Guestmeal.me: eBay for Guest Meals

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Abstract

As a freshmen in college, many students are strapped for cash and many struggle to make friends at first. At most colleges, including Boston University, students living in dormitories are required to obtain a dining plan which, among many benefits, provides ten guest meals per semester. These are not transferable from one semester to another and will go to waste if unused. Our goal is build an application that will allow students to optimally utilize their extra meals or find low cost meals on campus that will leave them satisfied. To extend it even further, our future goal is to match students such that they can share this meal together and possibly make a new friend.

Market Analysis

Peer-to-peer food service companies currently exist for people to share their home cooked meals with complete strangers. VizEat, EatWith, Mealsharing, Feastly, and Traveling Spoon are a few examples. Our goal is to build a similar peer-to-peer business in food services targeted at the BU community.

In the past, there was a petition for students to convert unused guest meals into dining points (university currency) and nearly one hundred and fifty students signed this petition. This along with our personal experience as college students gave us reason and interest to pursue this project.

Use Cases

Dash & Dine

Guest meal providers post guest meal for sale and students can bid on it. Since we are using Dutch auctions (descending price), once a bid is placed, the guest meal is won. The winner will email the provider to set up a time to meet up to be swiped into the dining hall. The provider is not expected to seat and eat their meal with the consumer.

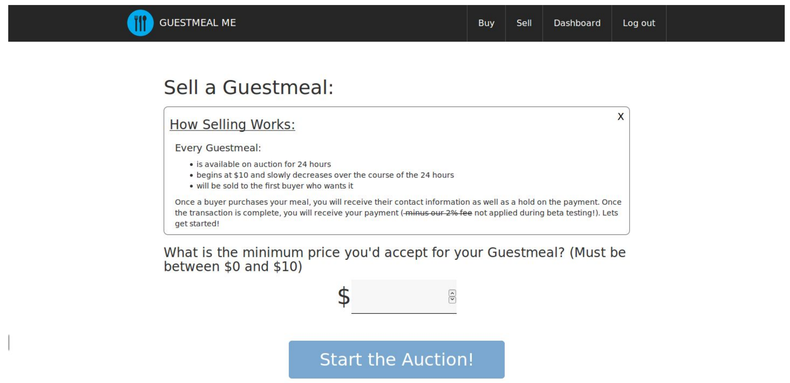
Personality Matching

Providers and consumers will arrange a time to eat together. This adds more value to the meal, in the form of friendship and comradery. We will use a modified blind second-price auction in this format, as we would want to be able to run multiple auctions at the same time and factor in bidders personality into algorithm that determines which bidder win.

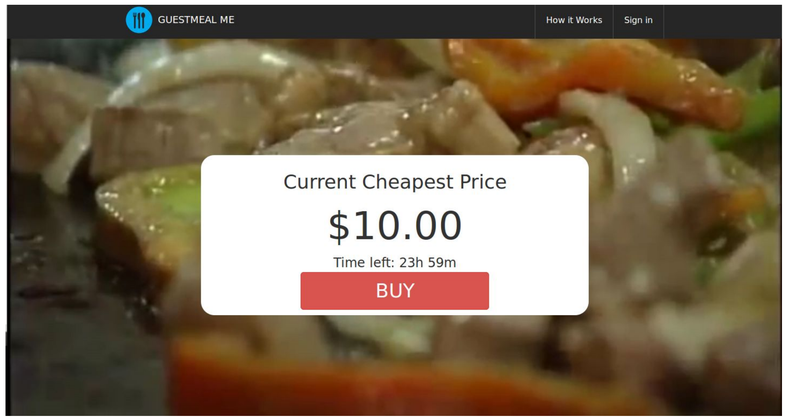
Auctioning Methods

Our application utilizes a Dutch(descending price) auction to sell guest meals. In a Dutch auction, items are introduced at a starting price and the price drops at set time intervals. The first person to bid will win and pay the current price. We start meals at $10 and drop the price linearly such that it will be priced at the seller's minimum at the end of a day. Extensions for personality matching will use a blind second price auction. In this auction, participants submit bids without knowing what others submit. The bidder with the highest bid will win, but will pay the price of the second highest bidder.

First Prototype



Selling a meal. This is the interface that allows you to sell and meal, simply by entering the minimum price you are willing to sell the guest meal for



Buying a meal. The price is always decreasing, but once you press buy you can lock in the price and make it yours.

Survey Results

We conducted a survey of Boston University students to determine how viable an app like ours would be. Over 80% of respondents said they would be interested in selling guest meals and 90% of respondents say they would be interested in registering for an app like *guestmeal.me*, as depicted in Figure 1. A majority of respondents who were not interested in selling guest meals were students who didn't have guest meals leftover, as depicted in Figure 2. When asked how much a student would sell their meal for and whether they'd pay that same price, we found that the optimal valuation of a guest meal was $7.80 on average. From Figure 3, we can see that a majority of students valued a meal in the range of $4-10 and would be willing to purchase it at that price.

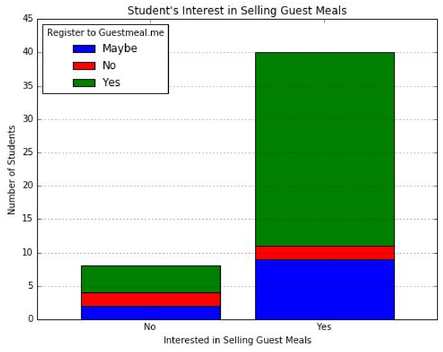


Figure 1. Interest in selling

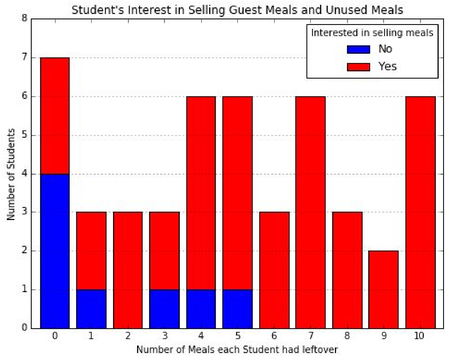


Figure 2. Meals potentially available

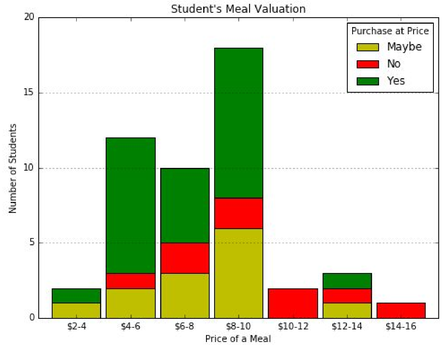
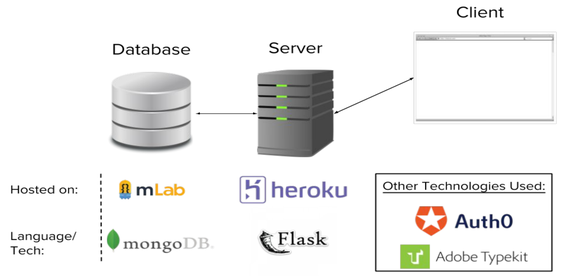


Figure 3. Expected pricing

Software Architecture



Acknowledgements

Special thanks to Professor Byers for his guidance and the struggling college students for inspiration