

Stock Restaurant Initial Project Description

Team 1

Kate Strombom – kstrombom@ku.edu

Jack Stevens – jackstevens@ku.edu

Denis Sehic – denissehic21@gmail.com

Hanwen Cao – hanwencao@ku.edu

Project Description

The premise of our project is to treat restaurant and bar related items as stock in a mini-restaurant stock market. This means that the pricing of each item is dynamic and will increase or decrease based on the amount of stock being purchased of items in the “market”. This idea has two underlying opportunities. The first is to capitalize on the novelty of the idea in the United States market by attracting patrons to the restaurant or bar utilizing this software. We believe that the new format of purchasing items will become popular for its novelty and game-like purchasing. We also will capitalize on an opportunity to improve a restaurant or bars sale of stock. By having the pricing be dynamic, restaurants can begin to sell more items that would normally not get sold often. They can also heavily capitalize on the popular drinks and meals sold.

Our project will be a locally hosted web application. The backend will consist of the algorithm, which will take multiple input criteria to build a customer designed model for pricing. Based on sales made in a POS system, the algorithm will perform calculations in real time and present the pricing changes on the customer friendly page. The frontend will consist of a clean user interface for presenting the items being sold. This page will be where the restaurant owner can create their pricing model. The second aspect of the frontend will be a customizable for the restaurant customer related screen to show the price fluctuation.

Project Milestones

MILESTONE	DATE TO BE COMPLETED
DIAGRAMS – WIREFRAME, USE-CASE, OBJECT, ETC.	November 1, 2017
ALGORITHM DESIGN	
INITIAL PROJECT SET UP	December 1, 2017
ALGORITHM IMPLEMENTATION	February 1, 2018
RESTAURANT OWNER FRONTEND DESIGN	February 15, 2018
CUSTOMER FRONTEND DESIGN	March 15, 2018
TESTING AND TWEAKING	April 15, 2018

Project Budget

We intend to utilize open source software and languages for the creation of this project so that the cost involved will only be labor related. The below are the backend, front-end, and database technologies we have chosen to work with so far. They are all free but will require time to become accustomed to because they are mostly new technologies. We do not foresee Node.js and PostgreSQL requiring much learning time though based on prior experiences. All these technologies will be required as soon as the design milestone has been finished.

- Trello
- Github
- Node.js
- Socket.io
- PostgreSQL
- Express.js

Much later, near April 2018, depending on our progress, we may want to deploy the project from our localhost to a server that would likely be utilized in the restaurant to test in a more realistic environment. We intend to find a free or cheap server to test with if this is the case. I believe KU currently offers free servers to students to test with.

Work Plan

Tasks	Strombom	Cao	Stevens	Sehic
Designs and Diagrams	X	X	X	X
Initial project set up	X	X	X	X
Database	X		X	
Algorithm			X	X
Algorithm testing	X	X		
Backend			X	X
Frontend	X	X		
Final testing and tweaking	X	X	X	X

GitHub

<https://github.com/kstrombom/stock-restaurant>