# MICHIGAN STATE UNIVERSITY Alpha Presentation Enhanced Shopping Experience Using Al The Capstone Experience

#### Team Meijer

Matthew Crandall Zachary Gage Chirag Rudrangi Cameron Schwartz Tatiana Voegerl

Department of Computer Science and Engineering Michigan State University Fall 2023



...to Professionals

#### **Project Overview**

- Make it easier for customers to find recipes that they will like
- Create custom recipes based on dietary preferences and purchase history
- Contained in web application

## System Architecture



#### Home Screen after Recipe Generation

Guest □ □ Create Next App x  ← ○ □ localhost:3000/home meijer				A* 0	-	8	×
About News Contact							
Hello Lauren! Generate a recipe:		Meal:	Recipe Results	Diet:			
Breakfast Lunch	Dinner Dessert	(Dener.)	(Nds)	Low Carb			
Preferences: Allergens Nuts Gluten Dairy Fish Shettfish Eggs Soy	Diet Vegen Raw Keto Low Carb Halal Paleo	Diner Ranch Smash Burgers View Rocipe	Direr Herb Crusted Rib Roast View Recipe	Dirose Al'Fez Moroccan Meatballs View Recipe			
1 meal(s)	Generate						
		Diner	Dister	Direer			

Team Meijer Alpha Presentation

## **Recipe Modal**

(g Quest)	Create Next App x +			- 0	×		
< C ()	pcalhost:3000/home	A <sup>6</sup>	0	¢ %;	***		
meijer					î		
About News			4				
	Ranch Smash Burgers	х	î				
	Instructions						
Hell							
Genera	Refrigerate wrapped patties for at least 10 min while you prepare everything else.						
	iii. Brush a cast iron pan or large skillet with olive oil, and place over medium high heat. Season both sides of two patties with the ranch seasoning mix and place 2 at a time in the pan. iv. Sear for about 1-2 min and flip over; as soon as your flip the patty over, place a slice of the cheese on the patty to melt, and cook another 1-2 min. Remove, and repeat with remaining burgers.						
	v. To assemble, place some shredded lettuce on the bottom of each bun. Stack two burger patties on top of each other on top of the lettuce; then add a spoonful of the caramelized onions or	n top.					
Preie	Drizzle some ranch over everything and place the top of the burs onto the burgers. Serve immediately.						
Xii	ingredients						
		5					
1							
			8				
	Beef Olive Oil Onion Salt American Cheese Lettuce		1				
		1	4				
		-					
	Description of the second se						
C					3		

## **Recipe from GPT Output**

	ost:3000 says
Ingredients:2. Place- 1 lb salmon fillet3. Drizzle- 2 cloves garlic, minced4. Sprink- 1 lemon, sliced5. Squee- 2 tablespoons olive oil6. Seaso- Salt and pepper to taste7. Place	ions: eat the oven to 375°F (190°C). the salmon fillet on a baking sheet lined with foil. le olive oil over the salmon, ensuring it is evenly coated. kle minced garlic evenly over the salmon. eze the juice of half a lemon over the salmon. on with salt and pepper to taste. lemon slices on top of the salmon. in the preheated oven for about 15-20 minutes, or until the

ОК



OK

## Frequently Purchased Products and Image

PS C:\Users\zachg\Desktop\CSE 498\capstone\_meijer> npm run sqlalpha

> meijer-next@0.1.0 sqlalpha
> node ./sql/sqlalpha.js

Get the top 8 most frequent pruchases from userID 2 429, 555, 1543, 1866, 2066, 496, 1018, 1725

Get me the names of the product related to the upid so I can tell GPT the product name 429 - Meijer 100% All Natural Boneless Skinless Chicken Breasts, Family Pack 555 - Fresh from Meijer Mild Italian Sausage Links, 19 oz 1543 - Meijer Shredded Mozzarella Cheese, 16 oz 1866 - Meijer Extra Virgin Olive Oil, 17 oz 2066 - Meijer Lasagna Pasta, 16 oz 496 - Meijer Restaurant Style Meatballs, 20 oz 1018 - Garlic, 1 lb 1725 - Meijer Spaghetti Pasta, 16 oz

Get the image (in base64 string) of the most frequently purchased product iVBORw0KGgoAAAANSUhEUgAAAlgAAAJYCAYAAAC+ZpjcAAAAAXNSR0IArs4c6QAAIABJREFUeJzsvemWJLeRJXwNcI+IXGthVbFY... Acutal length of image base64 string is 308740 characters long

O PS C:\Users\zachg\Desktop\CSE 498\capstone\_meijer>



## What's left to do?

- Ordering API
- Saving recipes
- Increase efficiency
- User dashboard
- Update UI to match new prototype

## **Questions?**



The Capstone Experience