

## **Abstract**

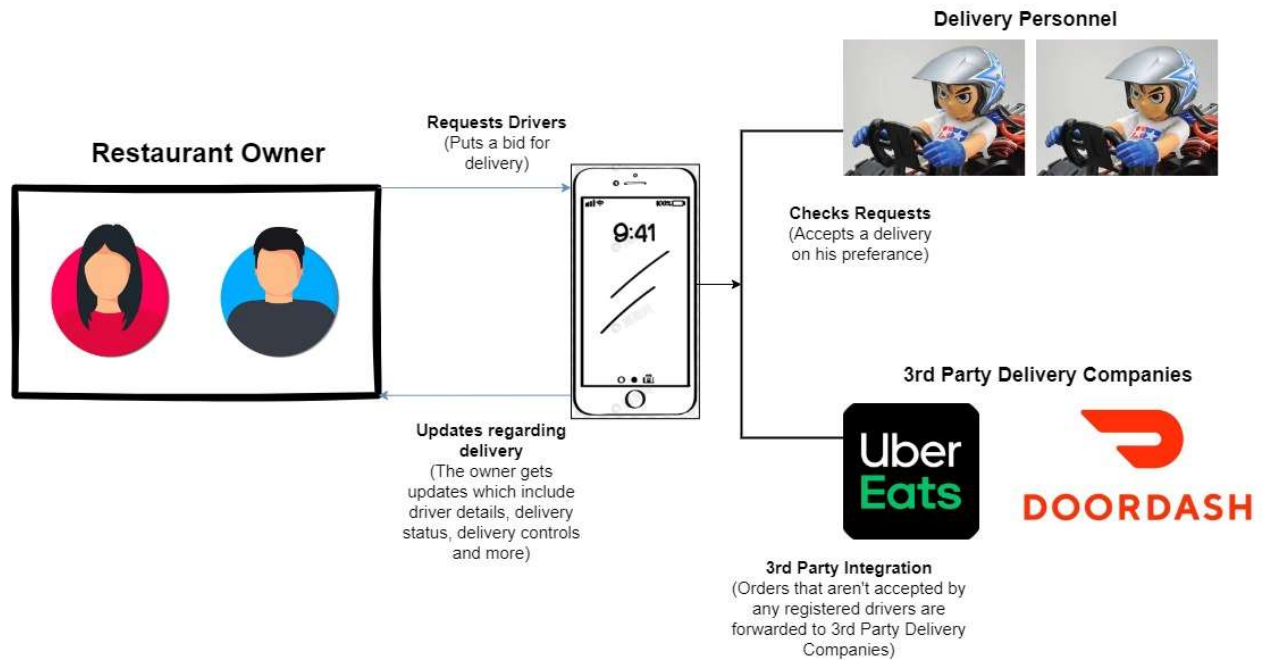
Looking into food ordering solutions from a different perspective we aim to create a solution aimed at increasing the efficiency and ease of use for budding or local eateries. When we delved deeper into the drawbacks of the services currently offered by multiple delivery platforms, we came across the glaring commissions that they charge which eat up the profits of any low margin eateries such that most of the owners operate at a loss to continue using these services.

Using their own fleet of drivers or using high commission delivery solutions are the only options available at present, each has its own drawbacks from being cumbersome and expensive to manage their own fleets or be at the mercy of these platforms.

Our solution is to make a communication portal with a direct link between drivers and business owners, with a unique bidding functionality where the owners can rent out drivers as per their needs by bidding on the task they put out. This eliminates the need for a payroll management system as the payment is done on a task by task basis.

Our solution also aims to create an open channel of communication between the drivers and owners removing the need for any intermediary by implementing a real time chat service.

# Conceptual Model



## Key Scenarios

### Scenario 1:



Jim is a restaurant owner whose business lies in the low-margin group of restaurants. Being a low-profit margin business, Jim does not want to maintain a fleet of delivery personnel and is specifically looking for platforms that provide food delivery services and don't charge a hefty commission rate. He can register on our platform and look for nearby drivers who can fulfill the task.

### Scenario 2:

Joey runs a local pizza cafe that is quite famous in nearby areas. He is expecting a surge in the delivery orders during the super bowl weekend. To ease and manage the orders efficiently, Joey thinks of renting out a couple of drivers over the weekend. He can use our platform to post the job with a bid well before the weekend. The post will be relayed to the nearby drivers, who can then reach out to the restaurant if they find the offer reasonable.



### Scenario 3:



Jack is a restaurant owner who uses our platform for fulfilling his delivery needs. He puts a bid for one of his jobs which none of the available drivers accept. In this case, he can resort to the 3rd party integration option that our platform provides and outsource the delivery using vendors like Uber Eats, Doordash, etc.

## **Key Requirements**

### **User Requirements:**

- The user must have some experience with smartphone and web portal usage.
- The user must be a restaurant owner looking to offer takeaway food services.
- The location of the business must be updated on google maps.

### **Functional Requirements:**

- The portal must allow the user to post tasks and bid on services of delivery personnel.
- The portal must update task status in real time.
- The portal must provide updates on delivery status.
- The portal must allow the user to track their delivery status.
- The portal must have a real time chat feature to allow seamless communication.
- The portal must keep track of delivery history and driver profiles.
- The portal must have integration with third party delivery solutions.

### **Usability Requirements:**

- The portal must be easy to use and intuitive.
- The posting of tasks must be efficient and provide required details.
- The portal should allow seamless integration with maps to track the location.
- The portal should have a convenient and adaptable base model for tasks.

## **Literature Review**

### **Why Uber Eats Will Eat You Into Bankruptcy**

“UberEats charges a restaurant 30% of their listed prices for the privilege of delivering their food. For example, Bob’s Deli charges \$10 for a burger. Uber Eats would take \$3 dollars as a fee for delivering their food. Also, Uber Eats does not permit restaurants to increase their prices to “cover” Uber’s cost. Thus, Uber is telling restaurants that they must eat the cost and lose money or we won’t deliver for you.”

<https://www.forbes.com/sites/cameronkeng/2018/03/26/why-uber-eats-will-eat-you-into-bankruptcy>

### **Vromo**

While examining the feasibility of our idea, we came across Vromo. Vromo is a food & restaurant delivery management platform that focuses on optimizing delivery operations. They have implemented third party delivery vendors which is a feature we also want to integrate into our platform.

<https://vromo.io/wp-content/uploads/2021/10/PapaGino-DoorDash-VROMO-Case-Study-2.pdf>

## **Development Options**

**Web Application** - We aim to use responsive and intuitive design as we believe it increases the efficiency of our portal by focusing on accessibility, being able to use it irrespective of the screen size.

**MERN Stack** - We will use the MERN Stack (MongoDB, ExpressJS, React, NodeJS) as it is what we are keen to learn. Integrating a real time chat feature with google maps live location tracking are also some features we are earnestly looking forward to implementing.

### **Innovative Bid Feature**

We plan to incorporate a bidding feature as a key part of our solution, removing the need for cumbersome payroll management and giving the restaurant owners the right to put out bids as per their needs.

### **Further Considerations**

- Google maps integration  
Using Google's own API and integrating it in our portal is something we are testing out, learning through tutorials and the existing literature from google is something we are focused on at present.
- Third party delivery solutions integration  
Currently we are limited by our scope and funding concerns with integrating third party vendors in our solution, we are adopting a dummy functionality that shows a mock up of how this feature would actually work. We are looking into Vromo, a similar app that uses third party integrations, but the monetary concern is what's holding us back from implementing this.

## **Individual Contribution**

**Aakash Jain** - Abstract, Conceptual Model

**Vedant Maheshwari** - Key Scenarios, Key Requirements

**Mayur Mule** - Literature Review, Development Options