



University of Ontario Institute of Technology
Faculty of Engineering and Applied Science

Lab #2: Uber Rush Project

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Background Information:

Why?

By the year 2021, 2.14 billion people are expected to be buying goods and services online. With Uber's current active user base and with their current infrastructure within the ride-sharing and food delivery applications, Uber Rush has the potential allow users the option of shopping online at local and neighbouring stores while allowing them to receive real time GPS tracking of their goods, all with speed in mind. With the increasing demand for online shopping and convenience, Uber Rush can meet these demands while allowing users to keep track of their delivered items in real time.

Problems and Solutions

As mentioned above, several consumers are making the switch to online shopping. With the convenience of online shopping comes potential issues that Uber Rush looks to put an end to.

The first issue Uber Rush looks to solve is the waiting times for consumers when ordering items online. Since Uber Rush provides consumers with the option of buying items online from local stores there is no longer a need to wait a few weeks for items to be delivered from across the world like traditional online shopping.

The second issue Uber Rush looks to eliminate is the uncertainty of online shopping. The use of real time GPS tracking can allow users to see where their item is currently and how long they can expect to receive their goods. Since these items are expected to be delivered as fast as ordering food from the UberEats application, consumers know when and where their package will be at all times until it is delivered to them in person. This also puts an end to consumers having unattended packages being stolen from their homes.

Finally, Uber Rush can help local brick and mortar businesses, both small and large, follow the new trend and start selling their products online. Uber presented businesses with a similar solution through UberEats. The traditional model for food delivery services allowed users to go to a particular restaurant's website and order food from this restaurant exclusively. Due to the high overhead cost of setting up an online portal which includes website development, design and maintenance, security issues related to payment processes, and hiring a delivery driver exclusively to the restaurant, there were far less restaurants available for consumers to choose a delivery option from. With the introduction of new technology, a centralized food delivery platform has emerged which allows customers to select different varieties of food from different partnered restaurants in one place. The algorithm then sends information to delivery personnel who are located near the selected restaurant and are on standby, allowing the food to be delivered as soon as possible. This same level of thinking can be applied to online shopping. Users will have the option of shopping online at local businesses because it will now be easier for businesses to set up an online presence without having to worry about the technical aspect of it all. Also, since Uber Rush provides businesses with the workforce (delivery drivers) businesses can carry on with little to no changes being made to how their day to day operations are handled.

Ultimately, Uber Rush looks to combine the old and the new by allowing local businesses to have an online presence and meet the growing demands of a population shifting to online shopping as their preferred method of shopping.

Objectives:

1. Create a mobile application that is accessible through both the android and apple platform.
2. The mobile application should have three different logins and UI for consumers, business owners, and delivery drivers.
3. The consumer UI should allow users to select and buy products of interest while also keeping track of their order.
4. The business side of the UI should allow the business owner to add items they want to sell including the price, quantity, description of item, inventory management, payment processing, and when deliveries have been completed to the customer.
5. The driver's UI should display the location of pick up, order pick up alert, a GPS enabled map for direction, drop-off location, limited and minimum information about both business and consumer (for privacy reasons), and E-signature integration on their mobile phone.
6. Both consumer and business should be able to view the status of the item (waiting to be picked up, delivering, delivered, and so on), and the approximate location of the item based on GPS location fetch from the delivery driver's application. In the other words, the driver application should able to respond to data request and, in particular, location data.
7. The first iteration of the product should be completed within a three month period and should include all functional requirements for driver/business/consumer application.
8. Database integration should be easy and fast, allowing real-time data query and updates

Measures:

1. **Interface:** Easy and convenient interface for business owners, consumers and drivers.
2. **GPS:** GPS provides all parties accurate information about product location at any given time.
3. **New Platform:** Providing small businesses a new platform to advertise and sell their goods while providing larger, established businesses an additional channel for sales.
4. **Budget:** Staying on or under budget while finishing the application on time by meeting internal deadlines of 2.5 months and having the app ready for release within 3 months.
5. **Active Users:** Reaching the target goal of amount of active users on the application. Uber had approximately 75 million active users in 2017 while UberEats had 8.7 million active users in the first financial quarter of 2017 after launching in 2014. With these figures, we look at a conservative figure of 8 million active users within 3 years after launching Uber Rush.
6. **Active Driver:** Expecting a 20% increase of active RUSH drivers by the end of the 1st year of launching Uber Rush.

7. **Partnered business sales:** A minimum 25% increase on sales by the end of the 1st year of launching Uber Rush.

Required Infrastructure:

1. An inventory database for stores who promote and sell their products on our app.
2. GPS software for tracking packages and delivering products.
3. E-signature integration for receiving package for all parties.
4. Payment processor,option for tips and rating and review system for product and delivery drivers.
5. Phone or tablet device that has either IOS or Android installed.
6. 4G wireless infrastructure that allows stable wireless connection