



Dining Hall Management System

Project Overview

Our project is a transition from the card based system to an online app based system. The system will help the mess employees to better manage the entire system everything from managing orders, useful insights about patterns in orders, predict expected number of meals per day to reduce food wastage and more.

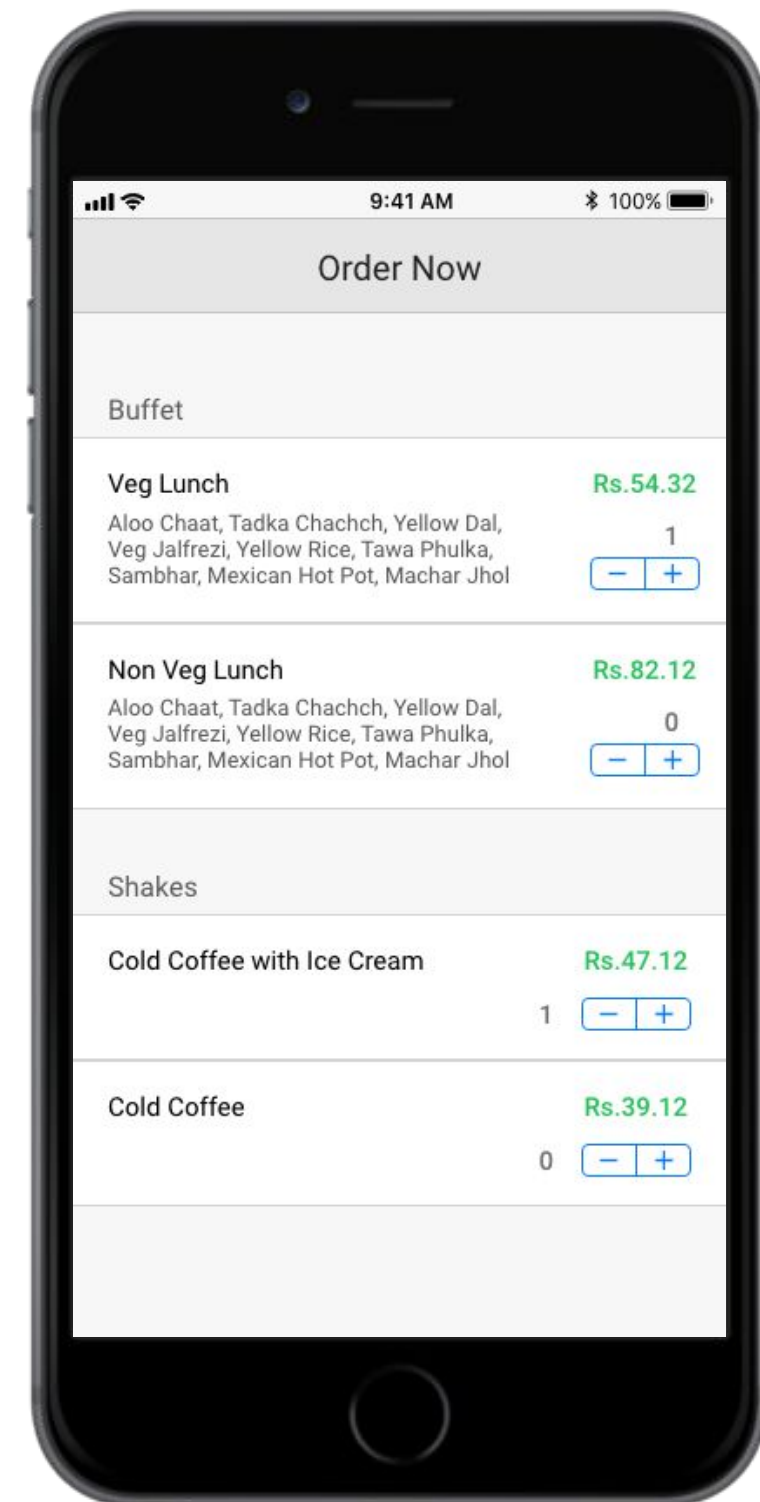
The app based system removes the long queues at DH for getting the food receipts, which just takes up space. With live notifications of your orders, it helps improve space management within the DH. Feedbacks are prioritised to improve services in the future.



Application Walkthrough

Order from anywhere

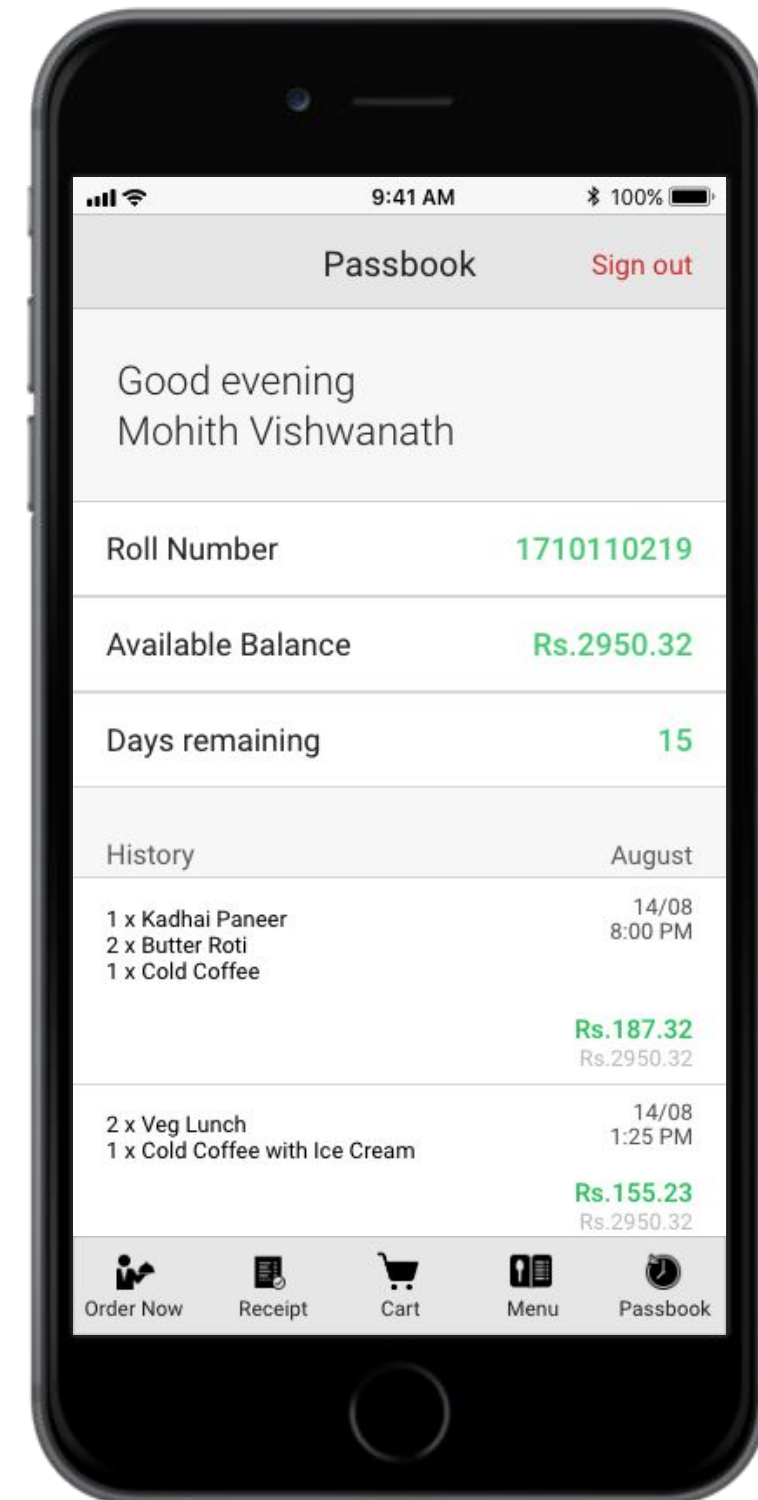
Our solutions provides a very easy and friendly interface for ordering dishes from the dining hall. You can place your order from anywhere - just add to your cart and confirm. This eliminates the use of plastic cards, which are harmful to the environment and also reduces the long lines at the counters



Screenshot of actual software

Better insights

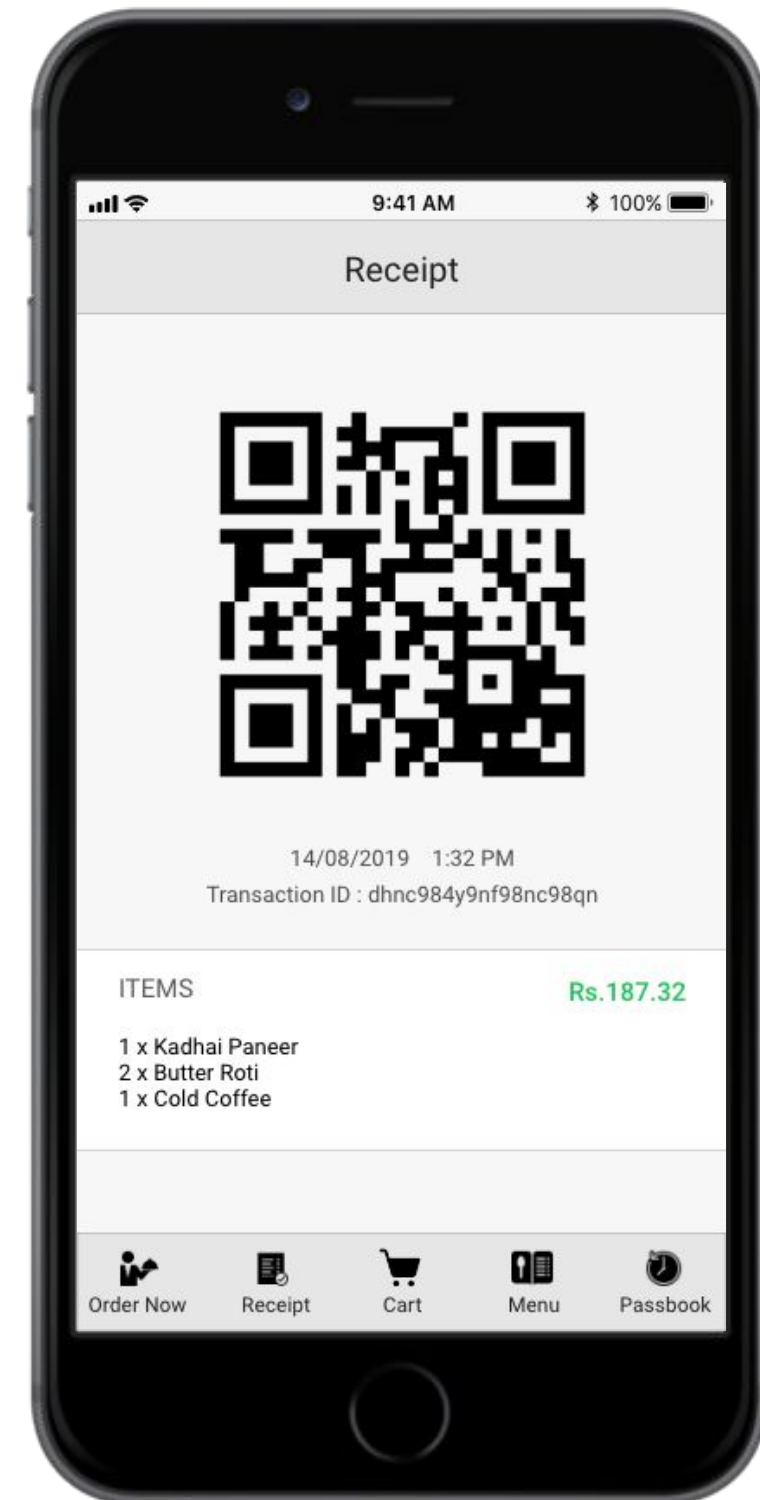
Your roll number is your card number! You can view the balance, transaction history and much more from the passbook section of the app. This gives the users more information about their spendings and is accessible from anywhere.



Screenshot of actual software

Say goodbye to paper!

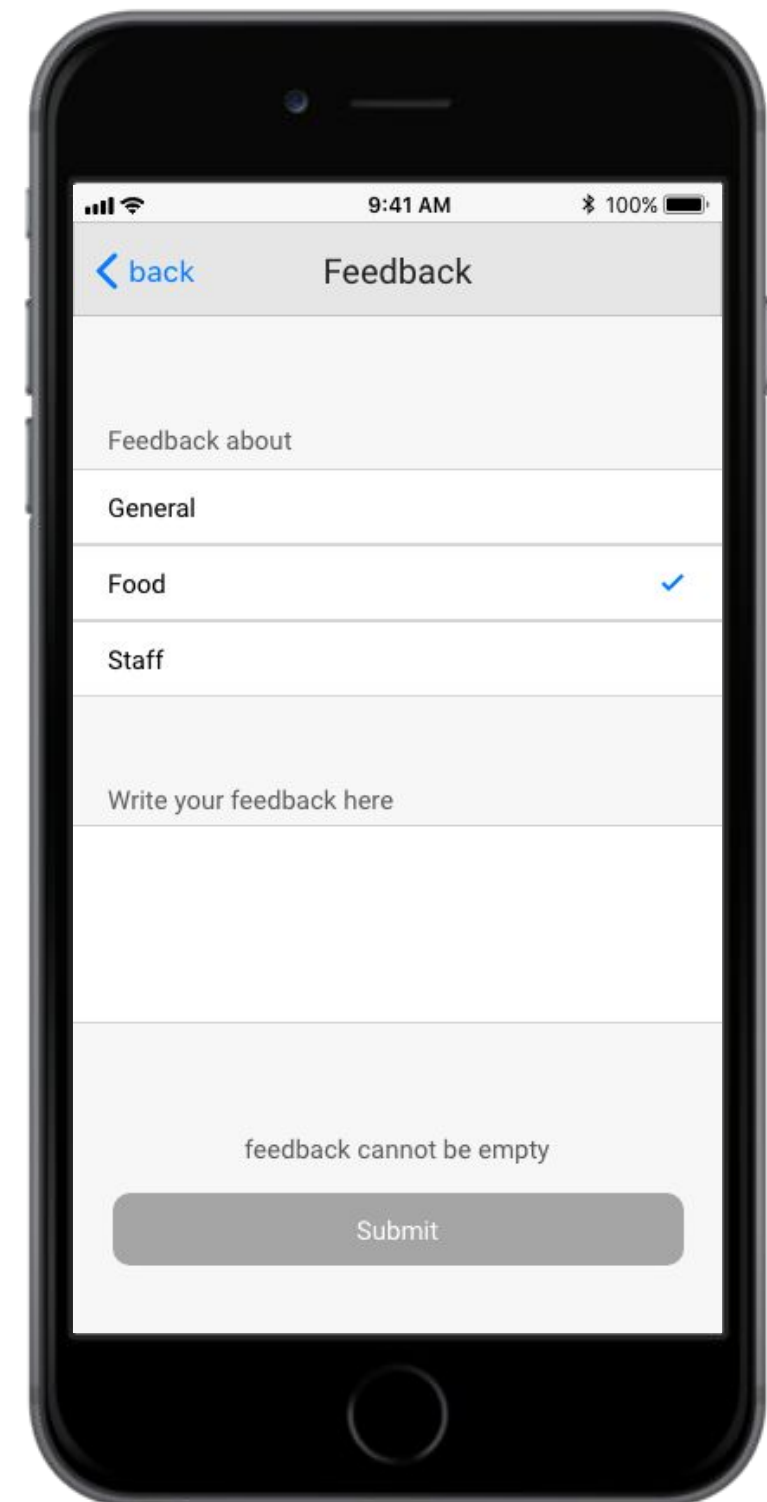
2000+ paper slips are wasted everyday at just one dining hall. These paper slips are just proof of purchase and are thrown away which is a clear example of paper wastage. With our software solutions, we introduce QR codes which shall be scanned at the counter to confirm the purchase completely eliminating the usage of paper in any manner.



Screenshot of actual software

Better feedbacks

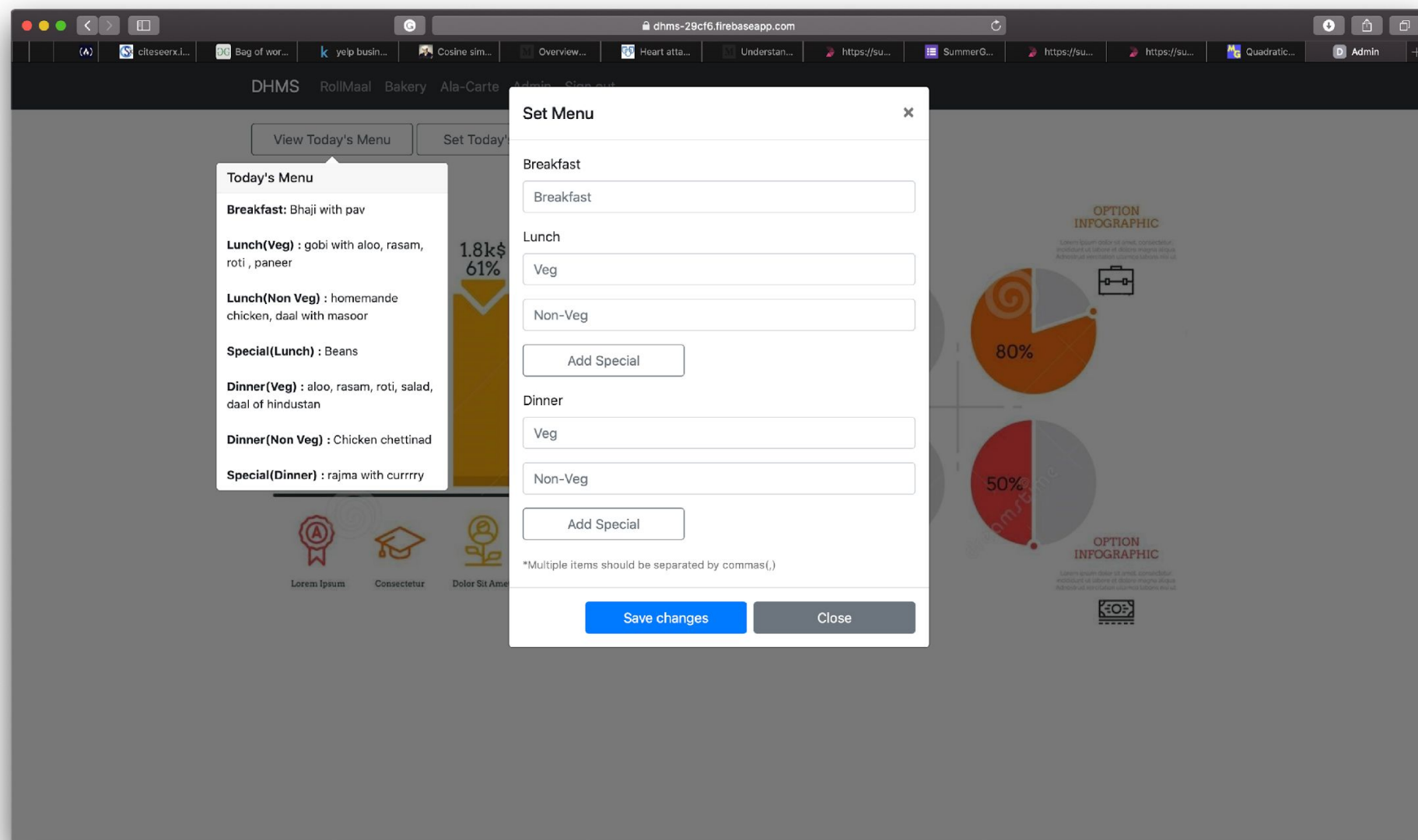
The feedbacks written in the book goes unnoticed. With the app, every feedback will reach the concerned person so that necessary actions can be taken at the earliest. Using NLP (Natural Language Processing) we can classify the feedbacks and prioritise them so that the ones the require urgent attention are dealt with first.



Screenshot of actual software

Setting Menu

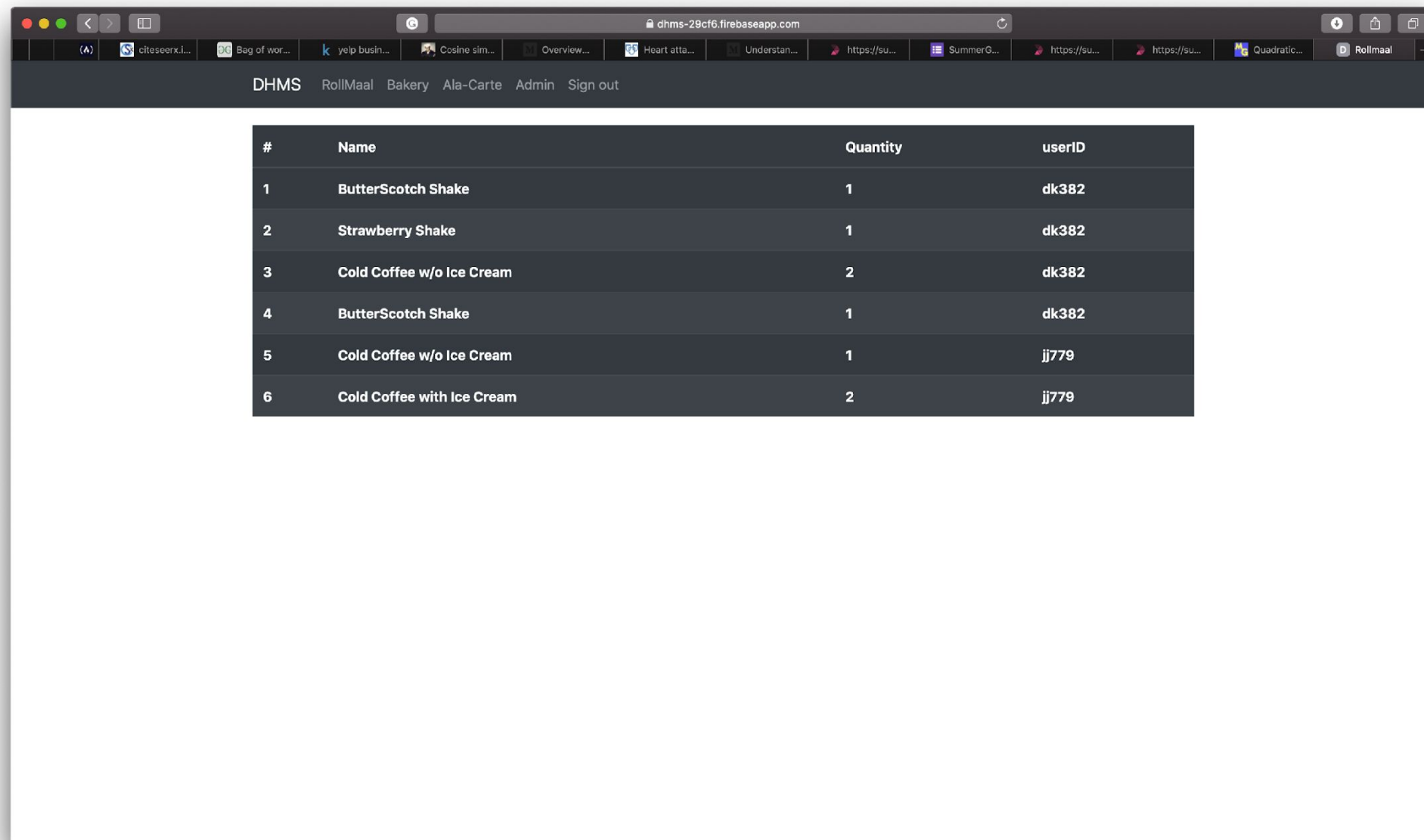
The Web is the one place with all controls for the vendors. Setting Menu is just one aspect. They can change/delete/add dishes as and when they are decided with just a click of a button. Among the employees, only a few are given access to such controls



Screenshot of the actual final software

Managing orders

The web app gives the vendors/managers a powerful way to walkthrough all the placed orders. They can filter/sort the data as they wish. The software sorts the dishes according to the time required to prepare them thus making sure that the dishes are prepared at the earliest possible time.



The screenshot shows a web browser window with the address bar displaying 'dhms-29cf6.firebaseio.com'. The browser's tab bar includes several tabs, with 'Rollmaal' being the active one. The web application's header features the text 'DHMS' followed by navigation links: 'RollMaal', 'Bakery', 'Ala-Carte', 'Admin', and 'Sign out'. The main content area displays a table with the following data:

#	Name	Quantity	userID
1	ButterScotch Shake	1	dk382
2	Strawberry Shake	1	dk382
3	Cold Coffee w/o Ice Cream	2	dk382
4	ButterScotch Shake	1	dk382
5	Cold Coffee w/o Ice Cream	1	jj779
6	Cold Coffee with Ice Cream	2	jj779

Just the basic working prototype for demo purpose

Data Insights (beta)

The main USP of this software is its data analytics capability which helps in reducing the food wastage by predicting the expected quantity everyday. This is done by the machine learning module that uses the past data and considers various factors like upcoming events, number of students on campus, day of the week, how much the dish to be prepared is liked by the people and more to give an accurate prediction everyday. Its almost magical!

Just the basic prototype for demo purpose. The graphs are not connected to any ML model in the shown figure. For representative purpose only.



Better control for vendors

With spontaneous feedbacks, live orders feed and better insights of the day and more, the web app is an all in one solution for the vendors

Safe and Secure

The backend of the software will be structured in a way that is safe and secure for these transactions.

Eco-Friendly

This software solutions eliminates the use of paper slips and plastic cards. It also helps in reducing food wastage

Available on all platforms

The app will be available on iOS and Android. Apart from that, the web app will be available for vendors

Live status

With live status of your order, you'll know exactly when your order is ready with instant notifications

Increases productive

With the reduction of waiting in long queues, the same time can be used productively by the students. Also, no staff required at the counters for ordering