

MICHIGAN STATE

U N I V E R S I T Y

Project Plan Presentation

mHealthy: Healthy Eating Application

The Capstone Experience

Team Meijer

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*From Students...
...to Professionals*

Functional Specifications

- Help customers make healthy choices by providing easy-to-understand information with a mobile application
- Create categories such as Gluten-Free, Keto, etc.
- Provide suggestions for healthy eating
- Design to be integrated into the current Meijer website and app

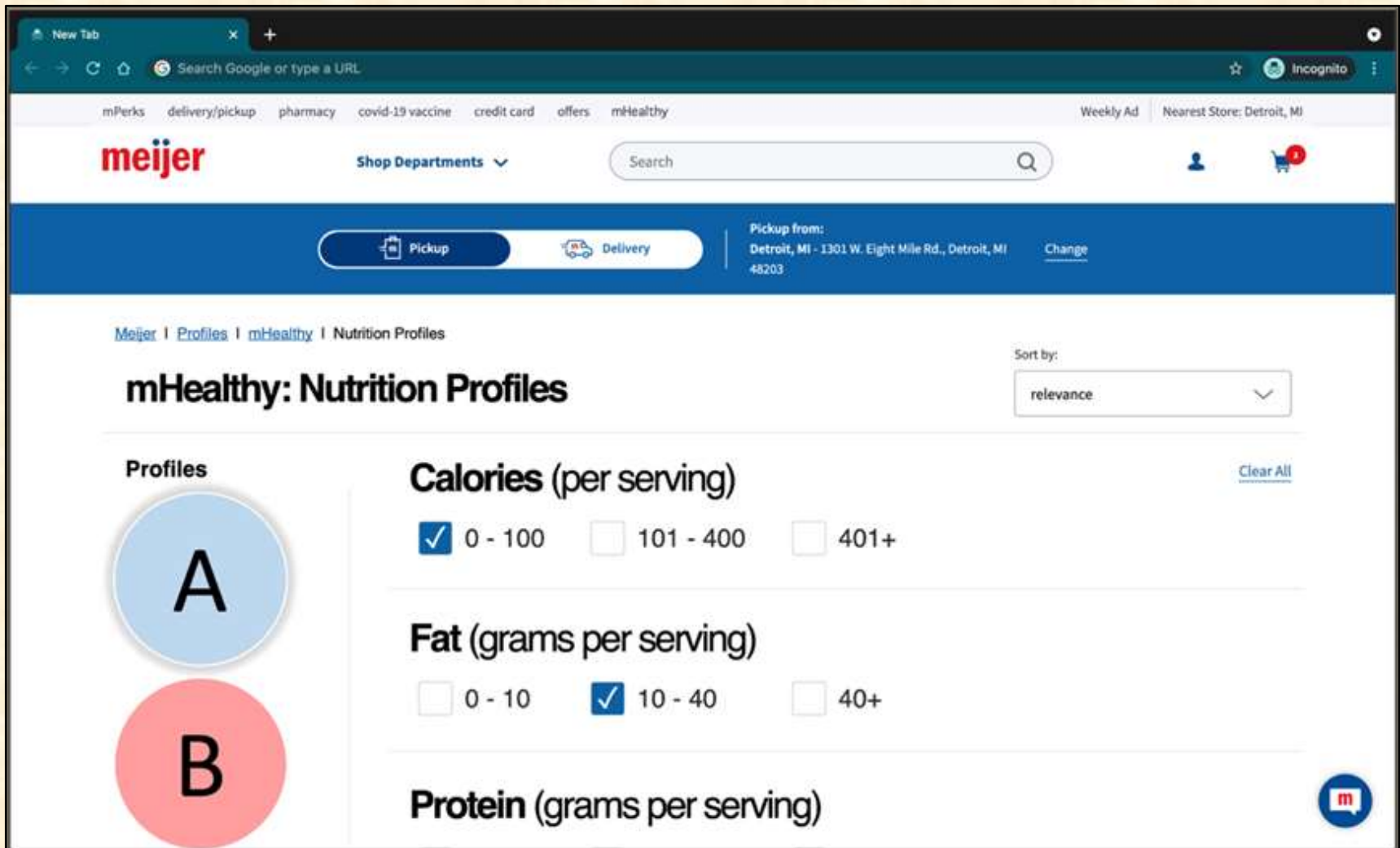


Design Specifications

- Allow users to create profiles based off nutritional preferences
- Allow users to shop for products using the filters within the profiles
- Suggests healthier alternatives to food already in shopping cart



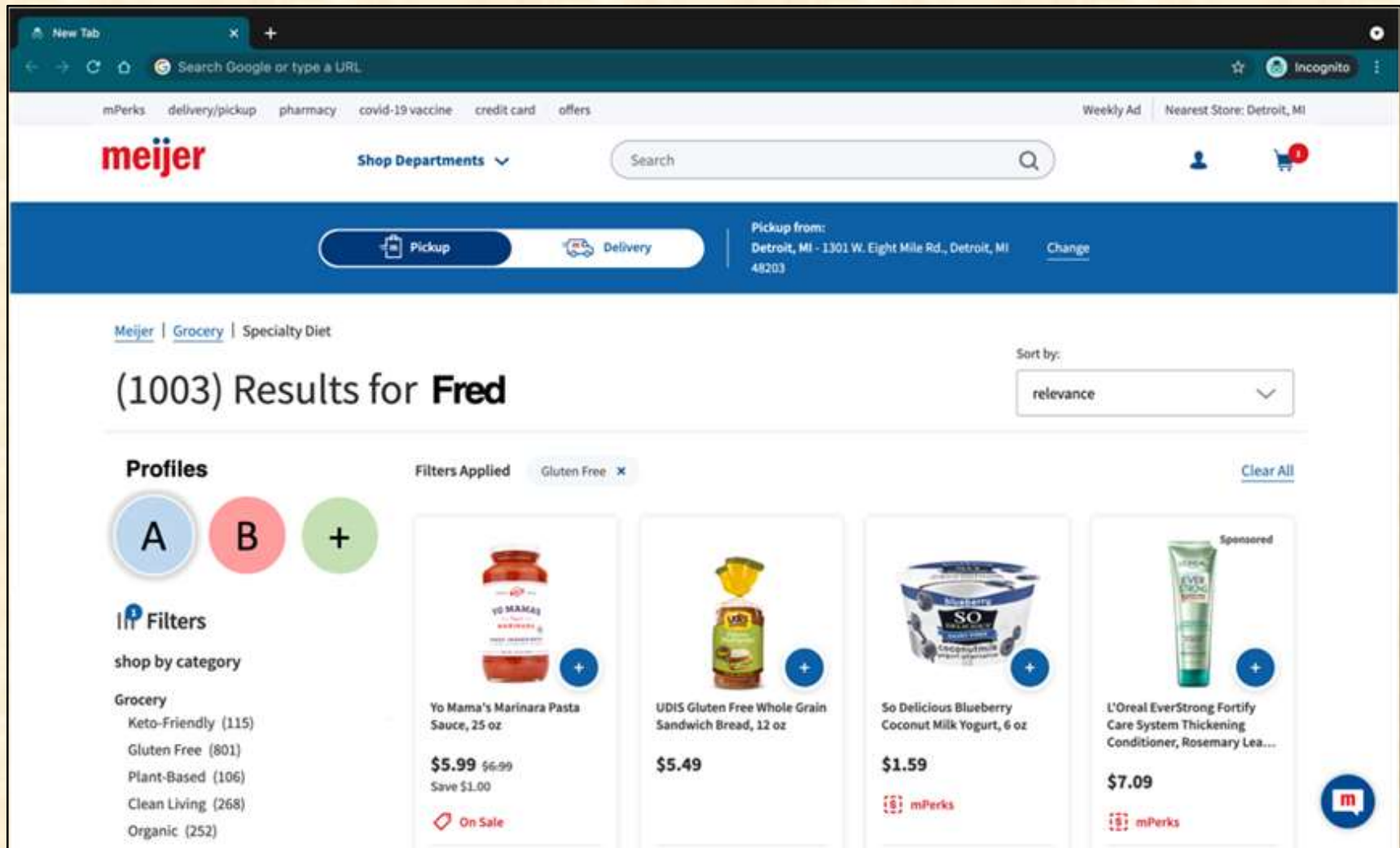
Profile Page (Web Mockup)



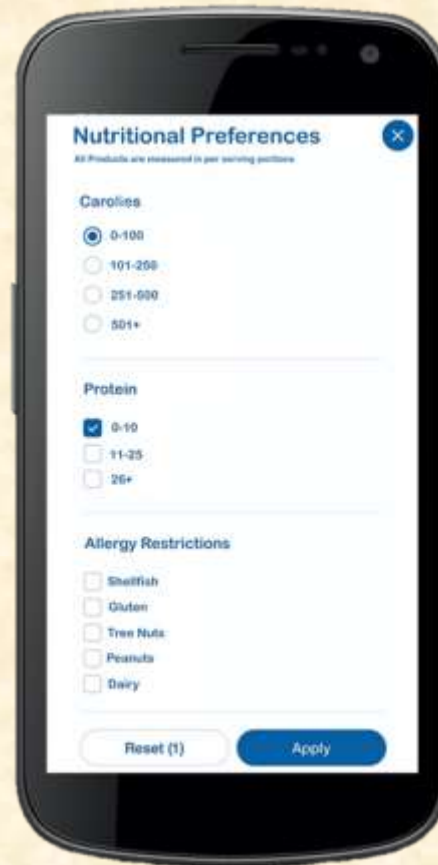
Profile Page (Mobile Mockup)



Shopping Page (Web Mockup)



Shopping Page (Mobile Mockup)



Shopping Cart (Web Mockup)

The screenshot shows a web browser window displaying the Meijer website's shopping cart. The browser's address bar shows "Search Google or type a URL" and "Incognito". The Meijer logo is in the top left, with navigation links for "mPerks", "delivery/pickup", "pharmacy", "covid-19 vaccine", "credit card", "offers", and "mHealthy". A search bar is in the top center, and a shopping cart icon with a red notification badge is in the top right. Below the navigation is a blue bar with "Pickup" and "Delivery" buttons, and a "Pickup from: Detroit, MI - 1301 W. Eight Mile Rd., Detroit, MI 48203" section with a "Change" link. A "mHealthy: Dietary Suggestion" banner is below, featuring a product "Starkist Chunk Light Tuna in Water 5 oz." for \$1.29 and a message: "We noticed that your items do not match your nutrition preferences. We have found that this item will get you closer to achieving your health goals!". Below the banner are three circular buttons labeled "A", "B", and "+". The main shopping cart area is titled "Shopping Cart (3 Items)" and includes an "Empty Cart" link. It lists two items: "Ball Park Hotdog Buns - 8 Count" for \$2.19 each and "Ball Park® Classic Hot Dogs, Bunsized Length, 8 Count" for \$3.19 each. An "Order Summary" box on the right shows a subtotal of \$9.17, pickup fee of \$4.95, deposit of \$0.00, taxes of \$0.00, savings of -\$0.00, and an estimated total of \$14.12. A "Sign in and save!" prompt is also present. A chat icon is in the bottom right corner.

New Tab x +

Search Google or type a URL

Incognito

mPerks delivery/pickup pharmacy covid-19 vaccine credit card offers mHealthy Weekly Ad Nearest Store: Detroit, MI

meijer Shop Departments Search

Pickup Delivery

Pickup from: Detroit, MI - 1301 W. Eight Mile Rd., Detroit, MI 48203 Change

mHealthy: Dietary Suggestion

Starkist Chunk Light Tuna in Water 5 oz. \$1.29 add to my cart

We noticed that your items do not match your nutrition preferences. We have found that this item will get you closer to achieving your health goals!

A B +

Shopping Cart (3 Items) Empty Cart

Ball Park Hotdog Buns - 8 Count 1 \$2.19 each \$2.19

Ball Park® Classic Hot Dogs, Bunsized Length, 8 Count 1 \$3.19 each \$3.19

Order Summary

Subtotal	\$9.17
Pickup Fee	\$4.95
Deposit	\$0.00
Taxes	\$0.00
Savings (Sale & mPerks)	-\$0.00
Estimated Total	\$14.12

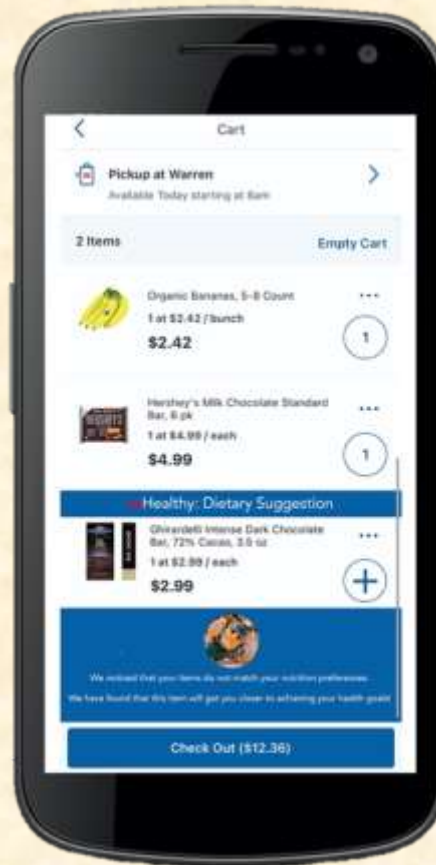
Sign in and save! Apply mPerks rewards to this order and save towards your next reward!!!!

Have a promo code? [Sign in to redeem.](#)

We'll determine the final price, including discounts and taxes, when we complete your order. We can't accept cash and paper coupons for online orders.



Shopping Cart (Mobile Mockup)



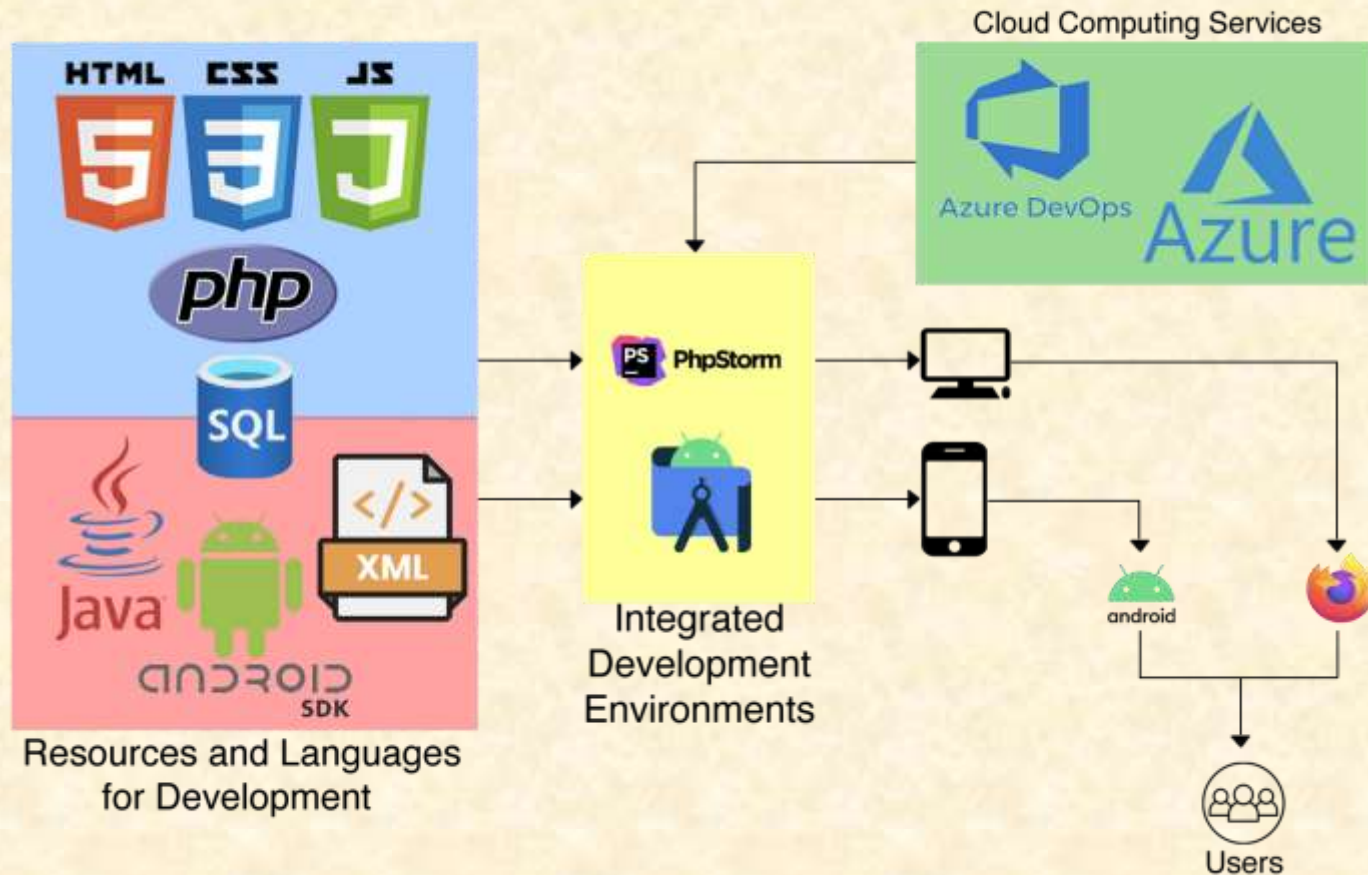
Technical Specifications

- Android Studio – Java, XML, Android SDK
- PhpStorm – PHP, HTML, CSS, JavaScript
- Microsoft Azure SQL Database
- Microsoft Azure DevOps Repository



System Architecture

System Architecture



System Components

- Hardware Platforms
 - Android Mobile Device
 - Samsung Galaxy S3 (Physical)
 - Nexus S API 30 (Emulator)
 - Nexus 7 API 22 and 30 (Emulator)
 - Pixel 3 API 30 (Emulator)
 - Windows Desktop running Windows 10
 - MacBook Pro running macOS Catalina
- Software Platforms / Technologies
 - Microsoft Azure SQL Database
 - Microsoft Azure DevOps Repository
 - Android Studio Arctic Fox
 - PhpStorm



Risks

- **Unsure How to Scale Health of Products**
 - Complexity of scaling the nutritional value of a grocery item
 - Get feedback from Meijer to determine scope of this feature
- **Access to Meijer Website API**
 - Tools and data from Meijer's Website API may not be relevant nor sufficient to what is necessary for this new application
 - Get access to any web API documentation to determine relevancy
- **Coordination of Android Testing for Physical and Emulator**
 - Android emulator has discrepancies between itself and physical device
 - Coordinate testing between android emulator and physical device



Questions?

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