rough estimate of Restaurant App's focus based on the prior experience of Group 11 and their friends in the restaurant industry. The current assumptions that we are operating under is that Ziosk, E La Carte and Altametrics focus their business on national, chain restaurants as opposed to local single location type restaurants. We also assume that these smaller restaurants are less likely to purchase the software because it is either too expensive or it gets rid of the customer interaction with the staff which is valued. Plus

allowing customers to have tablets that are not large and restaurant durable is not an ideal implementation for the restaurant industry. The final assumption made is that keeping track of tables and the waitlist is a very archaic system still and the software out there currently is sub par.

Based on these assumptions Group 11 has come up with the following business model that will drive production of the restaurant software. Restaurant App will create a multitude of restaurant programs that each focus on a different aspect of running a restaurant. This is the way we will enter a marketplace that already has companies with good products and brand recognition. All our programs will be sold and able to operate independent of one another. However, we will have functionality that is viewable to the consumer but not able to operate unless the other program has also been purchased and put into place. For example, if the consumer has our POS system and our metrics system then they will easily pull POS data into the metrics system and make some simple conclusions. However, without the metrics system the product would only be able to show a bunch of data, which would need to be manipulated by hand. This method will incentivize people already using our software to purchase more even if there is a better more trusted product already on the market. That solves selling other products; but it does not solve anyone purchasing any of our products in the first place. To solve this problem we will focus on the archaic system of keeping track of the queue, tables, and reservations. By making this system the best on the market, it will get purchased, thus creating brand recognition for other products. (Note: The fact that this is the system that is in the worst shape currently is an assumption. Surveys will help develop the place that we need to focus most).

With that said, our company will be creating a multitude of systems: ordering, online ordering, reservations/queue/table tracking, POS, accounting and metrics, employee clock, and a kitchen organization software. The ordering system will range from partial tabletop, in which the waiter carries around a tablet to full tabletop.

Step 1: Surveying and Gathering Beta Testers

In order to create the best product before we even begin coding, we must gather information and people to test our products for free. We will be targeting business ranging from small to large. The following are some example questions that we would send out:

1. How likely are you to invest in tablets for each table? Why?
2. What systems do you currently use for your restaurant?
    a. What do you dislike about them?

    b. What do you like about them?
3. What system would you like to be automated?
4. How much would you pay for this system?

This process will not cost us anything because finding contacts for restaurants is easy, however it will be very time consuming to find people willing to take the time to answer surveys or even become beta testers. We will focus on local Lawrence and KC restaurants first and then if we need to expand to the midwest.

Step 2: Servers/Databases and Domain Names

To begin coding we must set up servers and a domain name. After looking on GoDaddy.com and searching for RestaurantApp we found that the cheapest option that still holds our products name is the domain restaurantapp.us. If we end up choosing this site it will cost us $1.00 for the first year and $19.99 each year after that.

Based upon our research, choosing a server depends on our bandwith needs and datbase memory needs. The following formula is used to calculate bandwidth needs[1,2]:

$$Bandwidth\ needed\ =\ Daily\ visitors\ *\ Page\ views\ per\ visitor\ *\ Avg\ page\ size\ *\ 31\ days$$

We are estimating around 200 daily visitors with an average of 10 page views per visitor. We are estimating our average page size to be around 150 KB once fleshed out fully. This gets us a bandwidth of 9,300,000 KB or 9.3 GB per month. To be safe we will round up and require 10 GB per month restaurant. And since our goal is to have 10 restaurants for beta testing we will require 100 GB for bandwidth.

Currently we are using MySQL for the database needs. There are other databases such as MongoDB, but because Group 11 has no experience in anything but MySQL we will be considering servers based upon MySQL needs. The following table demonstrates the memory size needs based up our current implementation. We also assume that we will allow the restaurant to store a max of 10,000 entries in the accounting table.

Table	Approximate Size (KiB)	Number of occurences per restaurant	Total size (KiB)
Maintenance (with all 10 categories filled)	2.1	1	2.1
Cart_table	3.0	10	30.0
Bill_table	3.0	10	30.0
OrdersToCook	10.0	1	10.0
Menu	10.0	1	10.0
Accounting (per entry)	0.1125	10,000	1,125.0
Total space needed per restaurant			**1,207.1**
Total space needed for 10 restaurants			**12,071.0**

Four server companies were examined to estimate costs to run and host our website: 1and1 Services, Rackspace, SoftLayer, and Google Cloud Platform. Their information is summarized below by company.

1and1 Servics[3]

Entry level servers include the L4 and L4i packages. The L4 package includes an AMD Quad Core processor. It's speed is 4 (cores) x 2.1 GHz. The RAM available for this is 4 GB DDR2. Hard disk space is 750 GB. The L4i package includes an Intel Quad-Core processor. It's speed is 4 (cores) x 3.1 GHz with a 3.4 GHz "turbo boost." The RAM available for this is 12 GB DDR2. Hard disk space is 1000 GB.

L4 Price: $35 for first six months and $70/month on

L4i Price: Free for first three months and $80/month afterwards

Additional SSL Certificate security fee: $50/month

Rackspace[4]

Rackspace offers a build your own server package adding cost per item wanted. The base package includes IT maintenance costs.

Base package: $50/month

1 GB server space: $23.36/month

1 GB MySQL: $44.55/month

100 GB of bandwidth: $12.00/month

Total Price: $119.11/month

SoftLayer[6]

SoftLayer offers a basic entry-level "Virtual" server. This includes a 1 x 2.0 GHz core. The RAM included with this package is 1 GB. Bandwidth allowance is 250 GB. The server includes MySQL for an extra fee

Total Cost: $59.52/month

Google Cloud Platform[5]

No data storage for dynamic web pages like ours but Google does offer a very robust SQL database service. This service comes with automatic data encryption which is very useful from a security standpoint. Google also offers a very flexible "pay as you use" billing system which starts at $0.025 per hour of use. Storage is also very affordable, starting at $0.24 per GB per month.

Total Cost: $18.84/month

Decision:

Based upon our need of 100 GB of bandwidth and 0.012 GB of MySQL and the company fulfilly all our requirements while being the cheapest option. We have chosen SoftLayer for our servers and database needs.

Step 3: Find an Incubator or VC for Funding and Advice

To make Restaurant App able to fund this venture and be advised with the best information we believe that the best route to fast track the company is to join an incubator and gather funding from venture capitalists.

Kansas City Startup Village[7]

A local incubator is Kansas City Startup Village and it is free to apply. They were the first home in KC to have Google Fiber. Unfortunately, their website does not provide much information on the assistance provided but it is assumed that it provides all the normal business incubator services, such as office space, connections to the community, path to capital and collaboration with similar minded people.

Think Big Partners[8,9]

Through their combination of incubator, accelerator and coworking programs, they have created a community where early stage businesses find the necessary elements to launch, grow and succeed. A community where all elements of the ecosystem converge allowing entrepreneurs to have meaningful

"collisions" with others so they feel comfortable collaborating to produce more sustainable and dynamic ventures. The lab will seek out the best emerging technology solutions that can be fine-tuned, tested and ultimately validated prior to full scale commercial deployment.

BetaBlox[8,10]

Each start-up company/team receives six months of 24/7 access to the BetaBlox facility and program. Ten companies are awarded at a time and then replaced with another ten companies after their award period is up. They offer office space, mentors, access to the Kansas City Angel Investors, 1-on1 consultations, legal help, an alumni network, preferred vendors, classes, and a board of advisors.

SparkLabKC[8]

10 promising startups are selected each year for a 90-day intense, in-residence, mentor-driven program that provides up to $18,000 in seed capital and business advisory services.

Step 5: Conventions to Advertise our Product

You will notice that we skipped from step 3 to step 5. This is because step 4 will be actually building the program. This step will be to attend conventions for restaurants in order to advertise our new technology. Below we have listed the conventions we are interested in and the cost to attend. After attending conventions it will be a lot of "boots on the ground" reaching out to interested parties and expanding our codebase and users network.

The 2016 Western Foodservice & Hospitality Expo (Los Angeles)[11]

This conference is aimed at investors and innovators that are looking for new and exciting trends in the restaurant industry. We will likely find many potential customers that are interested in more tech oriented solutions for their businesses.

- 79% of attendees are involved in their company's purchasing decisions.
- 53% of attendees plan to spend at least $50,000 on products and services seen at the show, with 18% planning to spend more than $1 million.
- 39% of attendees are affiliated with a Restaurant
- 40% of attendees are restaurant owners

Price for 100 sq. ft./booth: $4,210

Atlanta Foodservice Expo[12]

This conference is also committed to up and coming trends that are out to redefine the traditional restaurant experience. The target demographic is younger and more experimental entrepreneursand will likely have more people that are interested in how technology can help set their business apart.

Price for 100 sq. ft. table/booth: $2,174

Northwest Foodservice Show[13]

“Whether it is operations, food cost, labor cost, available labor force, the diversifying of food or the importance of brand and marketing – just about every aspect of our industry is changing.” This is another conference focused on the same things, however it allows us to enter the northwestern restaurant market.

Price for 10’x10’ Inline Booth: $1,750

Citations

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