AP Project Charter

Cups System

“Serving the blind one cup at a time”

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Introduction

This project charter is meant to outline the details of the “cups” system being developed for Coffee shop operators. This document will outline **major requirements**, **deliverables**, **tools that will be used**, **the team members and their roles**. It will also include a prototype wireframe and ERD design that will be used in the implementation of the system.

Business Case

Cups is a local coffee shop that provides a relaxing getaway in the middle of the city for the disabled community. They are also a wonderful example of a Social Enterprise Boost Initiative. Kat, the manager, has been encouraged by her mentor to establish another store at 95 Moolean Avenue in the heart of Montego Bay. Kat would like to encourage an empowering environment through self-service. Our team providing is being asked to incorporate Artificial Intelligence through Computer Vision and Speech Processing to accomplish this. The touch-screen self-service kiosk will allow customers to order their favorite treats using digital verification.

Major Requirements

These are the major features and functions that the program should be able to perform once it is complete.

Store Manager should be able to:

- Log in using administrative credentials
- View a list of all menu items
- Perform crud operations on all listed menu items
- View analytics for purchased items

Able-Bodied Customers should be able to:

- Register for the system and have their relevant data stored for verification
- Upon sign up receive a customary $500 added to their account balance
- View and select from a list of menu items through speech or search
- View their cart’s contents and add/remove items as they please.
- Confirm and receive their order along with a receipt

Blind Customers should be able to:

- Register for the system using speech recognition
- Upon sign up receive a customary $500 added to their account balance
- Select from a list of menu items through speech
- Listen to their cart's content and add/remove as they please
- Confirm their order through speech and receive their order along with a receipt

Deliverables/Success Criteria

These are the major deliverables that the project should produce upon completion. The delivery of each individual item marks itself as a success criterion.

- Requirements Document
- Wireframe
- Entity Relationship Diagram
- Source Code
- Working Website

What will not be delivered?

With current skill levels and resources, it would likely be too difficult to account for persons who suffer from multiple disabilities that go further than blindness. Also, note that deaf persons will be treated similarly to able-bodied individuals since the system is mostly visual-based.

Members

The project team is small and consists of 3 members. They are:

- Akeem Allen
- Roxanne Meeks
- Richard Robinson

This project will be headed by Akeem Allen due to his current experience with the software. He will also likely be working on the implementation of speech processing and voice recognition.

Roxanne Meeks will be performing frontend operations in order to ensure the design and implementation of a user-friendly and visually pleasing interface.
Richard Robinson will be performing backend work along with Akeem in order to ensure the delivery of speech processing, voice recognition and overall CRUD operations for the API.

Technology Stack

Development

This project will be using the popular MERN stack (MongoDb, Express, ReactJs, and NodeJs) in order to deliver a working application.

- MongoDB will act as the database for this application. It is a popular document-based NoSQL database.
- Express is a popular back-end stack that is mainly used with javascript based web application.
- ReactJs is a popular front-end library that will facilitate the creation of many, if not all, of the visual components for this project.
- NodeJs is a tool used to run javascript on other platforms outside of the browser. For example, on a server. It will be used to build and run our own application.

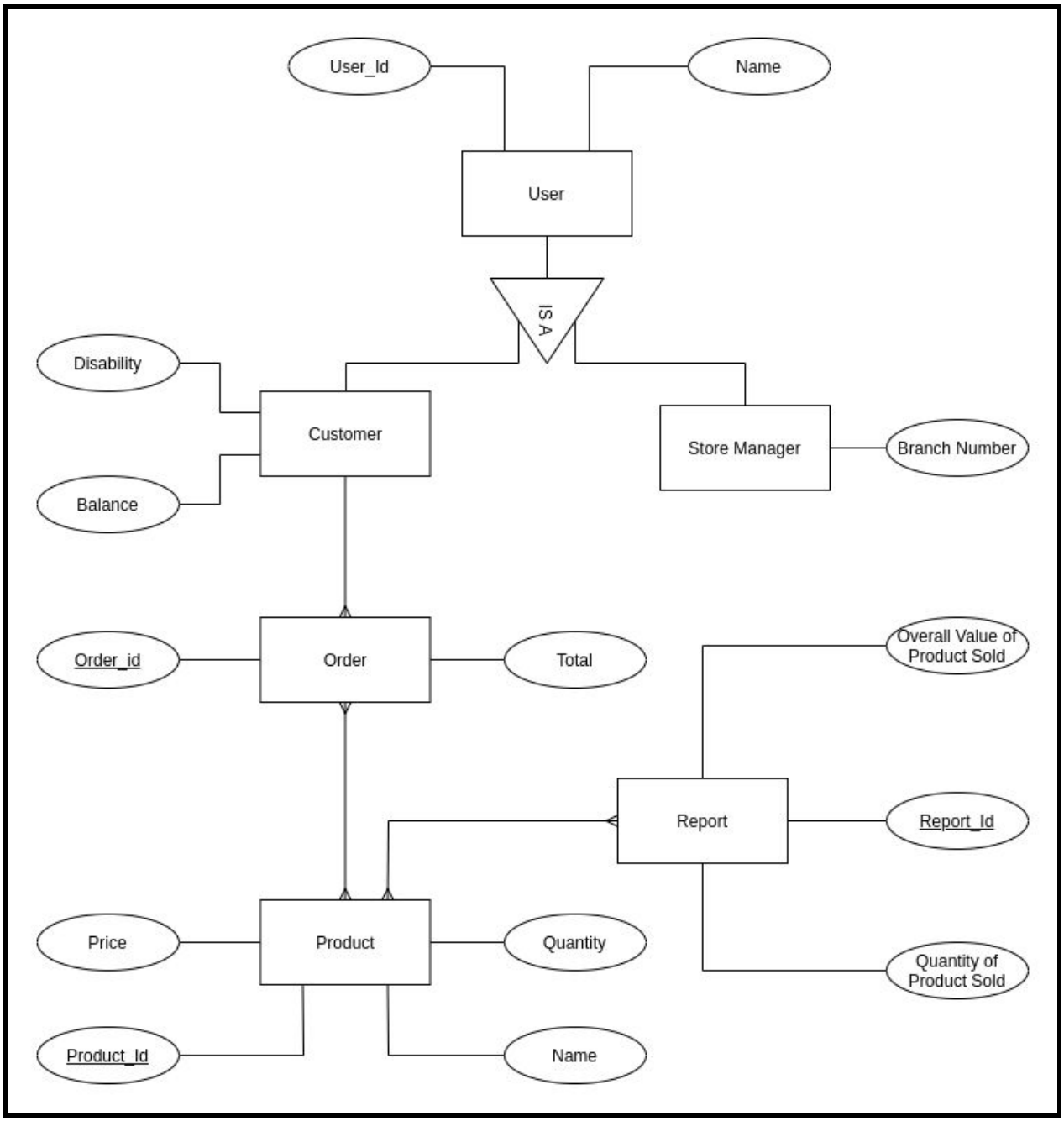
It is currently unclear what tools can and will be used for speech recognition. However, it will likely involve either npm packages, a package manager for NodeJs, or a machine learning solution involving tensor flow.

Deployment

The project will be deployed to an online URL using Netlify. It is a popular hosting service for javascript based frameworks. It will help manage things such as server issues, server setup, and deployment and other fringe issues.

Entity Relationship Diagram (ERD)

The following image shows the ERD that will be used to design and construct the layout of the database. Please note that it is subject to change as we begin working on the system and implementing these designs and features.



WireFrames

The following is a link to the pdf document containing the wireframes for a prototype version of the site's design.
Note that it was too long to place within this document, hence the link.

WireFrame Pdf