

HOT DAWG

Creating a healthy recipe app facing the next generation users that wants a simple, stress-free, "do-it-all" platform, where the user can not only control their meal, but also their healthy lifestyle all in one site.

Let's walk thru our 5 step process:

DISCOVER - DEFINE - DESIGN - PROTOTYPE - IMPLEMENT



DEFINE - PROBLEM SPACE

HMW Statement:

How might we create a recipe app for youth like us who wants to experience great food and at the same time, be healthy and stay in shape.



DISCOVER - USER PERSONAS



User Studies

Name : Bobby
Bio: Professional video gamer

Goals

- Spend more time gaming and worry less about other things
- Wants to win the next Fortnite tournament

Needs

- Want to find time to make food for himself
- Wants to start eating healthy and variety of meals
- Wants to find simple and easy recipes that don't take much time

Felix Eli
Student at UCSD

Needs

- Doesn't know how to cook, so needs simple recipes
- Needs to be able prepare meals fast because he needs time to study
- Lives in an on-campus apartment with a very small kitchen, so he needs to have much space to cook
- Is a student athlete, so needs nutritious meals

Goals

- Find a balance between studying, sports, and a healthy lifestyle
- Eat at least 2500 calories per day

Alex
Fitness enthusiast

Needs

- Wants to gain enough protein and other nutrients to increase muscle
- Because he eats a lot of meals a day, he hopes that the recipes are convenient to make quickly, easy to carry, and can be made a lot at one time
- Less salt and less meat

Goals

- Go to the gym every day for the next year
- Balance his time allocation between work and fitness

Connor Jones
Travel Enthusiast

Needs

- Travels a lot, so he needs to work with the local ingredients
- Loves to learn but working with simple ingredients is hard
- Lives in temporary housing which has limited cooking equipment

Goals

- Makes dishes that are representative of the culture
- Work with inexpensive local ingredients since traveling is rather expensive

Betty
Elderly Woman

Needs

- Wants to prepare easy recipes that are not expensive or time consuming
- Prefers that ingredients are local and do not require extravagant orders
- Has trouble reading and writing
- Elderly so requires nutritious meals

Goals

- Make some of her childhood favorites that she's forgotten
- Wants to make sure her nutrition is on point

Ashwin Kagiso
Owner of Indian Restaurant

Needs

- Looking for Indian recipes and recipes that common in Indian culture
- Needs recipes that use rice and potatoes since his restaurant always has those ingredients in stock
- Looking for recipes that are simple, quick, and easy to make so he can expect a high level of quality and complexity when they eat at his restaurant
- Looking for recipes with cheap ingredients so that his restaurant can generate the most profit

Goals

- Have a menu with a wide variety of Indian cuisine
- Maximize profit in his restaurant

Josh Darwin
Young Adult with New Job and Career

Needs

- Wants to find recipes that he can make easily, and also recipes that he can prepare for friends when they come over
- Wants to view simplified versions of recipes that are "easy dinner recipes"
- Wants to find substitutions when an ingredient is not necessary or provide a common substitute for an ingredient

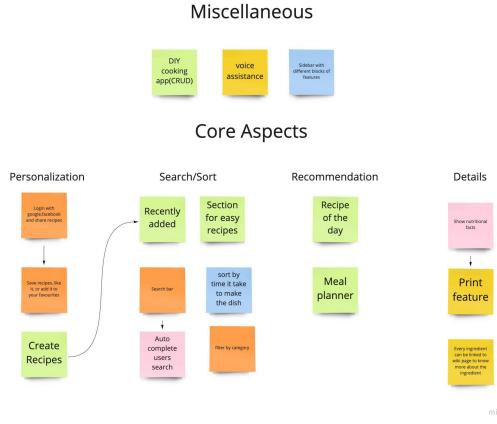
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DISCOVER - USER SPECIFIC FEATURES



More User Studies

Key Takeaways:

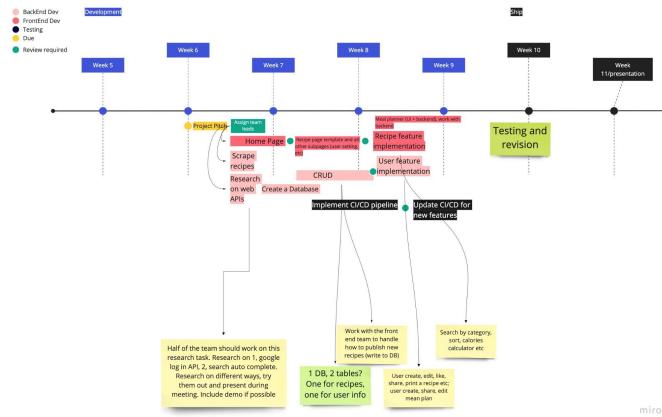


- User Groups share similar backgrounds: gym, diet on weekdays, party on weekends, hard to keep track of food intake, short cooking time.
- Healthy food is not only the food on your plate, it's about the lifestyle, the calories tracking, the mindfulness and everything in between.

IMPLEMENTATION



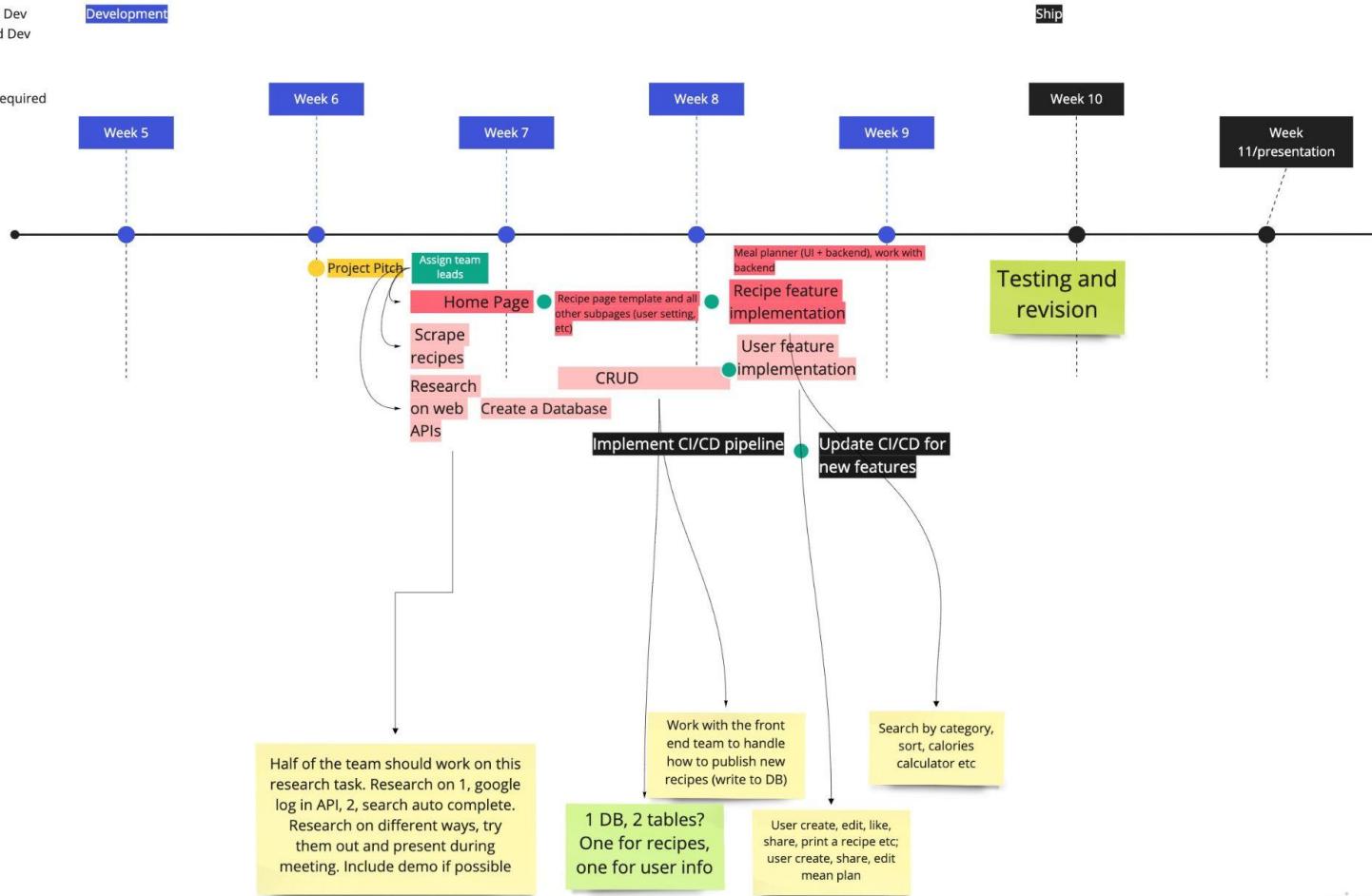
Appetite



Key Takeaways:

- Focus on Basic Features first (Weeks 6-8)
- Breakdown works into Front, Back, Design Group
- Advanced Features to be added later (Weeks 9)
- Week 10 is for finalizing and presenting our App

- BackEnd Dev
- FrontEnd Dev
- Testing
- Due
- Review required



DEFINE



Feature Finding

Key Takeaways:

- Most popular websites nowadays are multi-function sites, top recipe sites are far beyond recipes, they are lifestyle blogs, cookbook, and sometimes even social media
- At the same time, most sites can be too complicated to navigate, with too many features, there can be a lot for the user to get used to

	User Personas	What's Good?	What is Bad?	What Features we can take?
allrecipes.com			Main page is boring and cluttered not visually appealing	Search by ingredient Categorized your favorite recipes in account
Epicurious	For users to find recipes for their dishes. Older who have too much time to read Not really step-wise recipe	W User commonly uses step-wise recipe It has a feature for saving recipes automatically to their account	L The user design is almost entirely visual, it's hard to remember what they like the site, etc. Many unnecessary ads, it's hard to find what you're looking for Wendy asks sign-in feature	Social media recipe app with some existing recipes Easy navigation, simple search feature
simplyrecipes.com	Normal people looking for recipes. A student who is a novice at cooking and wants to make some egg muffins	A feature that will give a user part and full recipe for their dish that they can print off Normal people looking for recipes.	Much clutter in the main page, it's hard to find what you're looking for There's a comment section for each recipe Comments section for each recipe Estimated cooking time	Log-in on the top left Gives users the ability to save their favorite dishes Users can see what other users are saving, and can also see associated dish information such as reviews and rating from other users There are features that are very useful, such as a shopping list, a grocery list, and a meal plan feature.
Yummly	Let users find the recipes they want in a variety of situations.	Welcome design is clean and not elegant. Easy navigation, good search and filter feature	Require your confirmation to unlock features. advertisements of their own thermometer	Keep leading new recipes, it's hard to scroll down, which is not user friendly Have a sidebar containing different kinds of features pantry-ready recipe search by ingredients, I want to eat what I have and save your time by telling you the food you have. Meal Planner put several dishes together to make a dinner combination.
food.com	For beginner		There is no food category for users to choose, it's like if you were to go to a grocery store and there was no food section. The resolution of some images is not high, it doesn't look great	There is a rating system for each recipe There is a comment and sharing section for each recipe. Inside the recipe there is a link to the grocery store where the ingredients is and even a link to the grocery store where you buy the ingredients

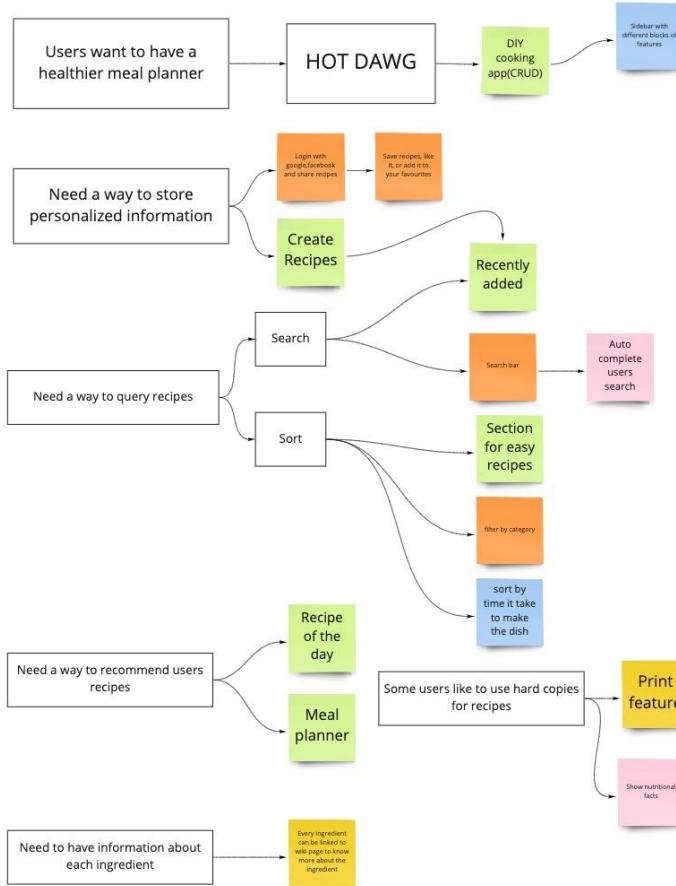
Get recipes based on ingredients. Also have other filters like diet, time, health, vegan	Have a small app button that takes you all the way to the top when you click on the page	Save recipes, like it, or add it to your favourites	Have a rating system	Seasonal recipes	Filter by most viewed or added to favourites	Share recipes	Login with google/facebook	filter by cuisine	Search bar
Meal planner	Recipe cost calculator	Unit converter	DIY cooking app(CRUD)	Recently added	Sort by servings	Make personal notes to recipes	Plan meals, have a calendar	Notifications on recently added	
Filter by time. Ex: Breakfast, Lunch or Dinner	voice assistance	Photo gallery	Video tutorials	Print feature	Get latest news about cooking	Every ingredient can be linked to wiki page to know more about the ingredient	Have a jukebox and a special spotify list for our project	pull up recipes based on barcode of an ingredient	
Review system	Auto complete users search	Ability to search recipes by characteristics	Shopping list to add stuff that you will need for the recipe	Grocery store locator	Shazam for food	Switch between modes: cooking mode, shopping mode	Upload pictures after cooking		
Read content	Manage users	Auto lock screen	See what your friends are cooking	See your friends favourites	Spotify kinda recipe app	Facebook reactions for recipes	Dark mode/light mode		
subscribe to notifications button	filter by budget	quick links	sort by time it take to make the dish	personalized experience	smart thermometer	404 page	15 mins easy meal		
Holiday special dishes: look for the festival closest to the current date.	Section for easy recipes	Recipe of the day	Create Recipes						

Basic CRUD Features:

- Easy-to-navigate Landing Page
- Quick Search
- Recipe of the day or Similar Feature
- Choices Based on Diet Style
- User Login
- Save Your Own Recipes
- Encounter New Recipes

None CRUD Domain Specific Features

- Calories Planner
- Timer
- TTS to read steps to Users
- Daily Suggested Calories Calculator



After we found features that we liked, we filtered them even more to make sure that they met actual user needs.

Features & Technologies Breakdown

CRUD:

- ✓ Basic Recipe Searching Function → Spoonacular API //Backend //Frontend
 - ✓ Allow User to add/delete new recipe → Credential Database (MySQL) //Backend
 - ✓ Landing Page w/Recipe of the day generator/ recommendation → Spoonacular API - getSimilar, getRandom //Backend
 - ✓ Nutrition Facts on individual recipe → Spoonacular API //Frontend
- // maybe not do this ✓ Filter based on dietary restriction → Spoon
- ✓ User Login Feature → Credential database (MySQL) //Backend

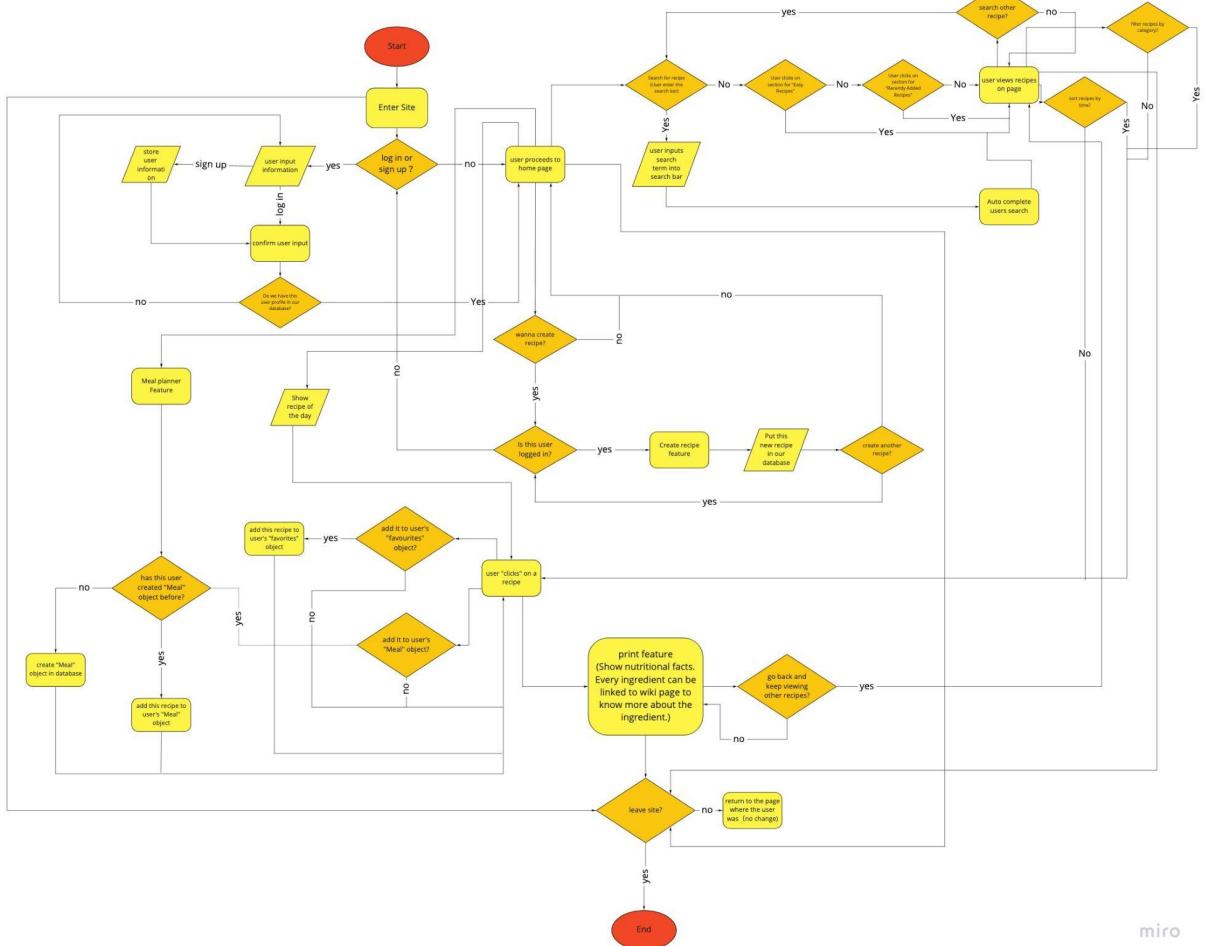
Not CRUD

- (1) ✓ Calories tracking Feature → Spoonacular API + any JS pie chart library (spoonacular support, chart.js, zingchart) //Frontend
- (2) ✓ Timer → Spoonacular API fetch duration for recipe (after the time ends, it will play a horn, and confetti) //Frontend
- (3) ✓ Suggested daily Calorie Calculator → input height/weight, output suggested calories, BMI and maybe other stuff (formulas can be found online easily) something like [this](#) //Frontend

Overview:

- | | |
|-------------------------------|---------------------------------------------------------------------------------|
| (1) Landing Page | > Basic Recipe Features (completely dependent Spoonacular API) |
| (2) Login Page + User Info DB | > Saving Recipes, Updating Recipe (just a note taking thingy w/ several fields) |

Action Items:



For the UML part, we simulated what users do when they enter the site

DESIGN - LOFI



Low Fidelity

Landing Page

LOGO HOT DAWGS

search bar

ingredient breakfast lunch dinner time taken
vegetable etc etc etc etc

Recipe of the Day

Bowl of Yummy Chowder

Time: 10 minutes

★★★★★

Recipe Page

LOGO HOT DAWGS

search bar

ingredient breakfast lunch dinner time taken
vegetable etc etc etc etc

Bowl of Yummy Chowder

★★★★★ Time: 10 minutes

KETO peanuts etc etc

Ingredients

Liquid proteins

Lean or sole

etc

etc

Steps

- ~
- ~
- ~
- ~
- ~
- ~
- ~
- ~
- ~
- ~

Extra Features

LOGO HOT DAWGS

Calorie Tracker

1400 3000

Schedule

Breakfast

✓ calories

Lunch

✓ calories

Dinner

✓ calories

Recommend Water Intake

Current weight: 170 lbs

Rec. water: 85oz - 170oz

Current Intake [-] 60oz [+]

add/sub 1 oz

DESIGN - HIFI



Wireframe

[Click Here for Link](#)

HOT DAWG Search for Recipes...

Recipes Mealplans Saved

Top Recipes



Pumpkin Pie
Easy To Make | Snack | Torte
1 Hour | 8 Ingredients



Avocado Salad
Keto Friendly | Vegan Friendly | Low Carbs
30 Min | 8 Ingredients



Homemade Tacos
Lunch | Low Carbs
40 Min | 8 Ingredients

Recommended



Charred Focaccia and Steak Salad
Keto Friendly | Lunch | Healthy
20 Min | 3 Ingredients



Acai Bowl
Quick Snack | Healthy
20 Min | 3 Ingredients



Grilled Cheese
Breakfast | Brunch | Easy
10 Min | 3 Ingredients

HOT DAWG Search for Recipes...

Recipe Mealplan Saved

Search Results for... Salads

[Modify Searches](#)

[Add Your Own](#)



Caesar Salad



Garden Salad



BrightSprings



HOT DAWG Search Recipes

Pumpkin Pie



DESIGN - Example Landing Page

HOT DAWG

Select The Food/Lifestyle You Like

We will suggest recipes based on your Lifestyle!



Keto



Dorm Friendly



Post Workout



Outdoor



Vegan



Artsy



Brogrammer



Party Food

JOIN >

HOT DAWG

Search for Recipes...

Recipes

Mealplans

Saved

Top Recipes



Pumpkin Pie

Easy To Make | Snack Time
1 Hour | 8 Ingredients



Avocado Salad

Keto Friendly | Vegan Friendly | Low Carbs
30 Min | 6 Ingredients



Homemade Tacos

Lunch | Low Carbs
40 Min | 8 Ingredients

Recommended



Charred Focaccia and Steak Salad

Keto Friendly | Lots of Greens
20 Min | 5 Ingredients



Acai Bowl

Quick Snack | Healthy
20 Min | 5 Ingredients



Grilled Cheese

Breakfast | Brunch | Easy
10 Min | 3 Ingredients

DESIGN - Example Search & Recipe

HOT DAWG

Recipe ▾

Mealplan

Saved



Search Results for... Salads

Modify Searches

Add Your Own



Ceaser Salad



Garden Salad



BrightSprings



HOT DAWG

Recipe ▾

Mealplan

Saved



Pumpkin Pie



Steps:

1 Heat oven to 425°F. In medium bowl, mix flour, 1/2 teaspoon salt and the oil with fork until all flour is moistened. Sprinkle with cold water, 1 tablespoon at a time, tossing with fork until all water is absorbed. Shape pastry into a ball. Press in bottom and up side of 9-inch glass pie plate.

2 In large bowl, beat eggs slightly with wire whisk or hand beater. Beat in 1/2 cup sugar, the cinnamon, 1/2 teaspoon salt, ginger, cloves, pumpkin and milk.

3 To prevent spilling, place pastry-lined pie plate on oven rack before adding filling. Carefully pour pumpkin filling into pie plate. Bake 15 minutes.

4 Reduce oven temperature to 350°F. Bake about 45 minutes longer or until knife inserted in center comes out clean. Place pie on cooling rack. Cool completely, about 2 hours.

5 In chilled medium bowl, beat whipping cream and 2 tablespoons sugar with electric mixer on high speed until stiff peaks form. Serve pie with whipped cream. Store in refrigerator.

Ingredients

Pat-in-the-Pan Pastry

1 1/3 cups Gold Medal™ all-purpose flour
1/2 teaspoon salt
1/3 cup vegetable oil
2 tablespoons cold water

Filling

2 eggs
1/2 cup sugar
1 teaspoon ground cinnamon
1/2 teaspoon salt
1/2 teaspoon ground ginger
1/8 teaspoon ground cloves
1 can (15 oz) pumpkin (not pumpkin pie mix)
1 can (12 oz) evaporated milk

Nutrition Facts

185 Calories, 2 g Total Fat, 7 g Protein, 37 g Total Carbohydrate

#SnackTime

#EasyBake

#Holloween

#Keto

#Vegan

DESIGN - User Profile & Meal Planner (Advanced Features)

HOT DAWG

Search Recipes

Recipes ▾ Mealplans Saved



Hello, World

Edit Profile



Biography

add content here!

Saved Recipes & Hashtags

Salads Pies Holloween Specials Holloween Specials

#UnderAnHour #EasyBake #OvenFree #Keto #Vegan

HOT DAWG

Search for Recipes...

Recipe ▾ Mealplan Saved



A pie chart showing nutritional breakdown:

Nutrient	Value
Fat	31g
Protein	44g
Carbs	120g



IMPLEMENTATION



Potential Rabbit holes

In Built Timer:
Different devices
may pose different
cook times. Thus a
universal timer may
not cater to all
users.

Ingredient filter:
Data base may
not have that
specific ingredient
for unique dishes.

Search Bar: Will it
shows
suggestions, allow
for search by
recipe, other
similar dishes?

Recipe Cost
Calculator: Will there
be a currency
converter for
currencies other
than USD?

If we go Social
Media route will
there be existing
recipes from us
already on there?

For auto scroll feature,
will we use voice
recognition feature?
Will the sound of
kitchen appliances
possibly affect this
feature/functionality?

Filter by time: Potential
issue with different
time zone users. We
need to use the user's
local time to establish a
filter by time feature.

Auto-lock screen: To
unlock will we
implement voice
activated unlock, or
will it be a touch to
unlock feature.

See what ur friends
are cooking: Will be
enable the option to
turn this on or off if
we decide to add
this feature?

Dark/light mode:
Will this mess with
any of the fonts or
pictures we have on
our webpage?
Possibly bad for
user if done wrong.

Picture gallery: Will
user pictures being
uploaded be added to
the gallery or will
this be a separate
feature?

Filters: Will we
add multiple
filters or just one
at a time like
price/ingredients?

Wikipedia page
link: links to
wrong page (same
name) or
ingredient isn't
found

Create recipe: what
if we don't have an
ingredient that the
user wants to use in
his/her recipe (and
how will that link to
Wikipedia).

- Dark Mode
- Speed of Loading Information
- Image Size Support
- Cross Platform Compatibility

IMPLEMENTATION



Design Choice: No Gos

In Built Timer:
Different devices
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- Rejected idea: voice control
 - Hard to implement cross platform
 - Hard to make it work well in a noisy environment
 - Time constraint

NEXT STEPS

Moving Forward...

- More User Research
- Rapid Prototype
- Feature Based Development



Questions?

