Cut The Crap

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Team Site:
https://sddec21-12.sd.ece.iastate.edu

Project Identifier: sddec21-12
Project Name: Make Recipes Readable Again

The Team

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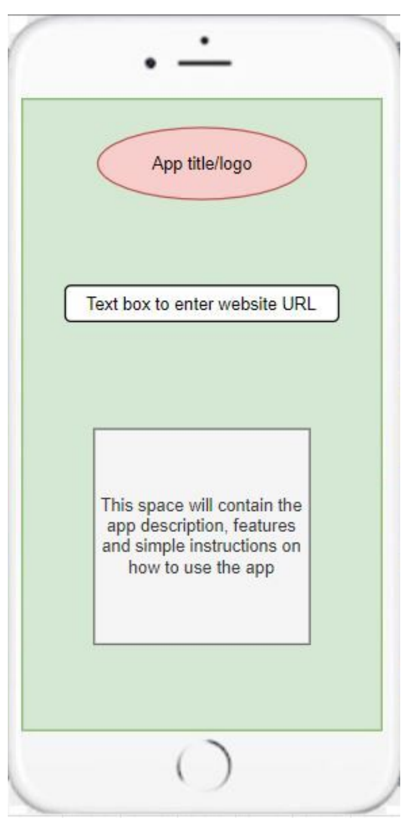
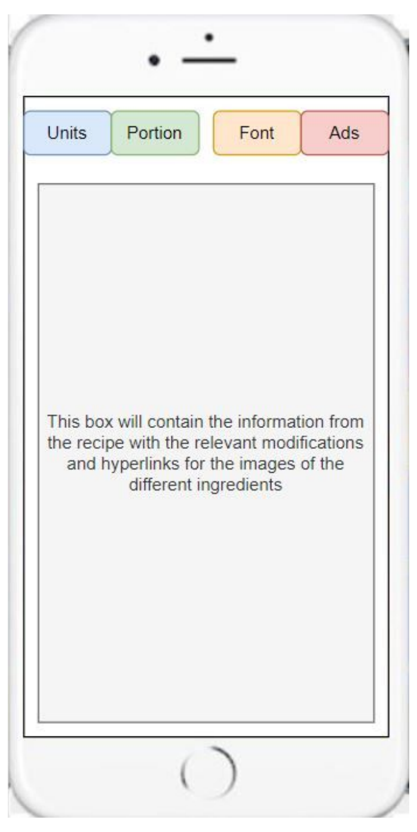
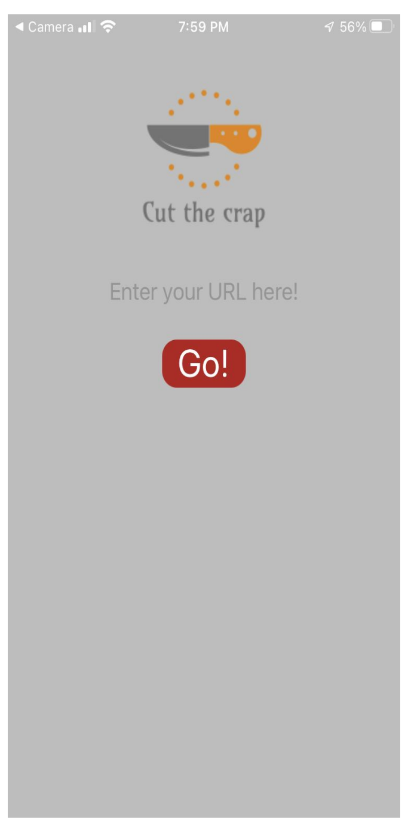
Problem, Solution & Users

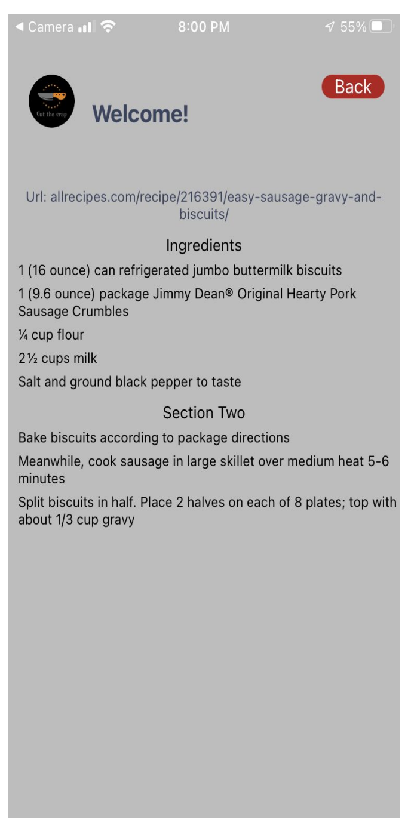
- Problem is online recipe blogs are confusing and difficult to navigate
- We decided to make a mobile app, using a web scraper, to reorganize site and make the recipe more concise
- Hope this makes cooking more enjoyable and draws more to cook
- Anyone wanting to cook with simple instructions from a blog recipe

Concept, Design & Block Diagram Sketches


App title/logo
Text box to enter website URL
This space will contain the app description, features and simple instructions on how to use the app


Units
Portion
Font
Ads
This box will contain the information from the recipe with the relevant modifications and hyperlinks for the images of the different ingredients





Welcome!

Url: allrecipes.com/recipe/216391/easy-sausage-gravy-and-biscuits/

Ingredients

1 (16 ounce) can refrigerated jumbo buttermilk biscuits

1 (9.6 ounce) package Jimmy Dean® Original Hearty Pork Sausage Crumbles

¼ cup flour

2½ cups milk

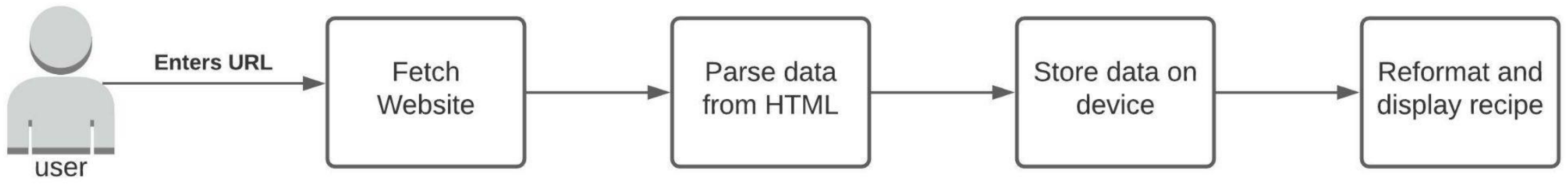
Salt and ground black pepper to taste

Section Two

Bake biscuits according to package directions

Meanwhile, cook sausage in large skillet over medium heat 5-6 minutes

Split biscuits in half. Place 2 halves on each of 8 plates; top with about 1/3 cup gravy



Design Approach

- The main functional modules are the Web Scraper, JSON storage, and Frontend UI
- The Web Scraper saves data to the JSON storage and the Frontend accesses that data to display
- The Frontend also sends the URL to the web scraper
- Flaws in testing are a concern
  - Solved by targeted testing on major sites
- Unusable UI is a concern
  - Design with visually impaired in mind
- Cyber Security is a concern
  - Run URL through checking tool

Technical Details

- Web Scraper done in JavaScript using fetch. It is limited on the number of sites and expansion is a concern.
- JSON Storage done in JavaScript, used expo-file-system library, no known limits or concerns for the project.
- Frontend UI done using React Native in Expo CLI. It is Limited on user preferences with no known concerns.

Functional Requirements

- Capable of loading a recipe from an arbitrary URL
- Make recipe more readable by cutting off extraneous information
- Add measurements to instructions
- Ability to scale recipe
- Converting units between metric and imperial

Non-Functional Requirements

- Work on mobile device
- May be platform-specific
- Interface must be user-friendly
- Recipes should load within 5s
- Maintain the source's revenue stream
- Should not require a user account
- Should not require database

Engineering Constraints

- Internet connection needed
- A new instance of the app will be loaded at each use
- The end product will only work on mobile devices
- The app will only work on english websites

Operational Environment

- Places with internet connection
- Used in kitchen so low contact and high ease of use

Relevant Standards

- Agile development standards
- JavaScript coding standards

Testing

- Unit Testing done is Jest
- Interface Testing using IOS/Android Emulators and React Native CLI Quickstart
- Acceptance Testing through presentations to the client
- All unit tests pass with 100% code coverage
- Interface and Acceptance tests have passed

React Native