Design Review #1

Project Mealwrite: Team Rat in a Hat

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Mentored By:

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MealWrite Founders

- Jenny Hoffmann, PhD
  - Entrepreneur and cofounder of MealWrite
  - Peripheral Arterial business leader at Gore

- Martin Sector
  - Cofounder and CTO of MealWrite
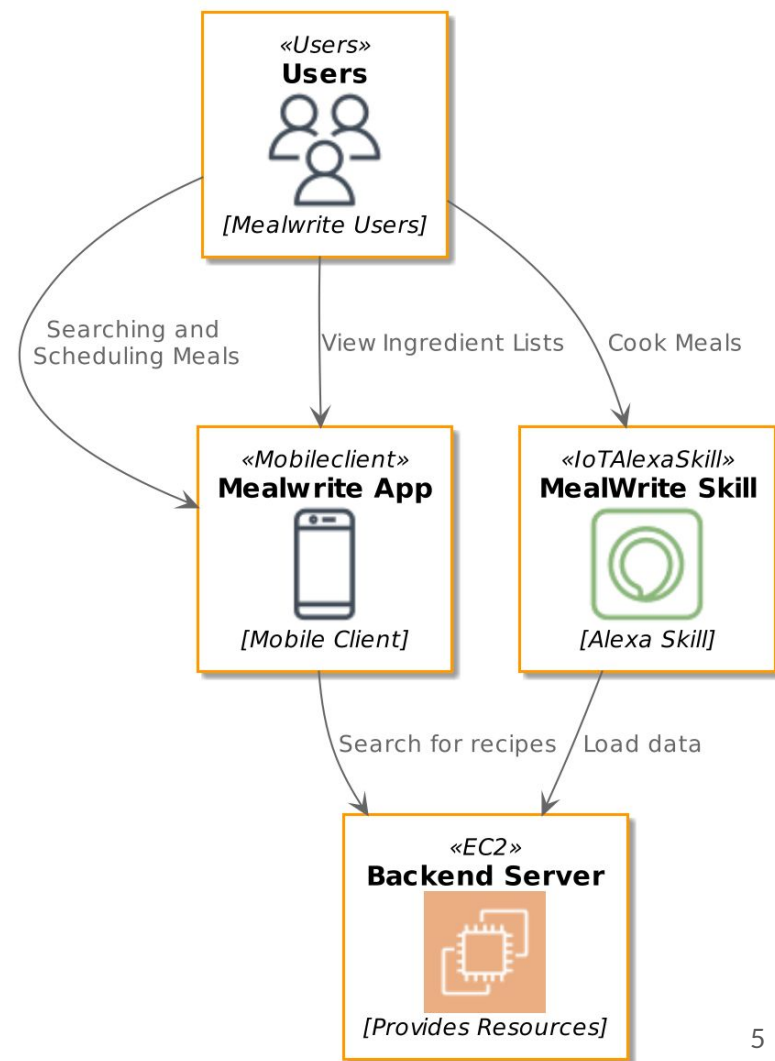 - Principal Technologist at Gore

Problem Statement

- Unplanned cooking process
    - Blind searching for recipes
    - Inadequate time management
- Difficulties with cooking alone
    - No one tells the cook what to do
    - Lack of time efficiency
    - Steps done one at a time

Solution Overview

- Mobile Application
  - Search for recipes
  - Schedule Recipes
- Alexa Skill
  - Voice Coach
  - Manage timers
  - Manage steps

«Users»
Users

[Mealwrite Users]

Searching and
Scheduling Meals

View Ingredient Lists

Cook Meals

«Mobileclient»
Mealwrite App

[Mobile Client]

«IoTAlexaSkill»
MealWrite Skill

[Alexa Skill]

Search for recipes

Load data

«EC2»
Backend Server
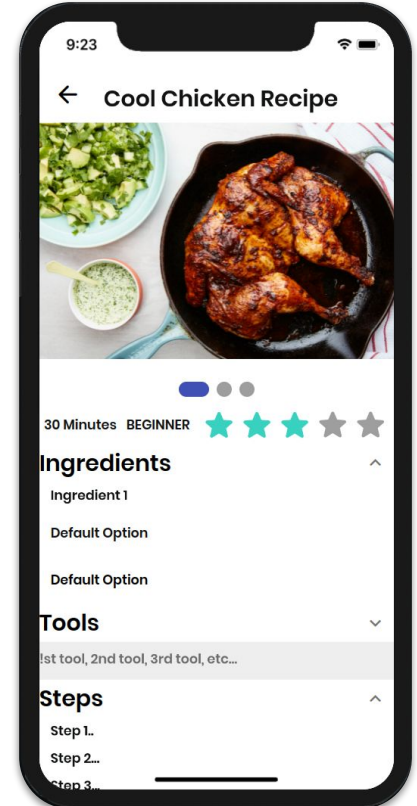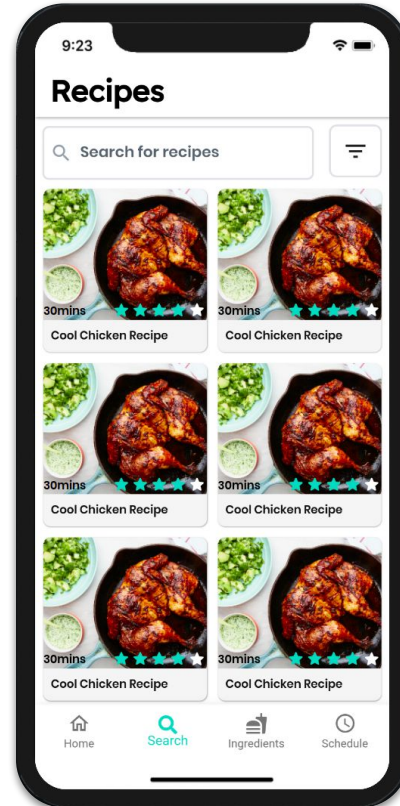
[Provides Resources]

Key Requirements

- Functional requirements
  - Mobile application
  - Alexa voice assistant
- Performance requirements
- Environmental requirements

Functional Requirements:

Mobile Application

- Search
  - Dietary Restrictions
  - Cuisine
- Plan
  - Date
  - Time
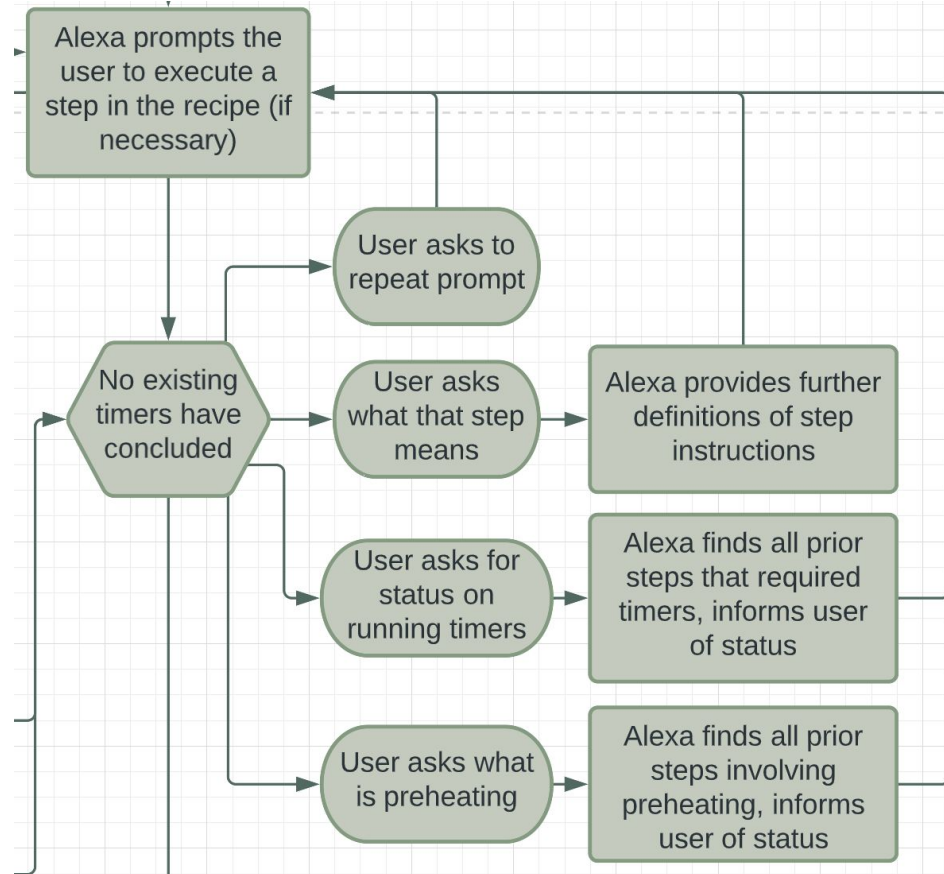 - Ingredient substitutions
  - Increase servings

Functional Requirements:
Alexa

Note: Provided image is segment of larger flowchart for clarity

- Time management
  - Running timers
  - Preheating
- User assistance
  - Clarify steps

Alexa prompts the user to execute a step in the recipe (if necessary)

User asks to repeat prompt

No existing timers have concluded

User asks what that step means

Alexa provides further definitions of step instructions

User asks for status on running timers

Alexa finds all prior steps that required timers, informs user of status

User asks what is preheating

Alexa finds all prior steps involving preheating, informs user of status
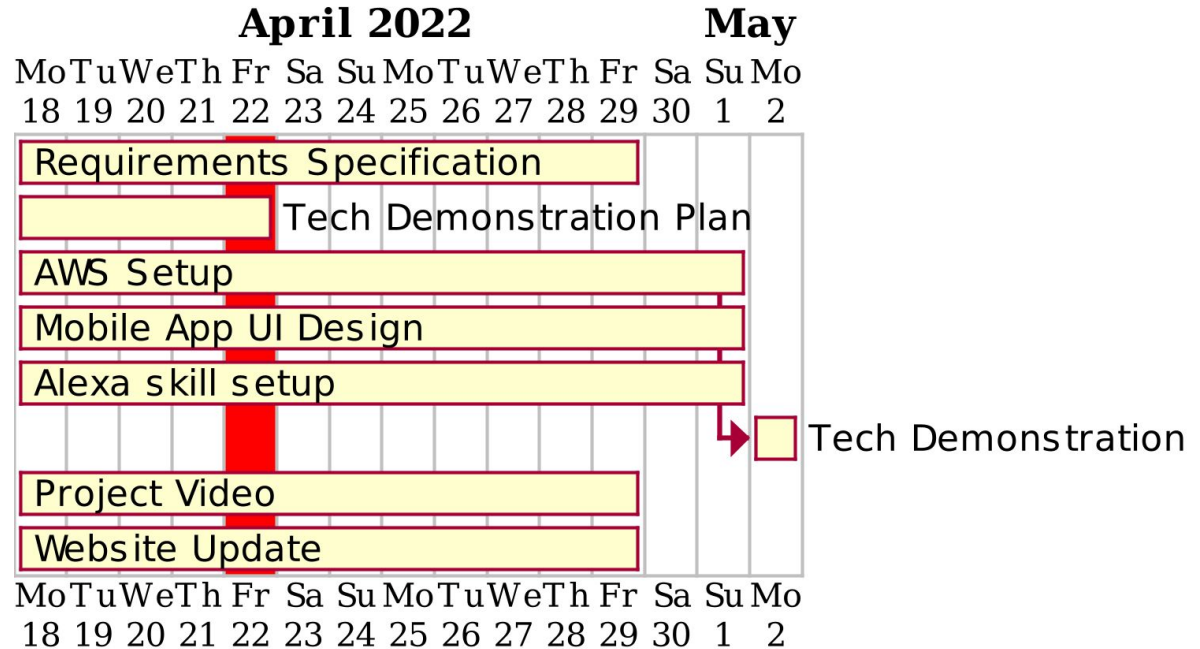
Performance and Environmental

- Storage
  - Recipes
  - User Accounts
- Performance
  - Scalability
- Environmental
  - Alexa Device
  - Android Phone
  - Cloud infrastructure on AWS

Risks

- Release of direct competitor

- Alexa or other features are deprecated

- AWS price increase

- Unforeseeable programming issues, involving third parties

- Loss of a member of the development team

Project Plan

April 2022

May

Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo
18	19	20	21	22	23	24	25	26	27	28	29	30	1	2

Requirements Specification

Tech Demonstration Plan

AWS Setup

Mobile App UI Design

Alexa skill setup

Tech Demonstration

Project Video

Website Update

Conclusion

- Our clients and team aim to solve the home cooking problems of the modern world
- Project MealWrite will involve a multitude of moving parts necessary for project completion
- Potential risks are accounted for
- Proper scheduling systems are in place

Thank you!