

Making Recipes Readable Again

Team 12

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Problem Statement

- Online recipe blogs are confusing.
- Difficult to navigate.
- Aim to reformat and modify.
- Web scraper to simplify.
- Hope this makes cooking more enjoyable.
- Hope to draw more people to cooking.

Example Website - Recipe is nowhere to be found



AIR FRYER CHICKEN TENDERS

I made these tasty chicken strips the other night for dinner along with some [orzo with zucchini and tomatoes](#), and my family loved them! They are super easy and quick for weeknight meals. [Air fryer recipes](#) are one of my top requests, so I promise to share more soon!



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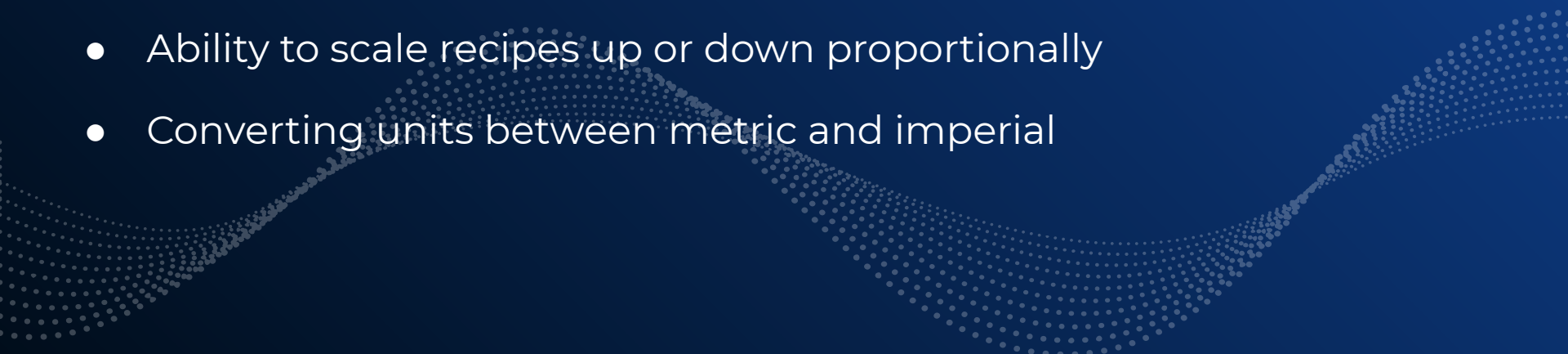


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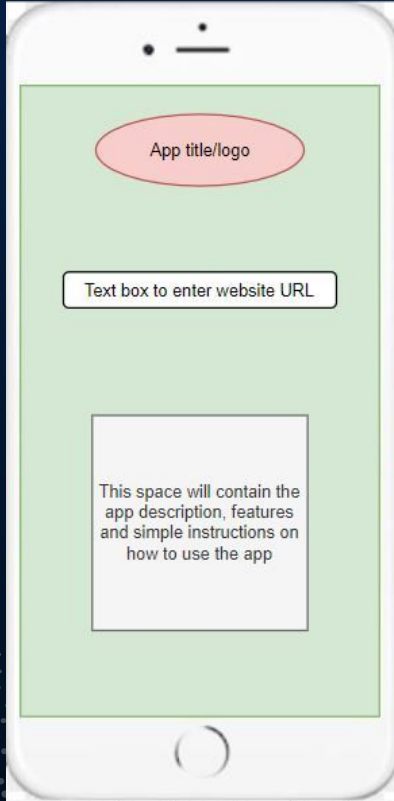
Functional Requirements

- Capable of loading a recipe from an arbitrary URL
 - Make recipe more readable by cutting off extraneous information
 - Changing instructions to include measurements / amounts
 - Ability to scale recipes up or down proportionally
 - Converting units between metric and imperial
- 

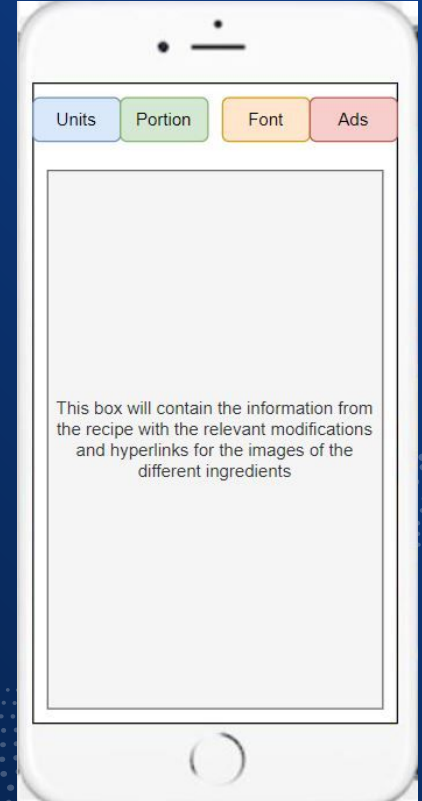
Non-functional Requirements

- Must work on a typical mobile device/smartphone
- May be platform-specific (e.g. Android), though cross-platform is ideal
- Interface must be user-friendly (typical user is expected to be viewing device from roughly one -meter away and using one non-primary finger to navigate)
- Fast - "Upgraded" recipes should load in 5s or less
- Solution should not interfere with the source's revenue stream (e.g. ads should still display)
- Should not require a user account (may be optional if it would help with desired features)
- Should not require backend infrastructure (server)

Conceptual Sketch



- Screen mockups developed for URL screen and recipe screen
- Employing an easy to understand/navigate design
- Designed to be used in the Kitchen while cooking
- Using neutral colors to ensure that users are distracted from the text

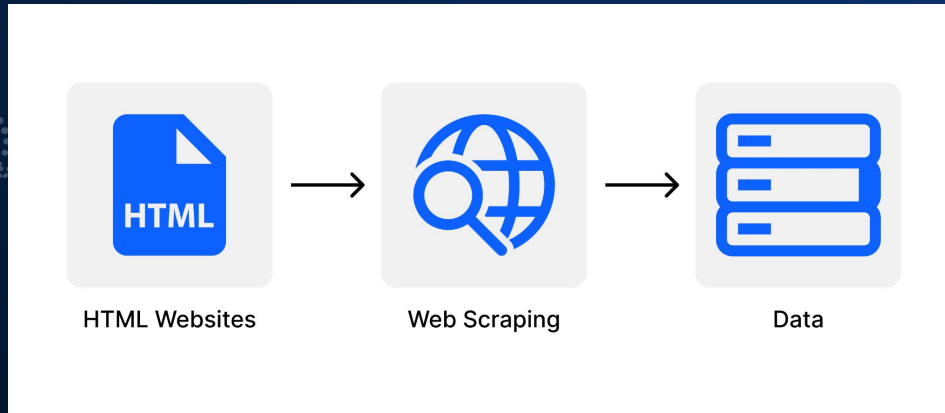


Block Diagram



Scraper

- Scraping was conducted by fetching a websites HTML then parsing out the recipe text
- Text is split and rearranged to match JSON format
- Once transformed it is sent to Backend for use




Expo

- Changed from developing in Android Studio to using Expo
- Expo provided several benefits:
 - Use various emulators/devices to test
 - Hot reloading
 - Debugging environment




Frontend implementation

- React Native with 2 main pages
 - Used VS code extension Styled Components
 - Button control events for data and page transfer
 - Team was new to JS as well as Styled Components
- 

App layout and page structure

- Non-functional requirement - easy to navigate UI
- App is comprised of two pages
 - Home page/URL page
 - Recipe page
- Spread out UI elements for app to be used in the Kitchen

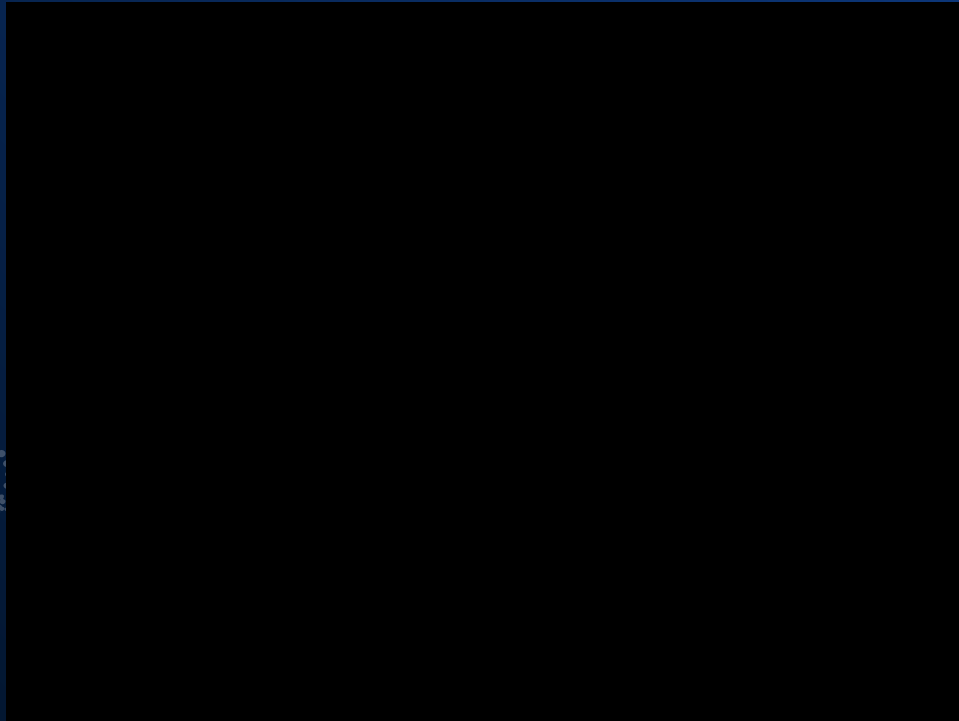
Challenges with front end development

- Lack of UI/UX design experience
 - Team was very new to React Native - extended skill development time
 - Lack of familiarity with the emulator software - Expo
 - Finalizing on the design elements and color schemes
- 

Backend/Data Storage

- Research on best local storage
- Extra feature functions
- Using JSON files as storage
 - Save and load with expo-file-saver
 - Custom useAsync
- Tested with Jest
- Didn't know local storage/db
- Node functions to React Native

Demo



Future Expansion

Requirements

- Loading from arbitrary URL
- Scaling and unit conversions
- Including measurements/amounts in instructions
- Font size adjustments
- The revenue stream

Possible solutions

- Machine learning/natural language processing
- Better training/knowledge in each area

Welcome! [Back](#)

Your streamlined website info will show up here!

Ingredients

1 (16 ounce) can refrigerated jumbo buttermilk biscuits
1 (9.6 ounce) package Jimmy Dean® Original Hearty Pork Sausage Crumbles
¼ cup flour
2 ½ cups milk
Salt and ground black pepper to taste

Cooking Instructions


Bake biscuits according to package directions.
Meanwhile, cook sausage in large skillet over medium heat

[Change Units](#) [Serving Size](#) [Font Size](#)

Challenges & Lessons Learned

- Training / Knowledge
- Over promising (Gold Plating)
 - Research during feature selection phase
- Focus Main functionality and then expand
- This is not our only class (Time management)
- We miss in person meetings
- Better task manager (Trello)

Thank you for listening
Any Further Questions?

A decorative graphic at the bottom of the slide consists of a series of small, light blue dots arranged in a wavy, undulating pattern that spans the width of the slide.