

COMP 3700: Project 5 - Abstract

1. Include group number, members' names, and presentation date. (3 points)

- Group #15
- Group Members
 - Demarco Guajardo
 - Seungheon Kim
 - Subeen Kim
- Presentation Date
 - April 17, 2024 (9:30 - 9:45 am)

2. Explain ideas your group works on (3 points)

- Our group is dedicated to analyzing the functionalities and processes embedded within delivery applications, such as **DoorDash, GrubHub, UberEats, or other food/grocery delivery applications**. Our objectives include achieving a comprehensive understanding of its operational mechanisms.
- **Account Management**
 - We will design how a user can manage their account, such as saving their favorite restaurants, requesting to contact support, changing their first and/or last name, phone number, etc. They will also be able to manage their saved payment methods and addresses (to which the delivery will be sent to). They will also be able to change the appearance of the UI (such as light and dark mode) and change their password.
- **Online Food Ordering and Payment System**
 - We will design the progress of a user placing orders and processing payments within the DoorDash platform. This involves illustrating the intuitive order interface, seamlessly guiding users through menu selections, such as choosing different restaurants, enabling order customization, such as editing the food/combos they would like to order, and ensuring a smooth confirmation process prior to proceeding with payment, as well as available payment methods (e.g., credit/debit cards, digital wallets).
- **Driver Management**
 - We will design a comprehensive system for driver management within the DoorDash platform. This system will enable drivers to sign up for the platform, log in and out of their accounts, accept and reject delivery requests based on their availability, real-time chat with customers, and access delivery history.
- **Restaurant Management**
 - We will design the progression of how an order being placed will lead to a chosen restaurant receiving the order. The restaurant will have two choices when choosing to collaborate with DoorDash, in our scenario. One of them is through the POS (point of sale) system. In this method the DoorDash application would be directly integrated into the restaurant's POS system, allowing the restaurant to receive DoorDash orders directly

into their POS. From that point, like all POS systems in many different restaurants, the order would then go straight to the kitchen to be made, leaving the cooking to the chefs. This method would reduce the risk of human-error. The second choice is via a tablet. For the sake of time, we will only cover the first choice and assume all restaurants integrate DoorDash into their POS.

- **Delivery Tracking:**
 - We will design the functionality that allows users to track the status and location of their orders in real-time. This includes providing users with updates on the preparation, pickup, and delivery stages of their orders along with estimated arrival times.
 - **Customer Service:**
 - We will design a customer service section of our app that will allow users to contact support. They will be given a list of pre-determined options such as “My Current Order”, “My Past Orders”, or a “Ship Anywhere Order”, and if they didn’t want to contact support for any of those options, they could directly call support via the app or use a chat feature.
3. Explain motivations of selected topics and examples (3 points)
- We decided to work on the topic of DoorDash (or food delivery in general) because we realized that, as technology advances over time, real world ideas are becoming technological. We used to have to **ALWAYS** drive from our homes to buy food made by other people. This was to go to sit down restaurants, fast food restaurants, etc. However, now with technology, whether for better or for worse, we have the option to order and buy food online via an app, and it arrives to us while we handle our time doing other things. Whether it’s doing chores, or schoolwork, or playing a sport in your backyard, you can be doing other things while your food is delivered right to you. Because of this new concept that came with the evolution of technology, we thought it would be a good idea discussing how food delivery services like DoorDash came to be and how they function.
4. Describe how your group analyzes examples to present diagrams (3 points)
- For handling the different types of people using the app, we can use a **use-case** diagram to illustrate the interaction between the customers/users (actor), the DoorDash drivers/Dashers (actor), and the Restaurant Managers (actor) all within the DoorDash system which would include different functions (use-cases) depending on the actor using the system.
 - Account Management
 - Register an account
 - Log in/out of an account
 - Update account information
 - Delete account
 - Online Food Ordering and Payment System
 - Browse restaurants and menus
 - Add items to cart
 - Place an order

- Edit an order
 - Checkout
 - View order history
- Driver Management
 - Sign up as a driver
 - Log in/out as a driver
 - Accept/reject delivery requests
 - View delivery history
 - Chat with customer
- Restaurant Management
 - Register a restaurant
 - Log in/out as restaurant manager
 - Add/update menu items
 - Manage restaurant information (hours)
- Customer Service
 - Contact customer service
 - Report an issue
 - Request refund
- For handling the orders, once placed; or for dealing with the status of a delivery driver (Dasher); or for handling payment status; or for handling restaurant status, we can use **state diagrams** to illustrate such functions.
 - Orders
 - Order placed
 - Order confirmed
 - Order prepared
 - Order out for delivery
 - Order delivered
 - Order canceled
 - Driver Status
 - Available
 - On a Delivery
 - Offline
 - User Authentication
 - Logged Out
 - Logged In
 - Logging In
 - Logging Out
 - Restaurant Status
 - Open
 - Closed
 - Payment Status
 - Payment Pending
 - Payment Completed
 - Payment Failed

5. State conclusions relating to your analysis. And if possible, propose some better ideas to improve them (3 points)
- In conclusion, we have come up with a thorough process in how the design of food delivery applications, such as DoorDash work. We were able to conclude that the key components of this project are efficient account management, a user friendly online ordering system, effective driver management, and responsive customer service. Our analysis highlights the importance of a well-structured system that satisfies the needs of all relevant parties, including customers, drivers, and restaurants.