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Food Alert

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Problem

- It is estimated 30-40% of the food supply is wasted in the US^[1]
- Due to population growth, it is projected there will be a 214 trillion calorie deficit in 2027^[2]



[1] <https://www.usda.gov/foodwaste/faqs>

[2] <https://gro-intelligence.com/>

Objective

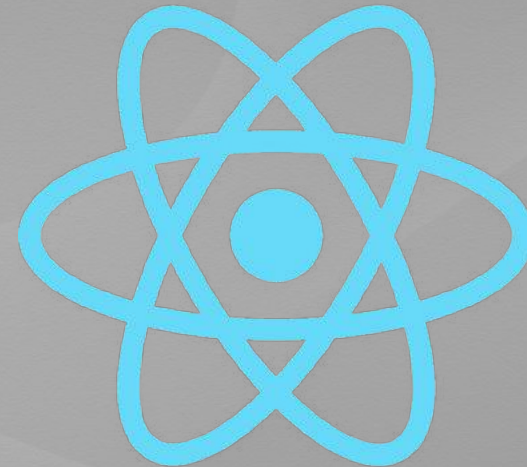
- Give consumers an easy to use tool that can help reduce their food waste.
- Create a cross platform app to enable a user to keep track of their food inventory and track expiration dates.



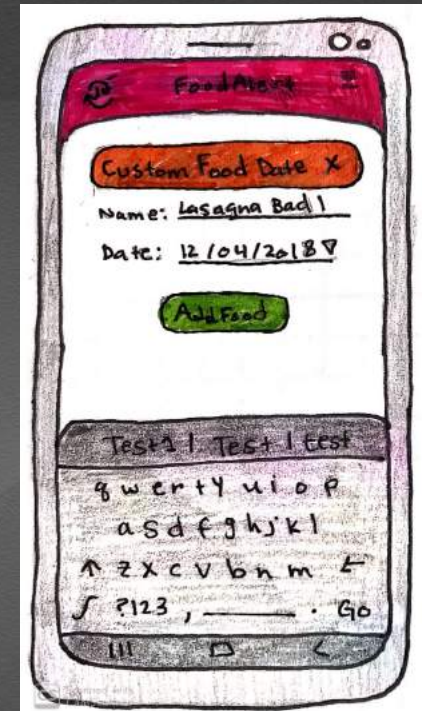
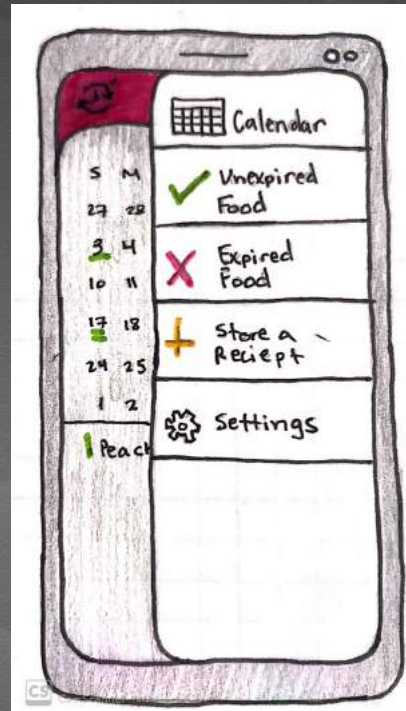
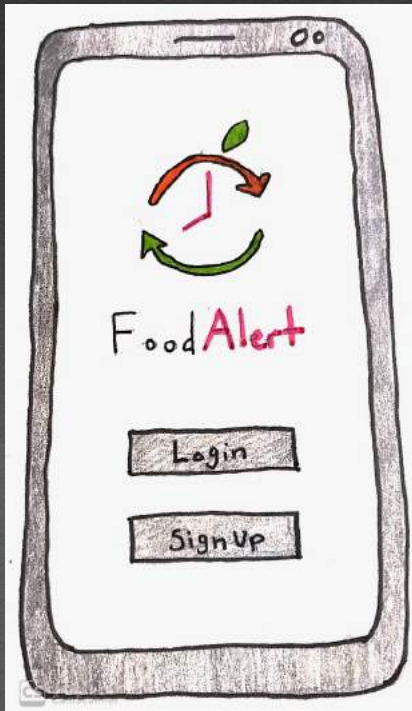
Technology



Firebase



React Native



Design Phase

UI Mock-ups of the original designs.

Database

A screenshot of a database management interface. The top navigation bar shows the database name "foodalert-a4fb5" and the current collection "Expiration_Times". Below this, there is a list of documents in the "Expiration_Times" collection. The first document is selected, showing its ID "026Xkhuc177ZjPJbsHX3" and its fields: "expiration_days": "13" and "fde_id": "325560".


Document ID	expiration_days	fde_id
00faowh9qrNXJ9YFbEvk		
026Xkhuc177ZjPJbsHX3	13	325560
049nm83qDeKFAUFYL53a		
040Q2FVqHyHNuoLkqPEJ		
04v8f30Ka1IFWTdxs1f0		
056HS9AgNr1MLn0RmgWc		
08F2S9SIU2JCchJUD0Cx		
09HTFEneg9L1d8dqCvcI		
0CEDK58KHdafDLJjZKou		
0HNKXOaWeWu2B1Rdgm5		
0IfaT3C9jnsN1BeauJkj		
0J2Jsx68V146KNteSfAz		
0JFVEDvz6X2dpxkZyfQd		
0K2YY5Jf1z11vUWSPyFS		

A screenshot of a database management interface showing a collection of users. The URL at the top is "https://foodalert-a4fb5.firebaseio.com/". The collection is named "Users". The first user is expanded, showing fields: "email": "Testing25@whocares.net", "firstname": "Harrison", "lastname": "Jasper", and "uid": "90Q4QTVNXtWuypv8Lzdmfoe124U2". Below this, a list of other user IDs is shown. The second user is expanded, showing a "date" field with a value of "2020-04-20". This date is further expanded to show a "foodItem": "apple" and "foodStatus": "expired".

```
Users
├── -M2F9a537lh_25_7Y2AQ
│   ├── email: "Testing25@whocares.net"
│   ├── firstname: "Harrison"
│   ├── lastname: "Jasper"
│   └── uid: "90Q4QTVNXtWuypv8Lzdmfoe124U2"
├── -0sXe37FMGVMWVKVTLLOZF83kdfsq2
├── -2z2gtQGLsuaNLJfFkOH4oWGFdmj1
├── -8RE61IBZpYtkpUdqEkZSy4sJ15T2
├── -EDnrxZ0fHFRssWh0gcDdZUIIdx83
├── -FWdK97db9Vhit1DhzrF001xSPM02
├── -LzQjShRsJ4TxPGpbtkosMolsFHU2
├── -QNRqrQaKK4MHcU0pb7KvWlk0Mh1
├── -Rn4UtFNTujdLo19wJ3Y9ETkwPH2
├── -SjGmGuLXzadw9nkd2wsFTaLvUhu1
│   └── date
│       ├── -2020-04-20
│       │   └── -M58VdsxmDWEhTo2ysat
│       │       ├── foodItem: "apple"
│       │       └── foodStatus: "expired"
│       └── undefined
│   ├── email: "Cap@two.com"
│   ├── firstname: "Capstone"
│   ├── lastname: "Two"
│   └── uid: "SjGmGuLXzadw9nkd2wsFTaLvUhu1"
└── -VvwM6KdwqTllxp3N0Vo0PPy5sg2
```




 Login Page

 Calendar Page

 Camera Page

 List Page

 Profile Page

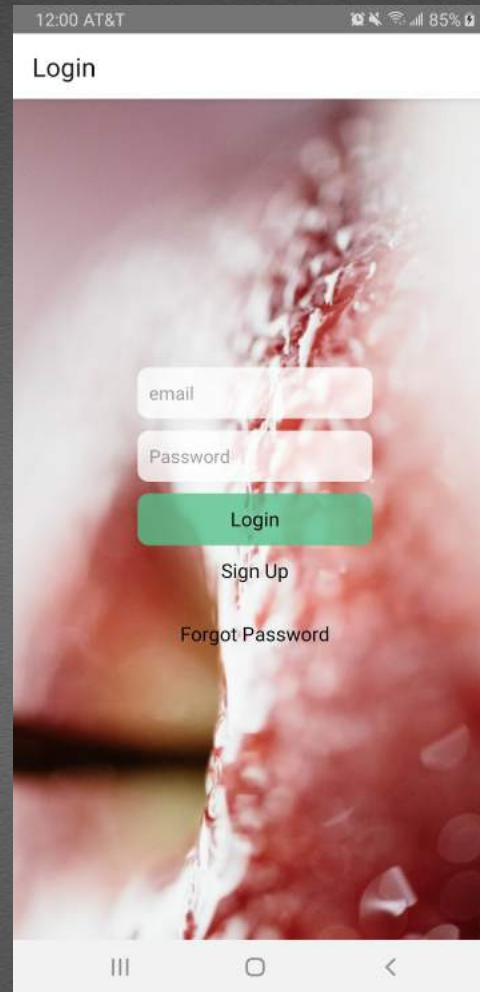
App Organization

React-Native divides app construction into pages.

Login Page

Authenticates existing users.

Allows the registration of new users.



12:00 AT&T 85%

Login

email

Password

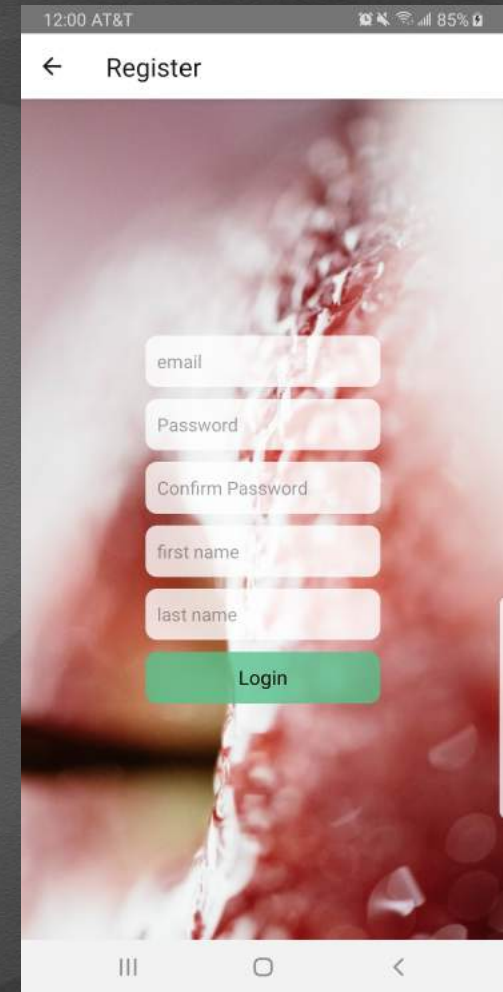
Login

Sign Up

Forgot Password

III O <

The image shows a mobile application interface for a login page. At the top, the status bar displays the time as 12:00, the carrier as AT&T, and the battery level at 85%. Below the status bar, the title "Login" is centered. The main content area features a blurred background of water droplets. There are two white input fields: "email" and "Password". Below these is a prominent green "Login" button. Underneath the button are two links: "Sign Up" and "Forgot Password". At the bottom of the screen is a white navigation bar with three icons: a hamburger menu, a home button, and a back arrow.



12:00 AT&T 85%

Register

email

Password

Confirm Password

first name

last name

Login

III O <

The image shows a mobile application interface for a register page. At the top, the status bar displays the time as 12:00, the carrier as AT&T, and the battery level at 85%. Below the status bar, the title "Register" is centered with a back arrow to its left. The main content area features a blurred background of water droplets. There are five white input fields: "email", "Password", "Confirm Password", "first name", and "last name". Below these is a prominent green "Login" button. At the bottom of the screen is a white navigation bar with three icons: a hamburger menu, a home button, and a back arrow.

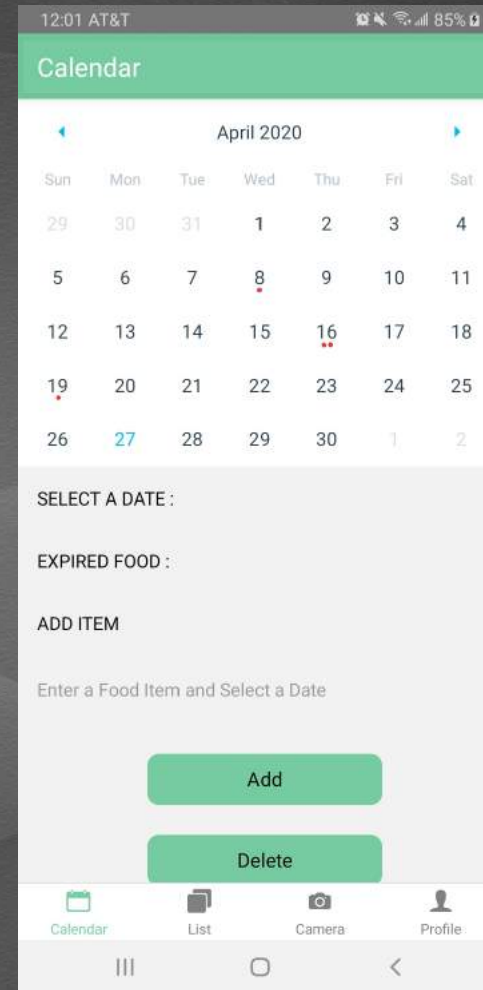
Calendar Page

Allow users to view all items for a particular day.

Allows users to manually add an item.

Allows users to delete all items on a day.

Pulls user's food data from Firebase.

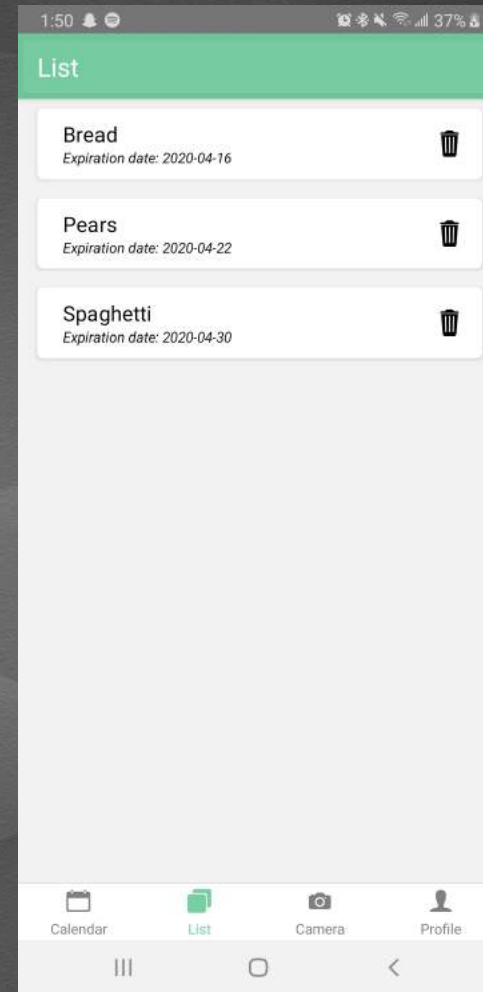


List Page

Pulls a user's food data from Firebase.

Allows users to view all food items.

Allows users to delete individual items.



Camera Page

Allows users to scan a receipt.

Using text recognition the receipt information is parsed.

The information is used to create a new item and calculate the expiration date.

The new item is pushed to Firebase.



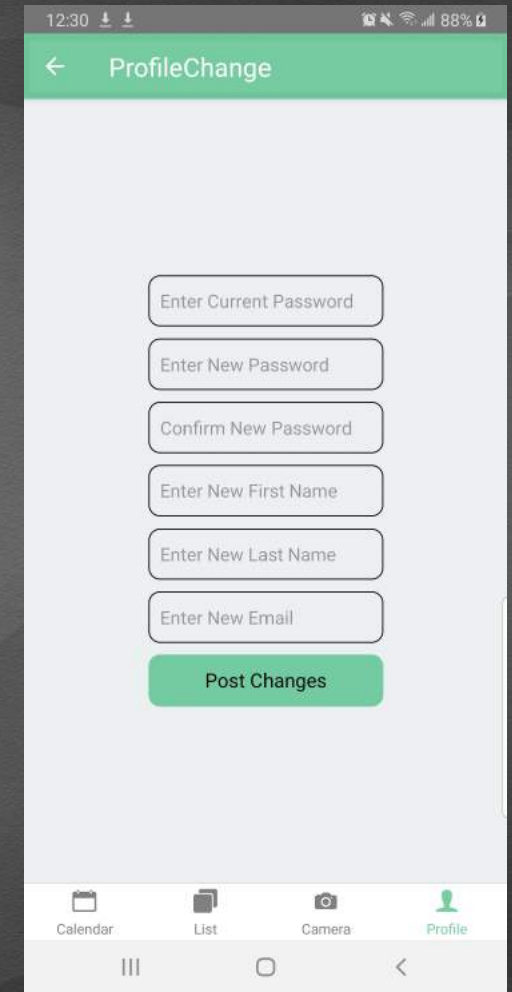
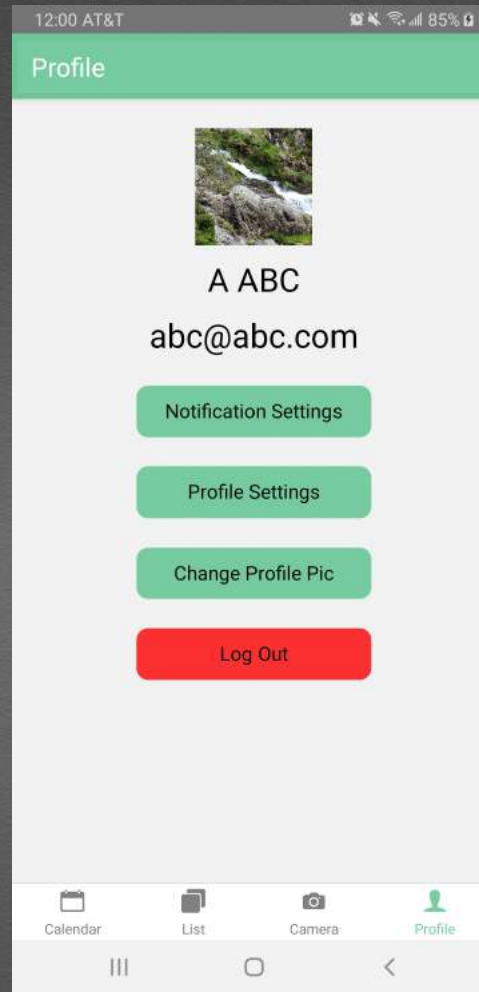
Profile Page

The user can view their settings.

Log out of the current account.

Lets the user change the name, email, and password associated with an account.

Allows the user to choose a profile picture.



Deliverables

- Design Flow-Charts, Diagrams and UI drawings
- Database scheme
- React Native code
- Final Report

