CIS 3150 Term Project: LocalsOnly

Providing a Digital Experience for Small Businesses

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Demographic Analysis:

The problem domain that I will be working on in this project is supporting local businesses by providing a comprehensive digital experience for millennial consumers. Since the dawn of the 20th century big corporations have taken over the economy and it has forced many small business owners to close their doors as they have no way of competing with the resources of million dollar corporations.

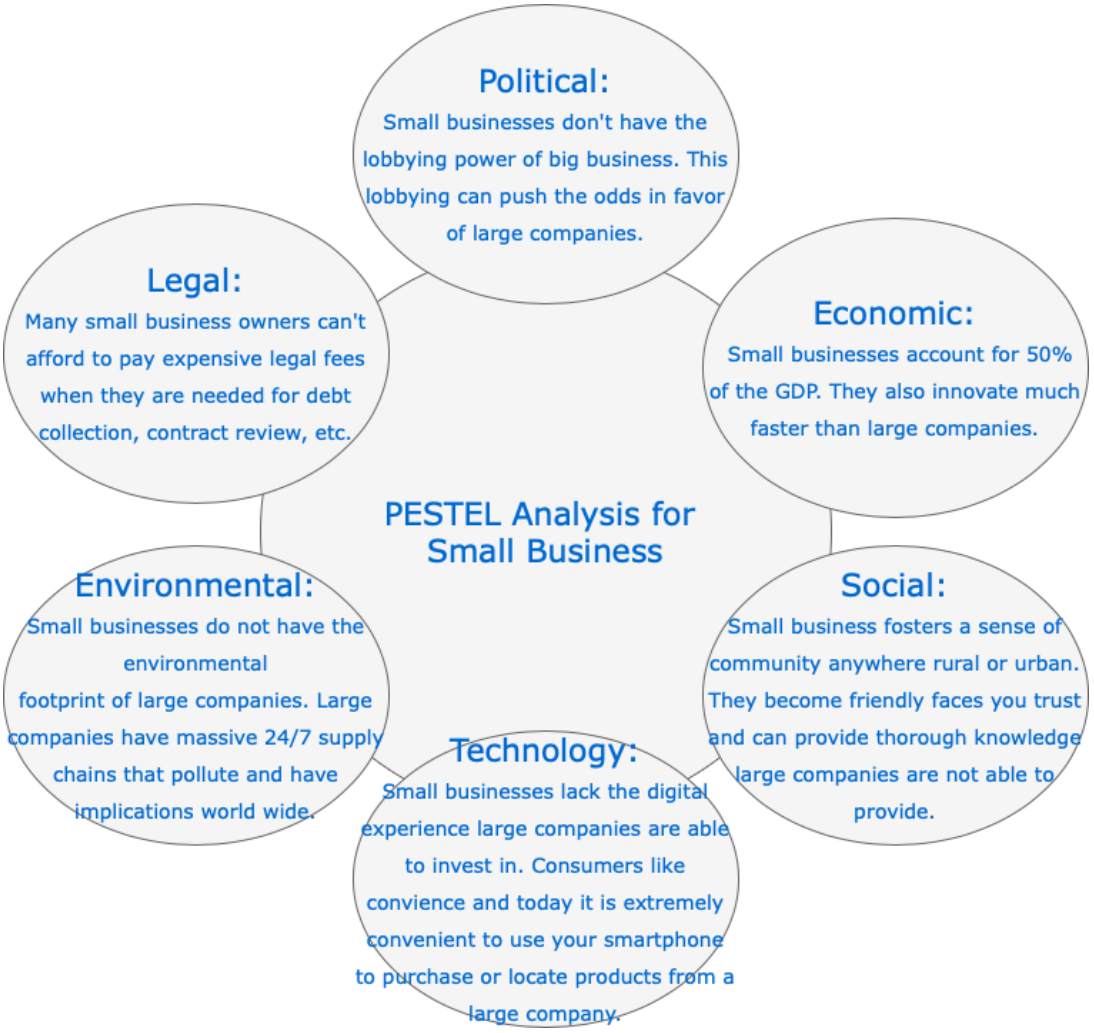
I believe that small businesses are vital to America's economy and the numbers show it, According to Exploring Business a book by the University of Minnesota "There are more than twenty-seven million small businesses in this country, and they generate about 50 percent of our gross domestic product (GDP) (Office of Advocacy, 2010)." (University of Minnesota, 2010) as we can see without small businesses our economy would crumble.

It is important to do a detailed analysis of this project in order to better understand the user base that will benefit as a result of this project. The original intent with this project is aimed at rural towns that may not have chain stores, however this can absolutely be applied to urban cities as well. In the 2017 Times article: *Small Business Growth Has Stalled and That's Bad for All of Us*, they discuss a couple of the contributing factors that have led to a reduction in the amount of small businesses being started. One of the factors they discuss is what is called "The Walmartization of America" They detail this rise in big chains and explain how it is far more convenient for consumers they go on to say "Large chains have had the time to develop highly efficient processes and have the resources necessary to build infrastructure that maximizes profits while minimizing consumer costs. Consumers, in turn, rely on those businesses for the cheapest possible goods and the most familiar brand image. Go to any Walmart in America, and they'll likely have the product you're looking for, going for a reasonable price. Heading to a

small business becomes a gamble." (Times, 2017) As evident in the quote consumers like convenience, especially in today's fast paced digital lives, no one wants to spend extra time trying different small businesses to see if they have the product they need.

Now that we understand the benefits and current issues of small businesses we will look at what demographics would benefit or be interested in a service that provides a digital experience for local storefronts. The demographic group I will mainly be targeting is Millennials. As of July 1, 2019, millennials have surpassed the baby boomers for the largest generational demographic in the United States at a staggering 72.1 million.(Pewresearch, 2020) Millennials now account for one third of the U.S. labor force. This means Millennials now have the necessary income to purchase goods and services in the U.S. economy. Millennials also spend their money wisely, According to Investopedia "they research online, test the products in stores, and then seek out honest reviews by their peers before making a purchase." (Investopedia, 2020) Knowing this we can see how small businesses can capture millennial spending by adapting to the current digital landscape, providing a convenient web based storefront. With a digital storefront millennial consumers can research the product, go in person to test it, and get expert advice from local business owners. Consolidating this process into a single service will make it much easier for millennials to spend locally at small businesses. According to a survey of 1,002 Millennials conducted by CouponFollow, "Millennials in 2019 make 60% of their purchases online, up from 47% in 2017" (CouponFollow, 2019) With over half of millennials purchasing products online, it is critical for businesses to offer an online shopping experience, which many big name stores do now, but according to Top Digital Agency "Less than two-thirds (64%) of small businesses have a website" (TDA, 2019) This project aims to address this issue and make it convenient for millennials to purchase from small businesses online.

PESTLE Analysis:



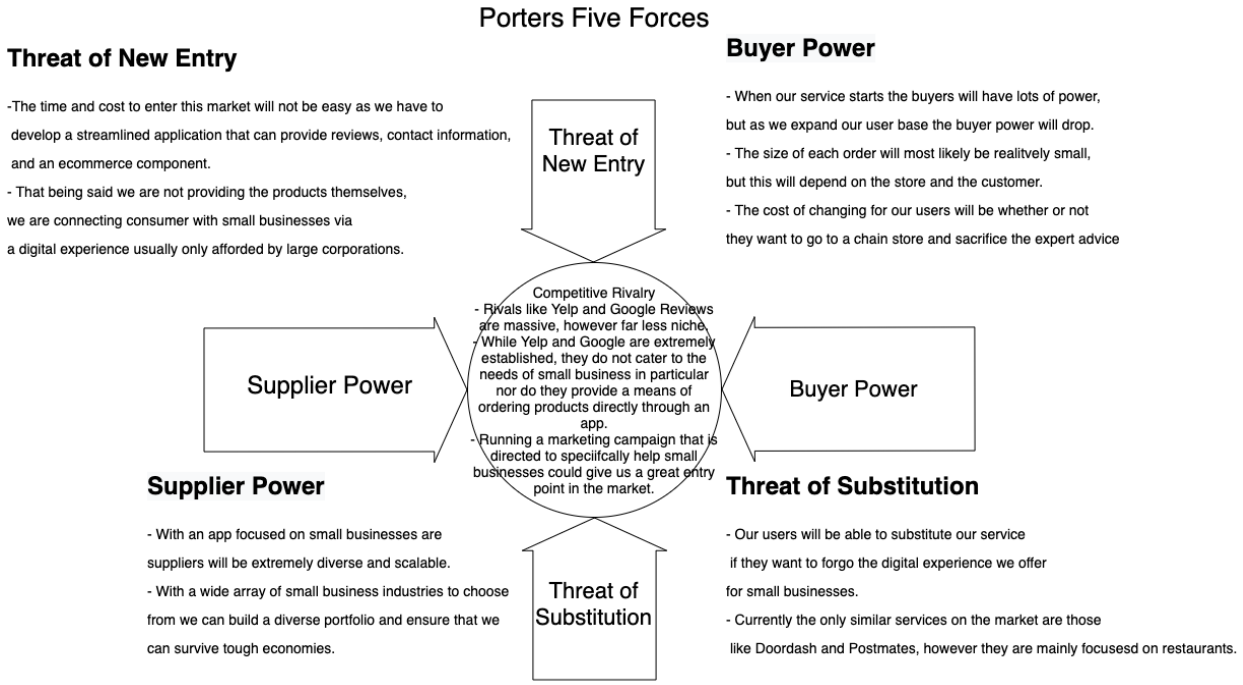
The PESTEL Analysis looks at many different factors that affect a local businesses success. This diagram opened my eyes to what small businesses lack and how this project could potentially serve them better while at the same time bringing in a new demographic of consumers in touch with local businesses. As we found in our demographic analysis millennials care about causes, from the farm-to-table movement to supporting companies like Patagonia, who has built their brand off of responsibly sourced, environmentally friendly clothing and gear.

SWOT Analysis:

STRENGTH - A digital experience is a new frontier for many small businesses. This untapped market could bring in lots of busineess and prosperity. - The superior knowledge of small business owners will allow consumers to have easy access expert advice.	WEAKNESS - Not as diverse of a product offering - Higher costs due to the lower volume - Shorter business hours - Single location per small business - Most do not have any market share in a digital experience
OPPORTUNITY - Millenials like to shop local in order to feel more connected with the products - Much like the farm-to-table trend millenials like knowing where their product came from. - Millenials are the countries largest generational demographic - Enviromentally friendly way of	THREATS - Unstable economy due to current events - Large corporations have far more resources to compete in this space - Marketing to this product to business owners that are already on a tight budget - Business owners could be aprehensive of the opportunity cost of the digital experience

The SWOT Analysis gave me a lot more insight as to how I could potentially connect these two demographics. It benefits millennials because they get to support grassroots organizations and their communities. It benefits small business owners because they gain access to a relatively untapped market. My original concept was just going feature reviews of local businesses, but as I made these diagrams I realized there was a greater connection I could make between the two.

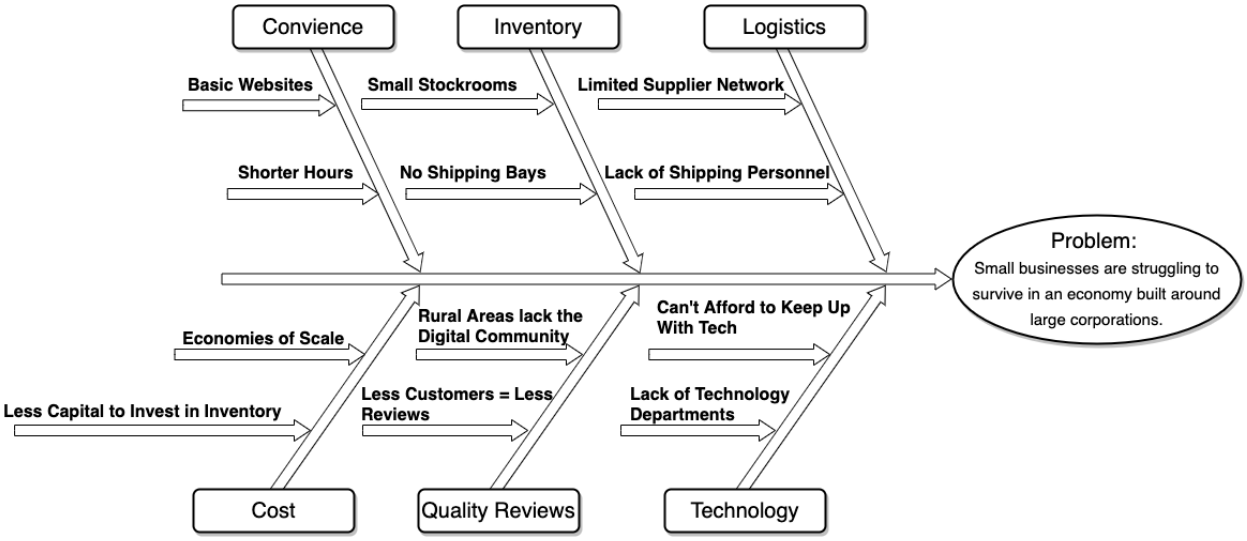
Porter's Five Forces:



Porter's Five Forces gave me a lot of insight into how scalable this app really was. I was able to find that there really wasn't one service that incorporated these features in one streamline package. I realized just how strong this business model could be since we would be able to partner with businesses from all different industries, making our service fairly recession proof. Seeing as we know millennials like to support causes, I started to realize that marketing

this app would be as simple as finding a plethora of grassroots causes that would benefit from consumers shopping local. Marketing towards our target demographic was starting to take shape.

Fishbone Diagram:



The problem domain we built our fishbone diagram off of was the fact that small businesses are struggling to survive in an economy built around large companies. The first category we looked at was the logistics of shipping goods. Small businesses have limited supplier networks and limited shipping personnel which makes it hard for them to compete online with big box stores like Walmart and Amazon. These stores have large networks of suppliers and entire shipping departments making sure that customers' goods are delivered in a timely fashion and to the right recipient.

The next category we looked at was Inventory. Small businesses are not able to keep the stock that a large company is able to. Small businesses also do not benefit from large shipping bays that allow big corporations to receive lots of stock. This all adds up to local stores not being able to carry a wide range of products.

Convenience was another category that we discussed in our fishbone diagram. As we found in our Demographic analysis, Consumers have been conditioned to love convenience. Big corporations excel at this with great intuitive websites and long hours to accommodate consumers schedules. Local stores usually have basic websites and shorter hours since they employ a smaller workforce.

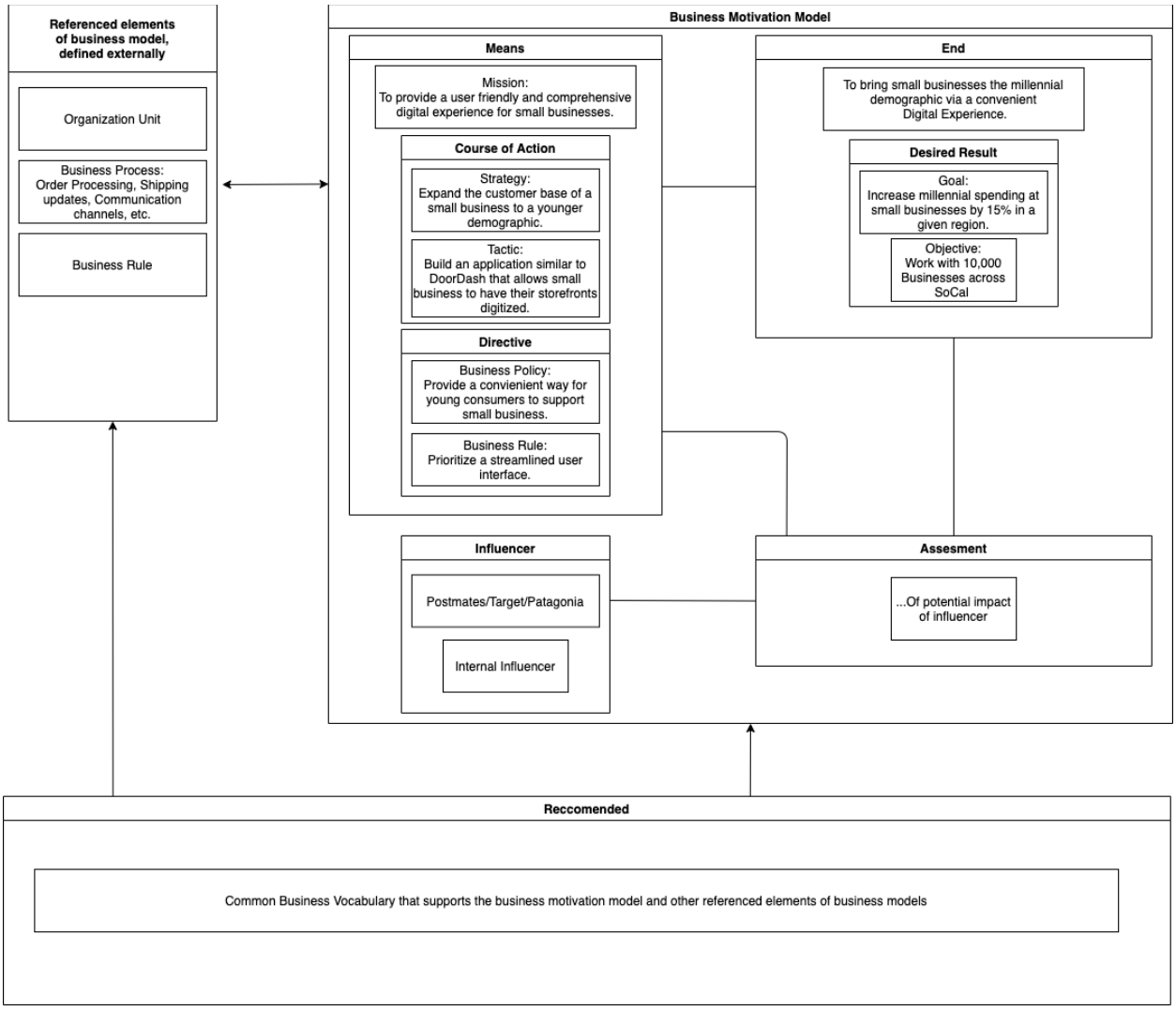
Cost is another category we analyzed with our fishbone diagram. Large corporations benefit greatly from economies of scale, since they can buy such a large number of products they are able to get it for a greatly reduced cost, thus allowing them to sell it to consumers for cheaper than a small business is often able to. Small businesses also are unable to carry as many products due to having a smaller amount of capital to work with when acquiring goods or materials.

Quality reviews was another category I looked into when building my fishbone diagram. As we know from our demographic analysis, Millennials spend their money wisely. They like to research products and test them in store before purchasing them. Since local businesses receive less customers it only makes sense that they have less reviews. This is why an important module in our project will be incentivizing quality reviews when consumers purchase from a local business. Local businesses are often more common in rural areas and these areas usually do not have a strong digital community or online presence.

The last and probably most important area we looked at on our fishbone diagram was technology. Local businesses usually don't have the resources to dedicate towards ensuring a strong online presence with streamlined websites and social media pages. I can expand on this anecdotally since I work for an MSP. Working at an MSP I've had the privilege of observing small to midsize businesses in a diverse array of industries and it is our job to ensure they stay relevant when it comes to technology. We do anything from deploying workstations to

maintaining websites. This brings me to the last cause of the technology area, small businesses usually can’t afford or don't see the value in spending lots of money to build a strong digital experience for their business. This was something I addressed in my demographic analysis, where I brought in a variety of statistics to reinforce the power of millennial buyers and why it is important for businesses to ensure they reach that demographic.

Business Motivation Model:



This Business Motivation Model really helped me understand the direction this project needs to go in. I started out working on the means of the project with my mission, to provide a user friendly and comprehensive digital experience for small businesses.

The strategy I came up with was to expand the customer base of a small business to the millennial demographic. The tactic I will use to implement this strategy is to build an application that allows small businesses to digitize their storefronts among other things. Our business policy is to make it as convenient as possible for millennials to shop at small businesses. We will do this by prioritizing a streamlined and efficient user interface that customers enjoy using. The external influencers of this project are companies like Postmates, Target, and Patagonia. Postmates has created a great service that allows restaurants without home delivery services to gain access to a digital experience and a delivery service. Target also has a robust mobile application that allows users to “Plan, shop, & save. All in one place” (Target, 2020) That quotation is straight from the app store and encapsulates what this project will do for small businesses. Coming from a user one of my favorite parts of the Target app is that it tells you exactly what aisle a product is in if you plan to get it in person. This is an extremely convenient feature that saves precious time when shopping. The last external influence is Patagonia simply because of their remarkable efforts to be an ethically responsible corporation. One thing that I am fond of is that it is very easy to trace their products supply chain and ensure the materials are ethically sourced.

Agile Method:

Q: Describe an agile method you would recommend for this project. Also, how might lean methods assist this project specifically?

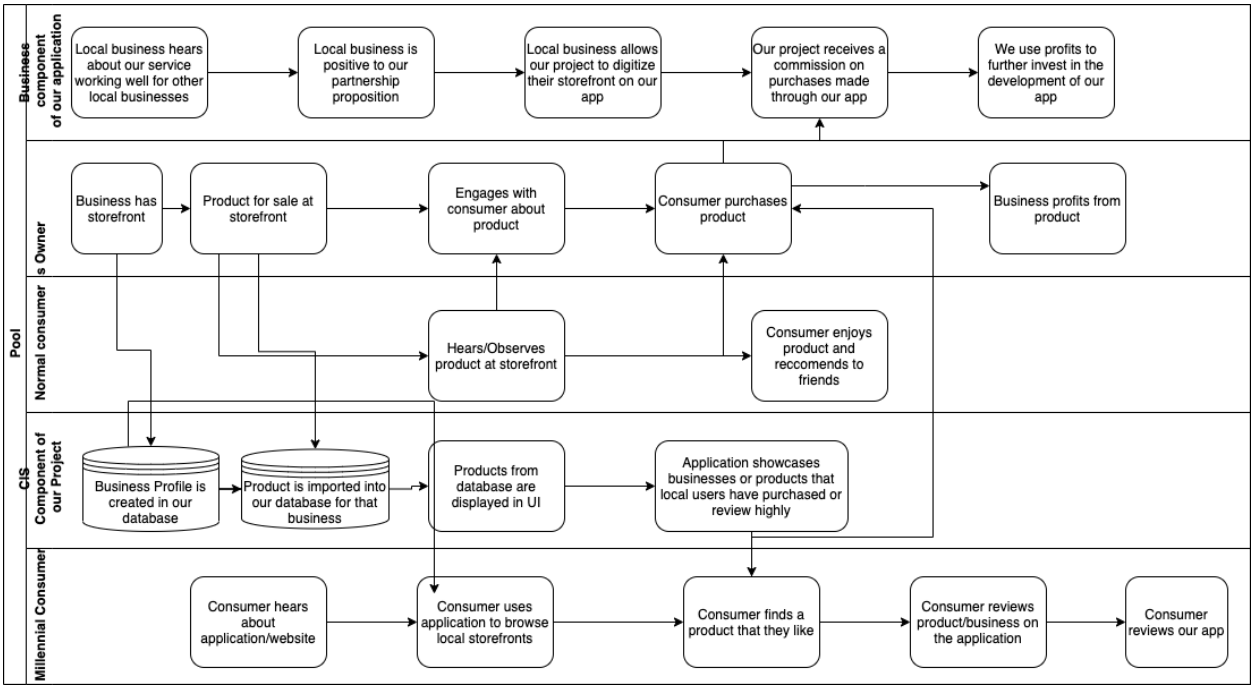
The agile method that caught my eye when reading through them was the Dynamic System Development Method (DSDM). The DSDM method prioritizes incremental and iterative design, both cornerstones of agile development. DSDM is also focused on the business needs, which is crucial for my project since we are going to have to partner with small business owners. This project won't even get its feet off the ground without small business owners and thus their input should be paramount in development.

DSDM outlines eight principles that will guide the team throughout the project. First, focus on the business needs, which I just explained why I feel that will be important. Second, deliver on time. Delivering on time will ensure that business owners and users will have a good attitude about the project. We could sell them the world, yet if we don't deliver on time our project would be the antithesis of what we set out to do, provide a user friendly and comprehensive digital experience for customers and business owners. Third, Collaborate, which we all know is valuable when developing any project. Four, never compromise on quality. We know millennials are looking for high quality products from small businesses, therefore it would not make sense to have a low quality service. Five, build incrementally from firm foundations. Six, develop iteratively. Seven, communicate continuously and clearly. Eight, demonstrate control. The last few rules I find particularly relevant to our project. It is important for business owners to see mindful iterations built with the intention of improving their experience, while valuing their input and feedback.

The last area I will discuss in regards to DSDM is their MoSCow technique for prioritizing work items. MoSCoW stands for Must have, Should have, Could have, and Won't have. This is a very logical way of looking at what features to implement and their importance during development.

The reason I believe Lean methods will assist this project specifically is due to the ever evolving nature of our modern economy. Since the internet's birth, our society has been changing at an unprecedented rate. With companies like AirBnB, Postmates, and Uber rising from small startups to industry leaders in just a few short years it is vital to our project's success to eliminate waste and efficiently generate value. For example, in just three years Uber went from an idea, to closing a $32 million dollar funding round in 2011. This without a doubt would not have happened had Uber not utilized Lean methods and provided a great Minimum Viable Product to demonstrate its value to investors and users.

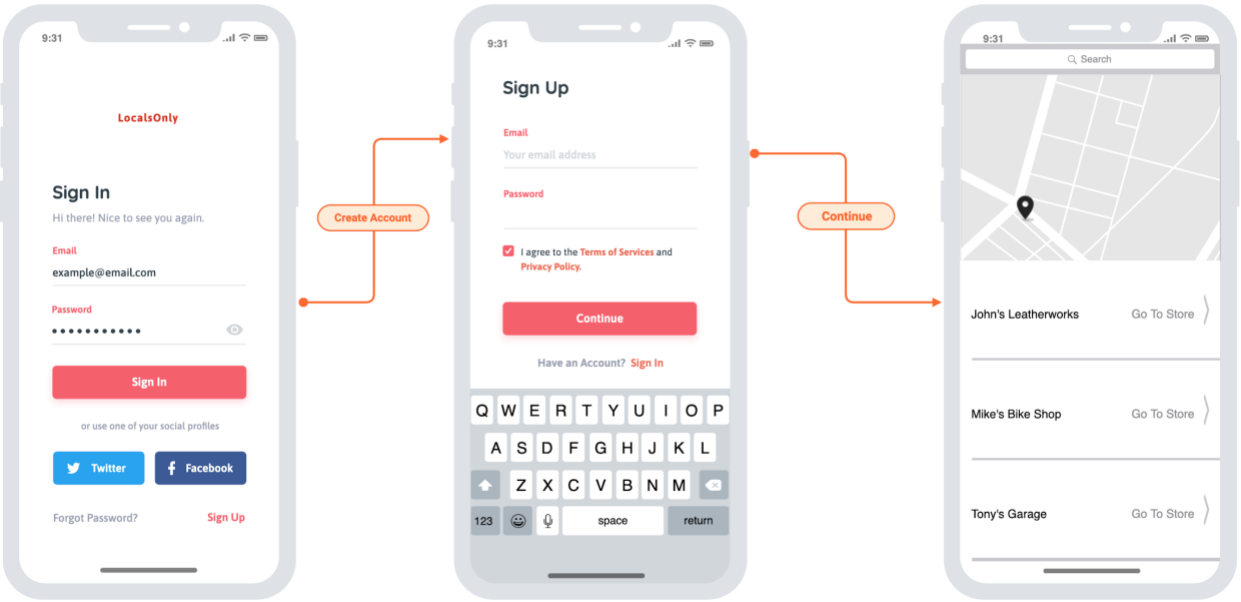
Business Process Model & Notation:

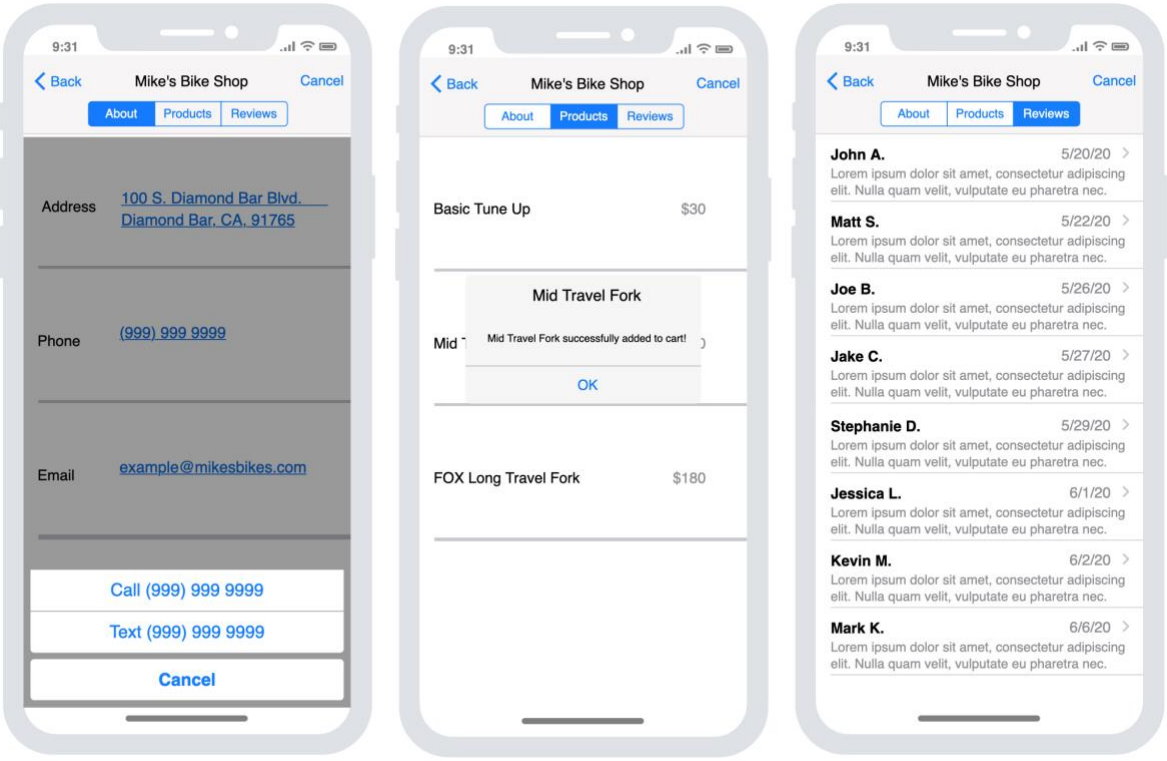


Our business process model focuses on making local businesses more convenient for millennial consumers to support. Since millennials make 60% of their purchases online, it only makes sense that local businesses would benefit from an online component. This project would make a commission on all purchases made through the app, while at the same time supporting

local businesses. This diagram allowed me to further understand where this product would get it's revenue streams from. A commission and monthly maintenance fee would provide us consistent cashflow to continue developing the service to further benefit both groups.

UI Wireframes & Storyboards:




9:31
Back
Mike's Bike Shop
Cancel
About
Products
Reviews
Address
100 S. Diamond Bar Blvd.
Diamond Bar, CA, 91765
Phone
(999) 999 9999
Email
example@mikesbikes.com
Call (999) 999 9999
Text (999) 999 9999
Cancel
Basic Tune Up
$30
Mid Travel Fork
Mid Travel Fork successfully added to cart!
OK
FOX Long Travel Fork
$180
John A.
5/20/20
Matt S.
5/22/20
Joe B.
5/26/20
Jake C.
5/27/20
Stephanie D.
5/29/20
Jessica L.
6/1/20
Kevin M.
6/2/20
Mark K.
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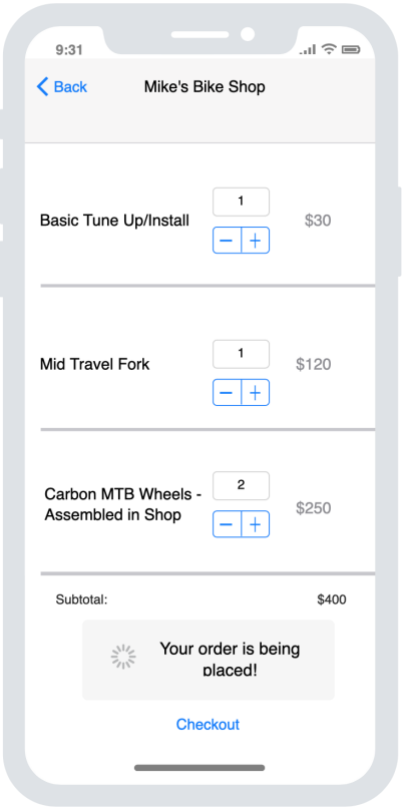
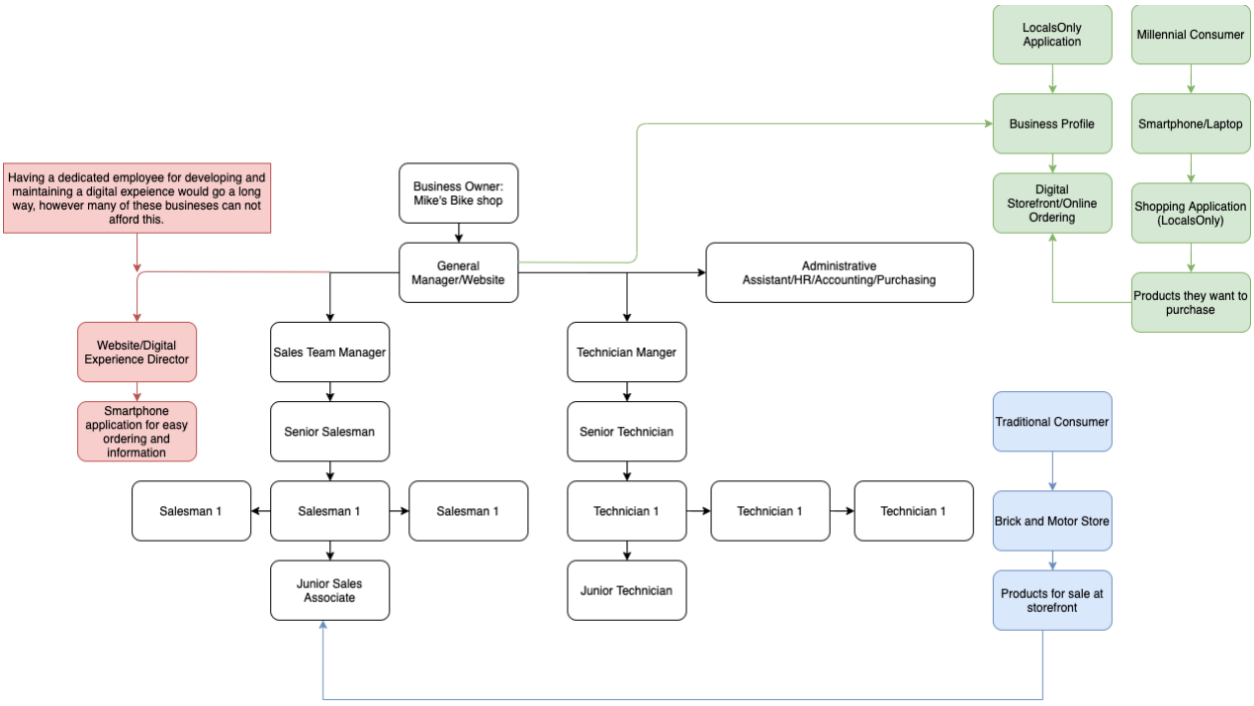

9:31
Back
Mike's Bike Shop
Basic Tune Up/Install
1
$30
Mid Travel Fork
1
$120
Carbon MTB Wheels - Assembled in Shop
2
$250
Subtotal:
$400
Your order is being placed!
Checkout

Pictured above is our storyboard layout for the iOS application. Building the storyboard I had to understand why apps like DoorDash and Target are so omnipresent in todays society. Providing consumers with efficient ways to shop is important which is why I tried to make the UI for this application as simple as possible. Today's online consumers are already bombarded by choice and often paralyzed by indecision so it will be important for this application to be intuitive and provide relevant information. This application will allow you to create an account with us, once logged in the user is able to view a map of their local area and see the businesses that our partnered with us. The user is then able to select a business, where they are able to view contact information, products, and reviews. In a later update we will add reviews for specific products, and the ability to track orders within our app. I also intend to add a component for the business owners that allows them to track orders, and see detailed analytics based on customers preferences. For now, the app will just forward orders through to the business, allowing the owners to build invoices for these customers.

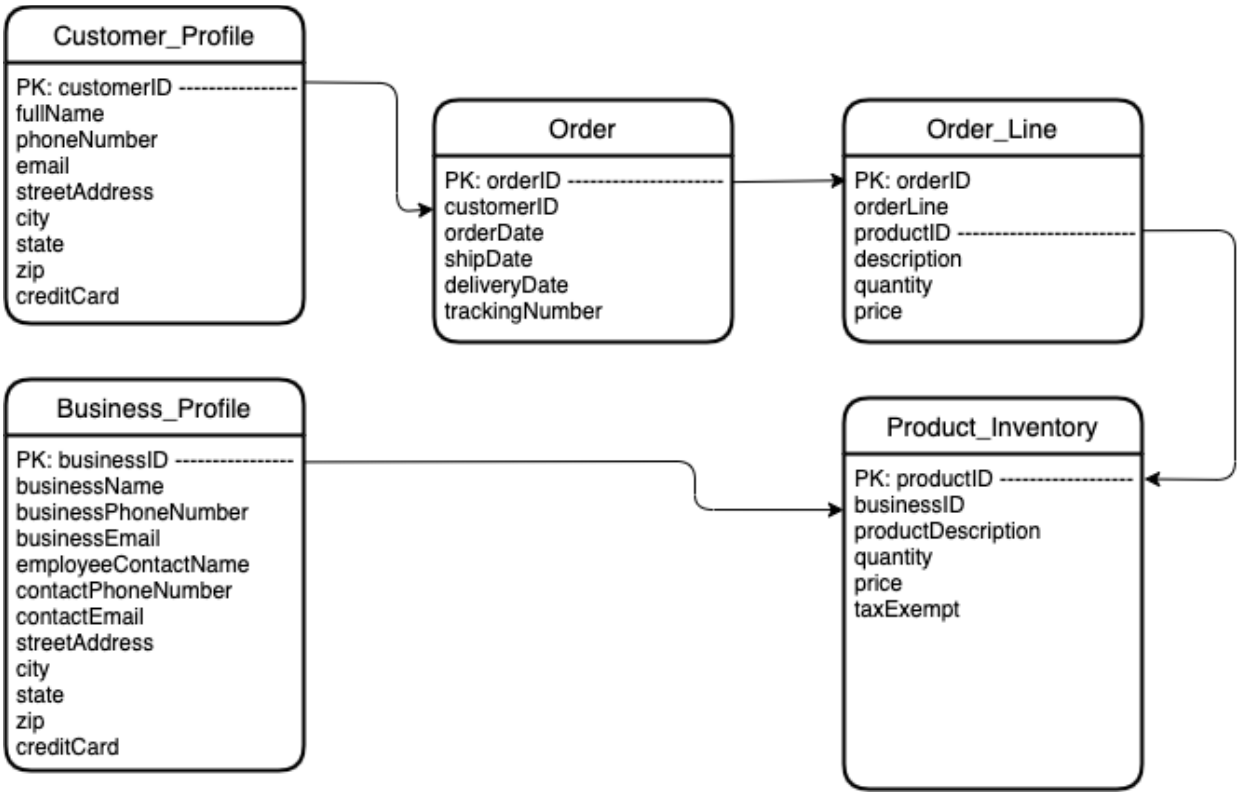
Organizational Chart:



Pictured above is the organizational chart I've created for my project, which as of now I I'll be calling Locals Only. This diagram forced me to think of how it exactly our app will interface between consumers and businesses. I had to think about which person should be handling incoming orders, surely the owner would not want dozens of orders to fulfil. I decided it would be important to have a designated contact at this business who would be our dialogue channel with a particular business. The white flowchart is an example organization of a local bike shop. It consists of fifteen employees with most of them being technicians that can install and build bikes for consumers. The other large group of employees we see is the salesman that are out on the floor to provide knowledge to consumers and help sell the products. In my example we have one employee who is the general manager and also in charge of the website. Since he has to be responsible for two wildly different roles its easy to understand why small businesses usually have rudimentary websites with basic information. In the blue we see the

route of a traditional consumer that is shopping in person at the storefront. They will more than likely talk with sales associates and get the information they need to make a purchase. In the red we see what larger companies usually do, they have a technology director and maybe a few employees below them that are responsible for maintaining the technology side of their business. This could include IT responsibilities as well as a website that allows consumers to order goods from the website, and maybe even chat with support. Traditionally, this department is not a luxury many small businesses can afford. In green we see the usual track that a millennial consumer takes to purchase products these days. We also have our application in green. This project would work with the general manager and maybe the owner to create a business profile and build a digital storefront that allows millennial consumers to view their products and services from within our service. As we can see there really isn't an easy way for a millennial consumer to order products from this shop without going to the store in person. Our service will stand as a liaison between brick and mortar shops and online consumers.

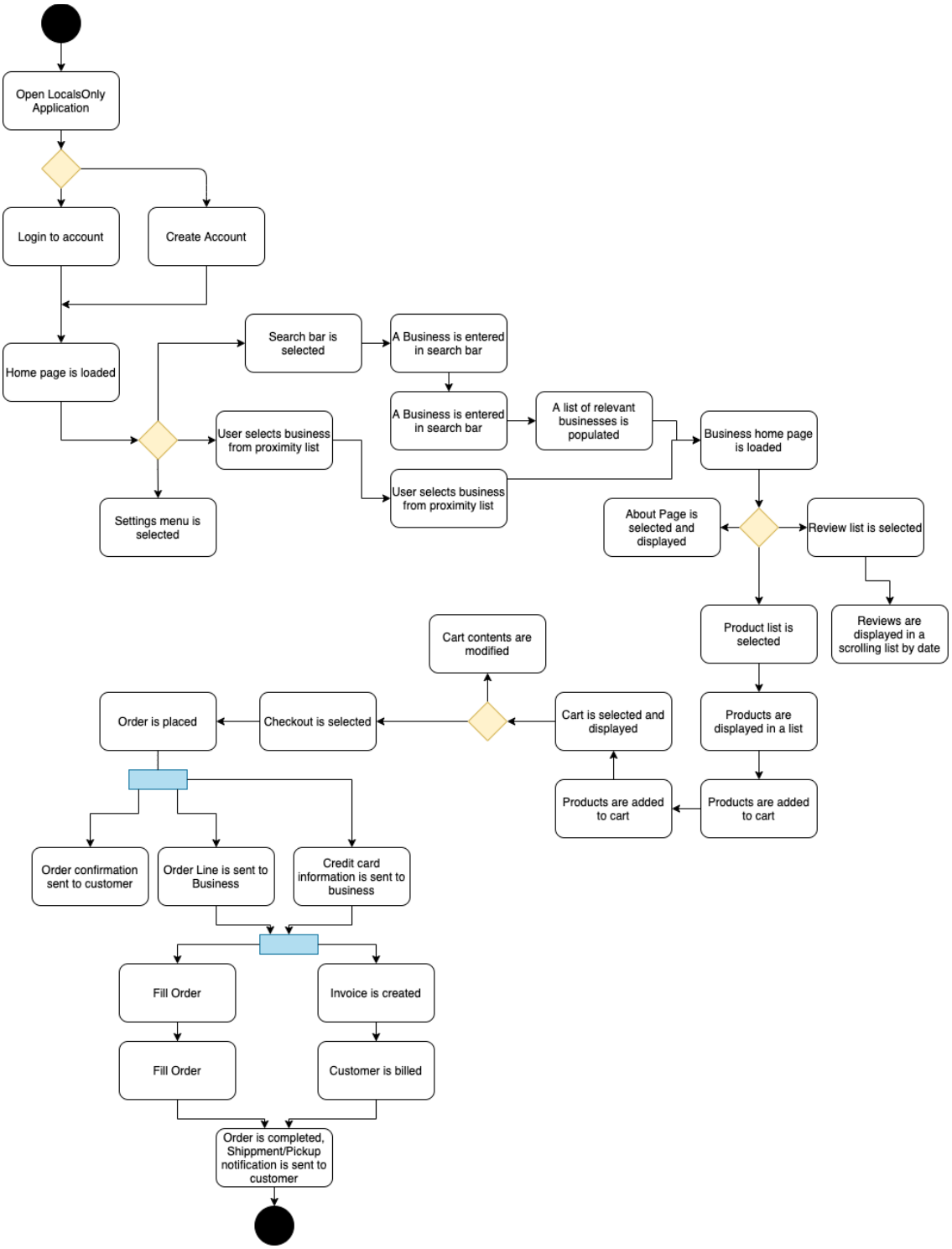
ERD for Database Design:



Pictured above is the ERD I made for this project, Locals Only. This diagram made me consider what attributes would be important to build out in our database. After all we were going to need to keep track of consumer information, business information, and order information that can be easily referenced for either the consumer or the business. It all starts off with a customer profile and business profile. These profiles contain vital contact and payment information. Under the order entity we see that it has a unique orderID and is tied to a customerID from the customer profile. The next entity is the order line, which compiles all of the products that the customer ordered, the quantity, and the price. The order line will contain the productID for each product in the order line, which will be tied to the product inventory entity. Our product inventory entity contains the necessary information about a product and which business that product is tied with via the businessID. I also included a tax exempt attribute for this entity to account for services a

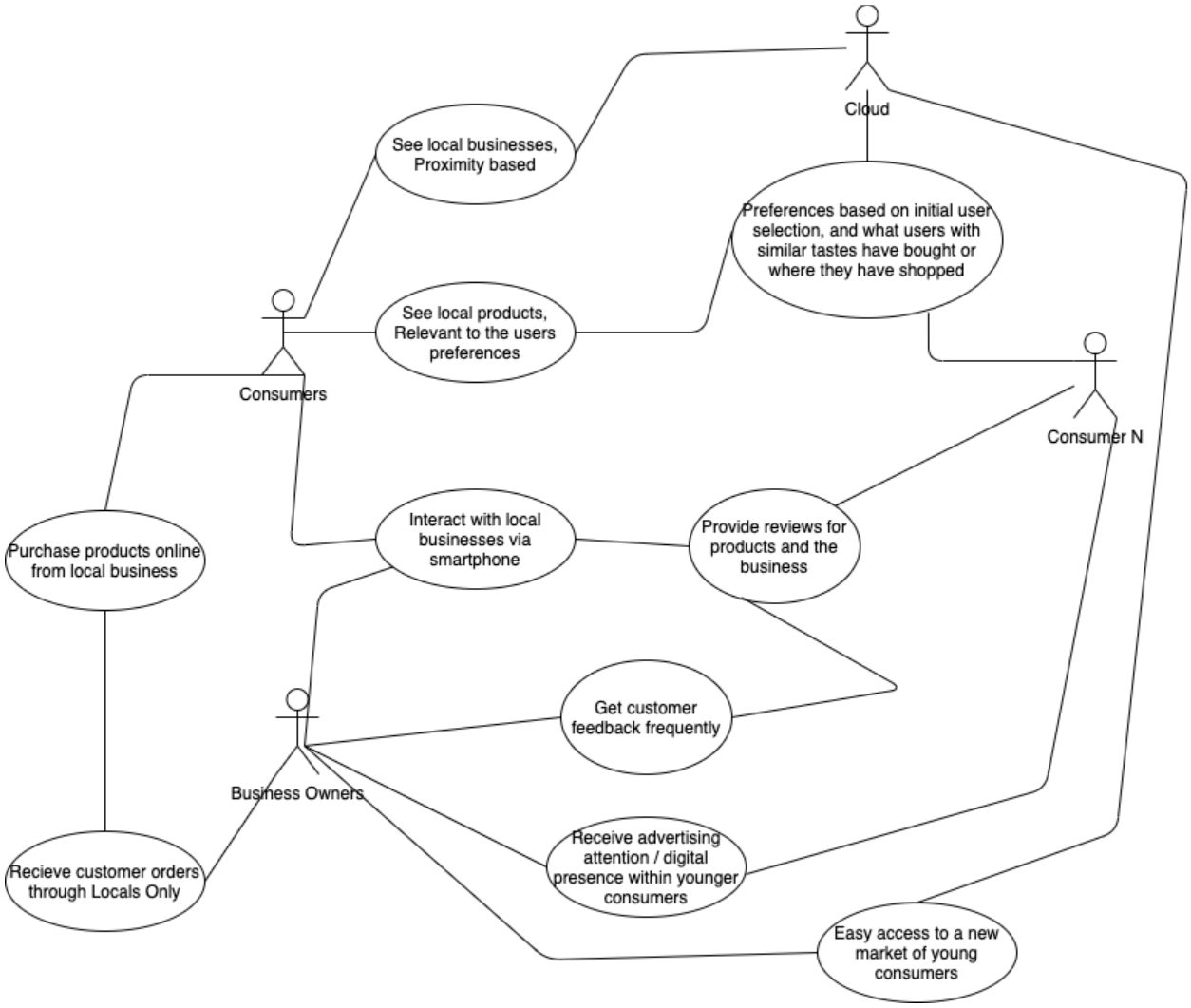
business may provide I.E. Installation of parts/labor. Im sure there are some ways that I can expand upon this ERD, however I believe this is a great starting point that contains the attributes necessary for a MVP. In the example order placed in our storyboard, the customer ordered: a tune up and installation, a mid travel fork, and two custom assembled carbon wheels. This order is all able to be organized via the ERD I created. From there, Locals Only can forward an email to our main contact with that business, the general manager, who can then delegate the order to sales associates for the requested parts, and technicians for the install when the customer comes in.

Activity Design:



Pictured above is an activity diagram of a user making an order using our app Locals Only. This diagram had me referencing the storyboards I had designed earlier and figuring out exactly how users would navigate through the application. It is far to detailed to walk through each step, however I will outline the basic process. The first part of the diagram is getting a user logged in if they have an account or creating an account if they don't. The next process is centered on the user finding the business they want. Following that, the user browses products and fills a shopping cart. Then the user completes the checkout process and is sent an order confirmation email. At the same time the order line and credit card information are sent to the business. The last part is centered around the business billing the customer, receiving payment, and fulfilling the order. The last step of the process is where the user is emailed that their order has either shipped or is ready for pickup.

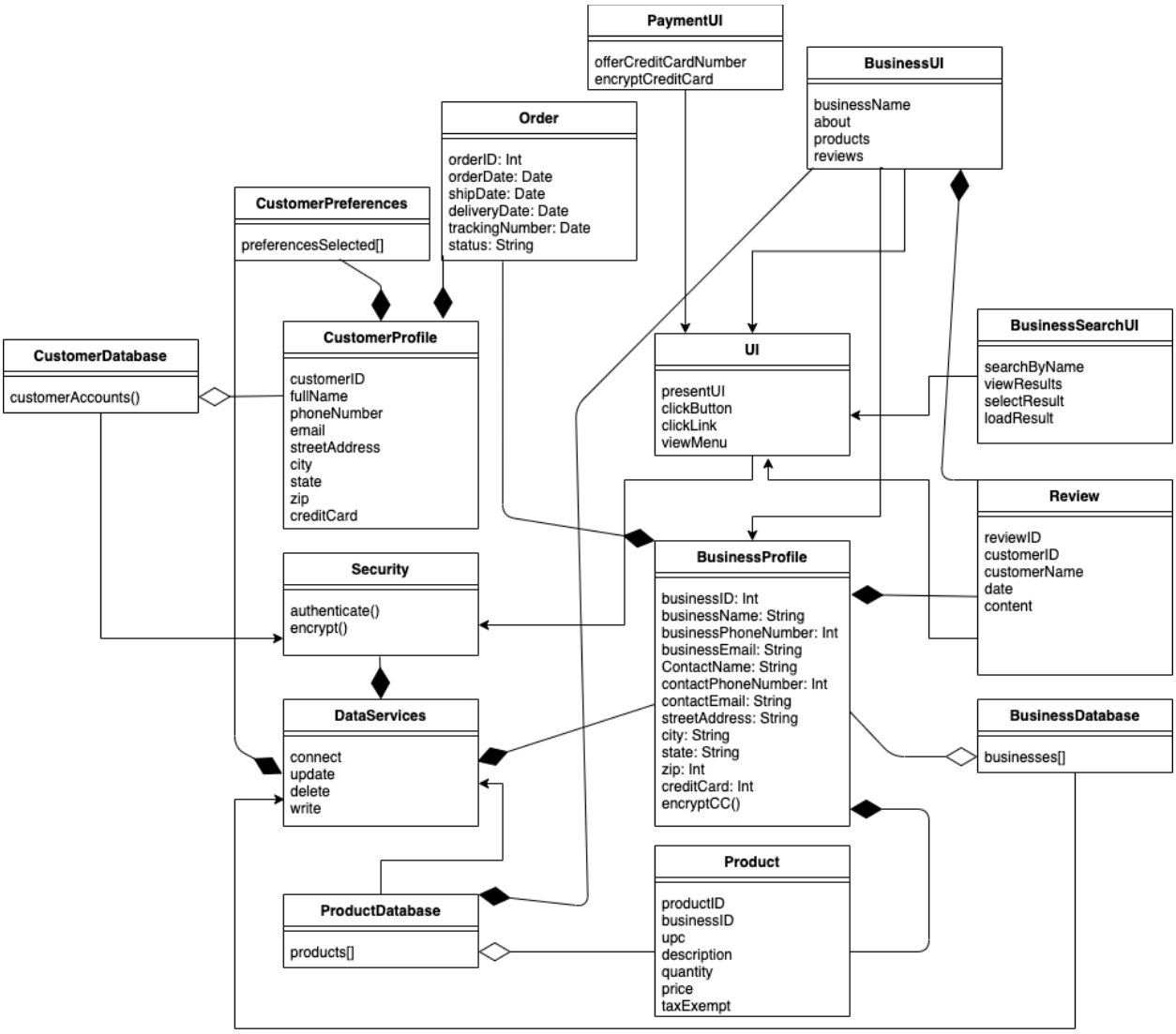
Use Case:



Pictured above is my use case diagram for Locals Only. Creating the use case made it vital to think about how each group will interact and what they will be getting through that interaction. As we can see via the various use cases and actors displayed our project will serve many purposes and utilize three main actors: consumers, business owners, cloud integration. Consumers will have the ability to see local products, that are relevant to their preferences. Consumers will also be able to see what consumers with similar preferences are purchasing/looking at via the cloud integration. Consumers will be able to conveniently interact

with local businesses on a previously untapped communication channel. Consumer will be able to find local businesses in close proximity to their location via our database in the cloud. Lastly, and most importantly consumers will be able to conveniently purchase products and services from local businesses via a smartphone application. Business owners will be able to receive customer orders through our application, receive frequent customer feedback, and build a digital presence in a new demographic of consumers. This increased digital footprint will also double as marketing and allow them to expand the reach of their business through various social media platforms if they wanted. These use cases will provide a functional and convenient experience for multiple actors. In the future, this service may help stimulate rural economies, which would provide potential partnerships with the rural towns, thus increasing our user base and the incentive for local businesses to join our project.

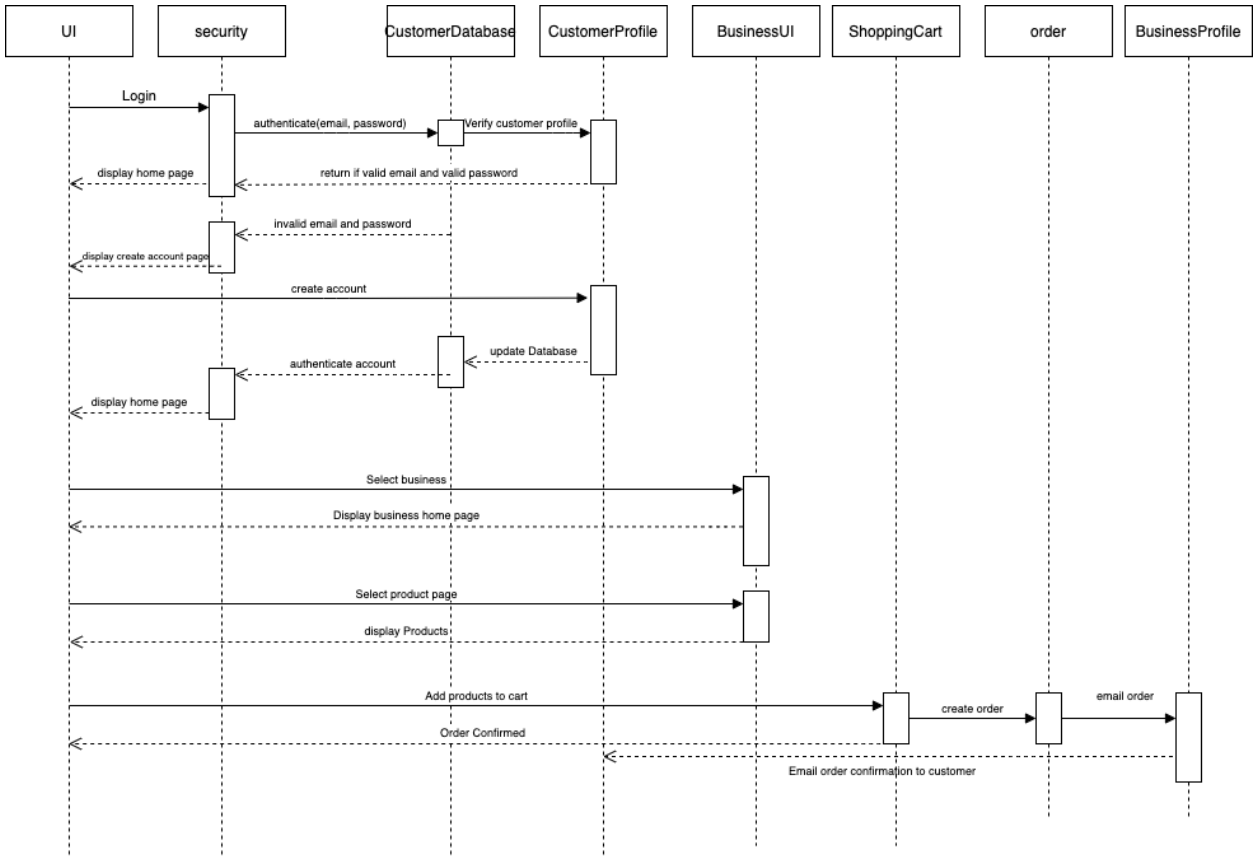
Class Diagramming for OOP:



Pictured above is a diagram of some basic classes that would be necessary when building this application. Creating this class diagram allowed me to walk through what the foundation of this app will need to be in order to fulfill our objective. The two main classes that we have discussed for a few weeks now are the customer profile and the business profile. These classes would contain the various attributes of a customer or business that would need to be displayed throughout the app. Customer Profiles have preferences and orders. Orders allow customers to get vital information about orders they have placed. Business profiles have orders, products, and

reviews. The product class is aggregated inside the product database class. The business profile is also aggregated inside the business database class. These database classes help keep large quantities of profiles, and products organized. They also tie in with the data services class that allows them to be updated and edited. There are various UI classes that are inherited by the main UI class. This allows developers to speed up development time and write less redundant code. The security class contains the necessary methods for ensuring a secure transaction. I know that this can be streamlined and expanded upon, but this will provide a great foundation for developers to begin building out the LocalsOnly application.

Sequence Diagram:



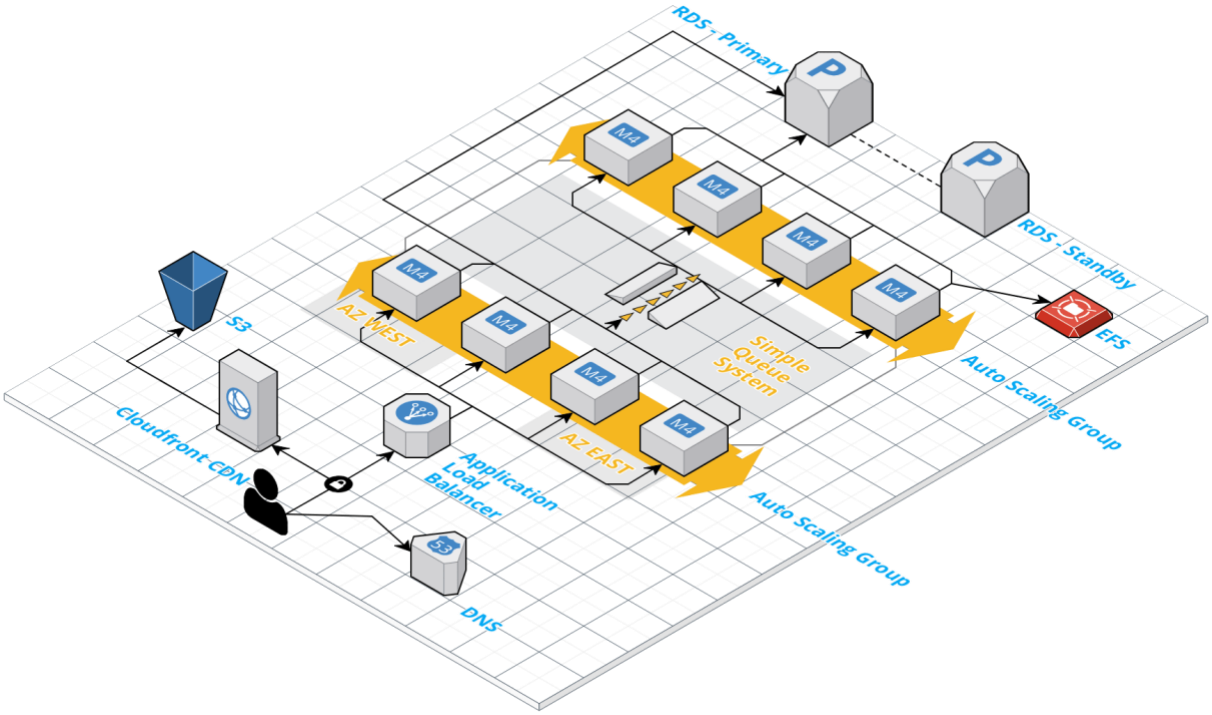
Pictured above is my sequence diagram. Creating this made me think about how all of these classes will be relating together during a normal use scenario. I had to go back and revise my class diagram multiple times while building my sequence diagram. This diagram shows the process of a user logging in, authenticating the credentials with the customer profile in the database, and then displaying the home page. Alternatively, if there is not a valid account it will take the user to the create account page. This will allow the user to make a customer profile, update the database, authenticate the account, and then display the homepage. Once at the home page, the user is then able to select a business, add products to the cart, and place the order. Once the order is placed, the business is emailed. Once the business receives the order, the customer is emailed a confirmation. While building this sequence diagram I realized that I need a class for a shopping cart, which would then build an order line. This will provide a more detailed and organized order for the business to fulfill.

Continuous Development:

For LocalsOnly, I definitely think it will be important for our team to use continuous integration. With continuous integration our team would need to build out a diverse array of tests that can validate a new feature. If the feature passes the test it will be pushed to the main branch. If the feature does not pass its necessary tests the developer will have to go back and analyze the code to figure out what went wrong and how to fix it. I like that it will keep developers from moving on to a new feature and needing to relearn the context of old code if they need to fix a bug. Relearning older code is a time consuming process that will slow down our development process. After researching the different methods of continuous development, I found myself gravitating towards continuous delivery. This will allow project managers, and senior developers

to really test and look at the code with a fine tooth comb before they decide to deploy the code. I think it is important for our team to analyze the code as a whole before deploying a new release. I did like the idea of continuous Deployment, which automates the deployment process and gives users access to new features and updates far more often, but in order to implement continuous deployment our testing would have to be extremely thorough to minimize bugs in deployed updates. Ensuring that testing is thorough is something that would take time for our team to do. As our product matures and our development team begins to find their groove, I think we can look towards transitioning towards a continuous deployment strategy. In the early stages of development it will be crucial to ensure our updates are meaningful and packed with neat features to bring in a wider user base. I think that building out a thorough testing methodology is going to be a lot easier when deployment is manual and we can iterate on our tests as we see fit. As our team grows, project managers will need to coordinate with other departments in order to implement continuous deployment.

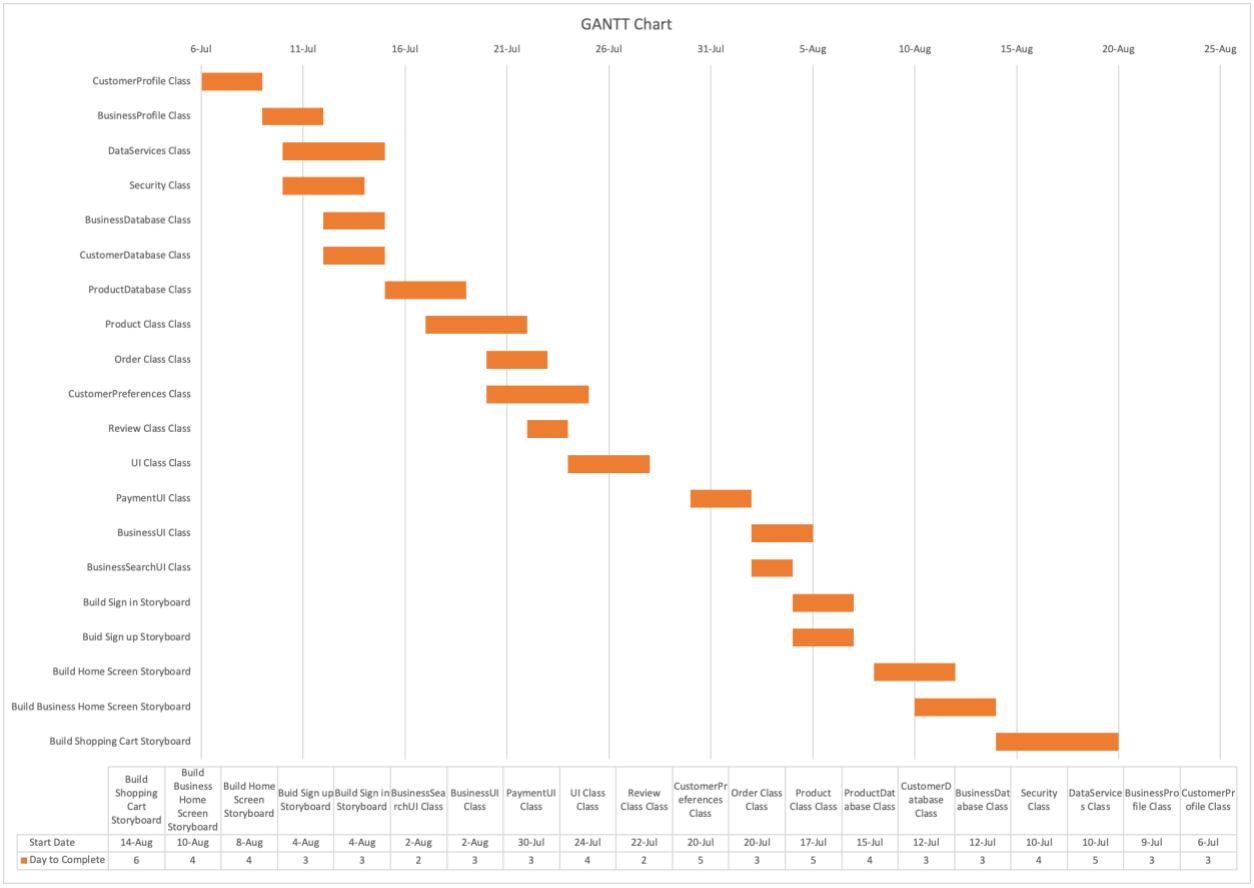
Network Diagram & Software Architecture:



Pictured above is the network diagram I created for LocalsOnly. Creating a network diagram made me think about how we can best deliver our convenient service. If The diagram starts with the user, where we have a Route 53 DNS, which will convert IP addresses to traditional domain names you are used to seeing on the internet. The CloudFront Content Delivery Network (CDN) allows our platform to cache content and reduce load times for the user. The Application Load Balancer will allow us to distribute incoming request in our first Auto Scaling Group. The ASG gives LocalsOnly the ability to distribute requests to virtual instances of our web server based on region. This will ensure that our servers balance the load properly. The Simple Query System will query and distribute messages across the network. These messages will commonly be producer-consumer problems. Since it is highly scalable and stores redundant copies we can ensure that critical messages are not lost. The optional ASG consists of four EC2 instances that can handle requests that need to be distributed to our

Relational Databases and Elastic File System. Since our data is split between the S3, RDS, or EDS we can easily add, remove, or scale our instances without any interruption. I also have a replica RDS in event of a failure with our primary RDS.

GANTT Chart:

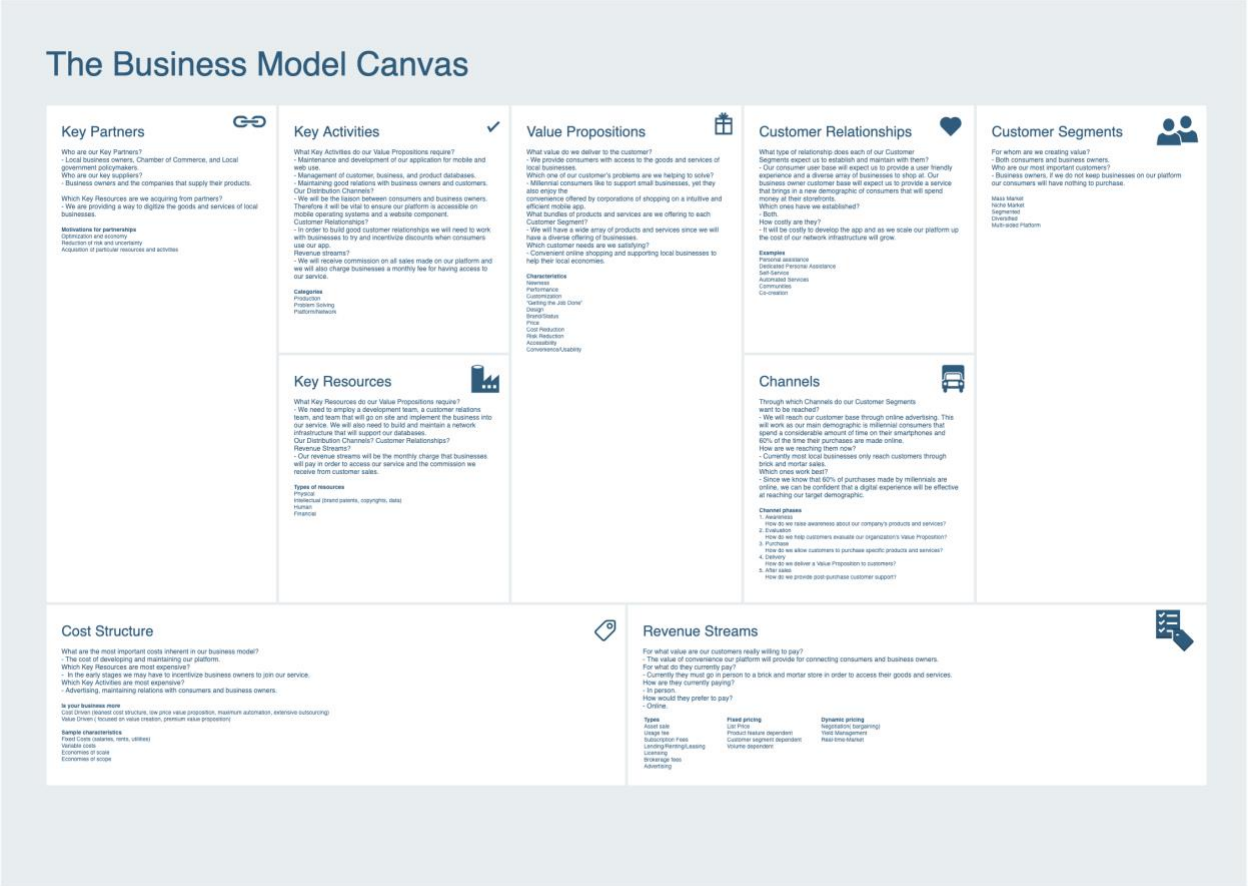


	Build Shopping Cart Storyboard	Build Business Home Screen Storyboard	Build Home Screen Storyboard	Buid Sign up Storyboard	Build Sign in Storyboard	BusinessSearchUI Class	BusinessUI Class	PaymentUI Class	UI Class Class	Review Class Class	CustomerPreferences Class	Order Class Class	Product Class Class	ProductDatabase Class	CustomerDatabase Class	BusinessDatabase Class	Security Class	DataServices Class	BusinessProfile Class	CustomerProfile Class
Start Date	14-Aug	10-Aug	8-Aug	4-Aug	4-Aug	2-Aug	2-Aug	30-Jul	24-Jul	22-Jul	20-Jul	20-Jul	17-Jul	15-Jul	12-Jul	12-Jul	10-Jul	10-Jul	9-Jul	6-Jul
Day to Complete	6	4	4	3	3	2	3	3	4	2	5	3	5	4	3	3	4	5	3	3

Pictured above is the GANTT chart I made for developing LocalsOnly. Under ideal conditions we can see that it will take about two months to develop. I would estimate conservatively that it will take 3-4 months to build in the real world. These estimated days to complete also depend on the size of the development team. This allowed me to start understanding the order at which the different building blocks will need to be built in order to deliver a MVP as efficiently as possible. Leaving the storyboard to last allows developers to test

the interaction of their classes via the backend or a simple UI, once it is functional they can implement a user friendly UI that is polished and carries a consistent design.

Business Model Canvas:



Above is our Business Model Canvas. This chart goes over the key partners, activities, resources, value propositions, customer relations, and finances of the project. The key partners we will need to get involved will be business owners and local policymakers. The key activities we will be involved with will be the development and maintenance of our platform, maintaining relations with consumers and business owners, developing a reliable network infrastructure that can be scaled up with our user base. Our value propositions include connecting millennial

consumers, who prefer to shop online 60% of the time, with local businesses. Providing a new demographic for small businesses will provide a large economic opportunity for owners and a convenient way for consumers to support their communities. Customer relations will be another important segment for our service. As a liaison between consumers and business owners it will be important to stay on good terms with both. We can do this by having a dedicated customer relations team who can deal directly with business owners and consumers who need assistance or want to provide feedback. The costs of our service will be developing and maintaining the service, the associated costs of building a network infrastructure, and advertising. Our revenue streams will be through a monthly charge to the business in order to be listed on our service as well as a commission on each sale.

Evaluation of Product-Market-Fit:

In order to evaluate the product-market-fit of our platform LocalsOnly, we must go back and look at the diagrams we made in the early stages of this project. Our beginning diagrams are heavily based on just what factors small businesses have to compete with in the 21st century. As the project progressed I found myself looking at how it would be possible to minimize the inconveniences of shopping at a small business. Looking at our SWOT analysis, we can see that our strengths and weaknesses have not changed as millennial consumers still need a convenient way to shop at local businesses. The weaknesses of a small business are that their product offering is much less diverse, they are not open for the long hours that long corporations are able to be, and they usually have a single location making it inconvenient for millennial consumers to purchase from them. Our platform LocalsOnly will be taking on the role of a liaison between millennial consumers and local businesses. Allowing consumers to purchase products from local

businesses via their preferred channel, online will benefit both the consumer and the businesses. As of 2019 DoorDash is now worth 12.6 Billion dollars. DoorDash is a similar platform that allows local restaurants to provide delivery to customers. This benefits consumers that value the convenience of food delivery and the restaurants that don't have a delivery service. One of the main opportunities listed on our SWOT analysis is that millennials are now the largest generational demographic in the United States. Providing a platform that will connect local business with the largest demographic in the country is a massive economic opportunity as is evident by DoorDashes recent valuation.

Looking back at our Porter's Five Forces diagram we can see that currently the market we would be entering is relatively untapped aside from the food delivery apps like DoorDash, Postmates, and GrubHub. Those services are focused on the restaurant delivery niche whereas LocalsOnly will be focused on mom and pop shops of all different kinds. The supplier power section of the diagram still holds up as we will have a diverse array of businesses which will help make our service scalable, resistant to changing industries, and ensure that we can survive recessions. The only substitution for our service currently is to shop at a chain store with an online component or to visit a local business in person. The competitive rivalry of our industry service is fairly low since there are no other similar services. That being said Yelp, Google reviews, and Amazon provide some of what our service will provide. LocalsOnly intends to be a complete package for consumers and will support the small businesses in their neighborhoods.

Our Business Model Canvas analyzes the key partners, key activities, expenses, and revenue streams. The key partners involved in the service will be the business owners and local policymakers. The key activities will be developing and maintaining our codebase, managing the databases, and maintaining customer relations. The revenue streams will be through a monthly

service fee and commission from each purchase. This will ensure we have a consistent cash flow. Having a consistent cash flow will allow us to spend money marketing and further developing the service to provide more value for our customers.

After reviewing the diagrams we did at the beginning of this project I believe that LocalsOnly will meet the needs of our target demographics and provide value to both the consumers and the small businesses that we partner with.

User Analytics:

In the past ten years we have seen the rise of big data and it is only getting more important to collect analytics of our user base to ensure relevant products and businesses our showcased.

Our analytics begins with the customer and business profiles, where we collect basic information like age, gender, location, and business type. From their LocalsOnly will implement a preferences class. This class will allow users to select initial preferences when they create their profile. Next, it will be important to relate user demographics in the cloud so that user preferences can grow organically based on their trends and the trends of similar users.

The next important step to building a comprehensive analytics package is allowing users to link their social media profiles. Once we have access to that we can tap into the respective UI and build a shopping experience tailored around their online presence. If a user's Instagram profile reveals that he likes outdoor content and is a rock climbing fanatic, LocalsOnly can provide local storefronts that carry rock climbing and camping gear.

The last piece of analytics that I would plan to implement in LocalsOnly would be offering this data to our partnered businesses for small monthly fee. It would be extremely

valuable for a business owner to find out that for example, consumers that our male, 18-25 years old, living in the westside, with outdoor centered social profiles usually end up shopping at a business that carries Patagonia products. This will allow business owners to carry relevant inventory and in turn boost their sales with a given demographic.

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