

Project Plan

Intelligent Shopping List

The Capstone Experience

Team Meijer

Christina Harper

Lauren Antakli

Jacob Buckley

Alex Wziontka

Adam Pruim

Department of Computer Science and Engineering
Michigan State University

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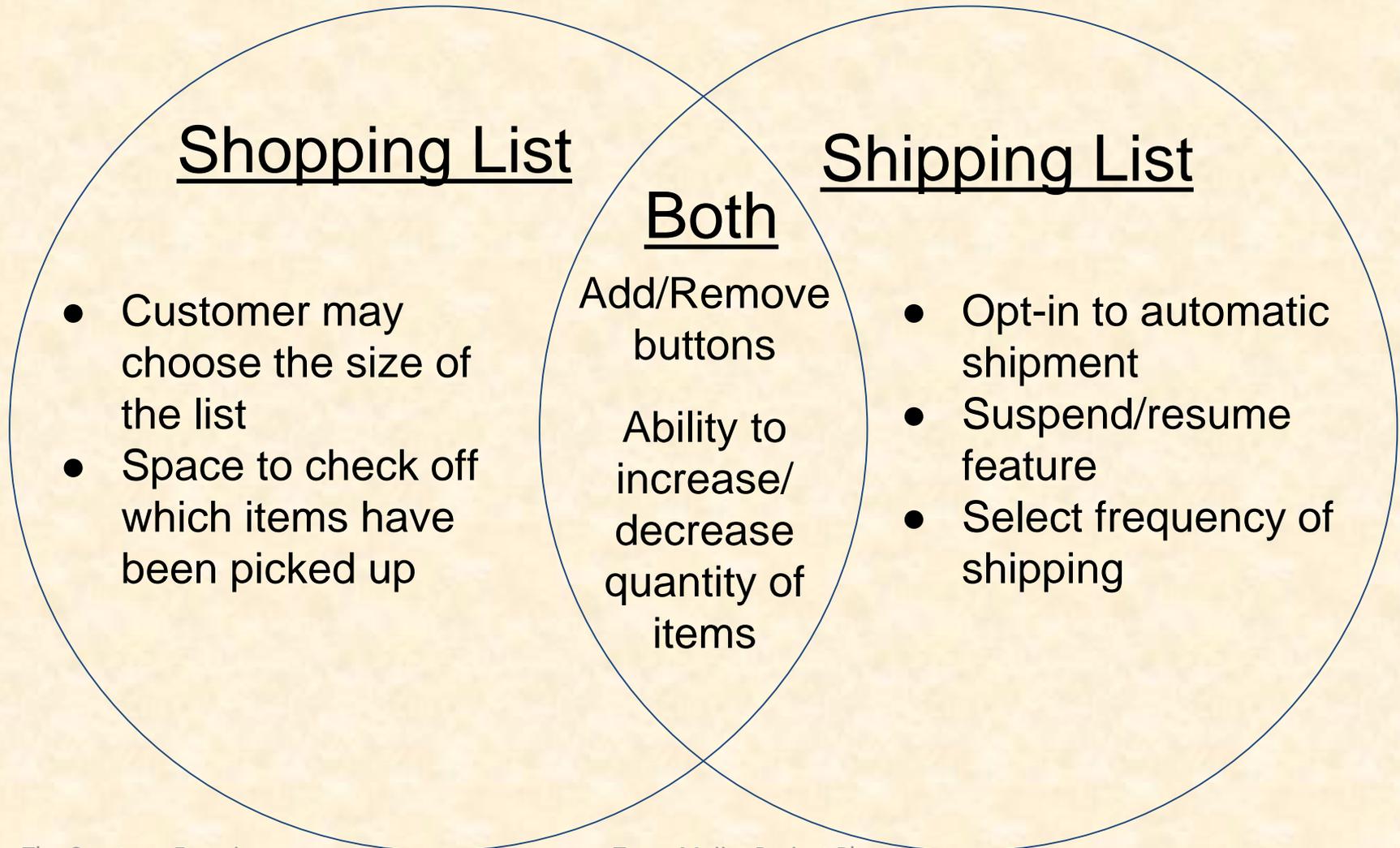


Functional Specifications

- Automatically generate a personal shopping list for the customer
 - Based on recent purchase data from mPerks
 - Customer will be able to edit the list as needed
 - Will contain a quantity recommendation for each item
 - Provides a way to mark which items have already been picked up
- Allow the customer to opt into a program that ships items to them directly
 - List will be generated similar to the shopping one
 - List will be editable
 - Suspend and resume features available on repeated orders



Design Specifications



Screen Mockup: Login and Home Screen

Login

mPerks mobile number

mPerks pin



My Shopping Lists:

Shopping list 1
Birthdays
Having guests over
BBQ stuff

My Shipping Lists:

Shipping list 1
Cleaning supplies



Screen Mockup: Shopping List

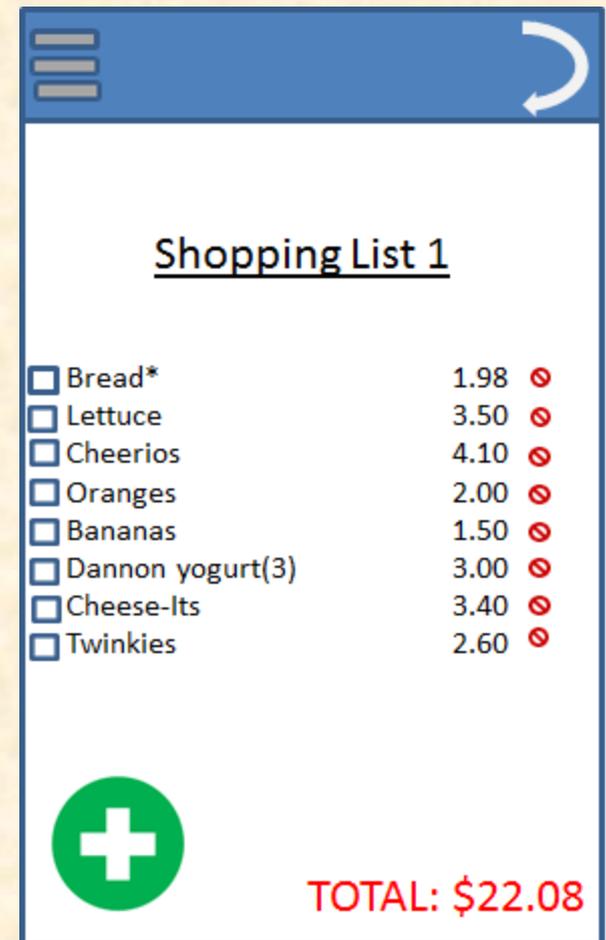


Shopping List 1

Bread*	1.98
Lettuce	3.50
Cheerios	4.10
Oranges	2.00
Bananas	1.50
Dannon yogurt(3)	3.00
Cheese-Its	3.40
Twinkies	2.60

 **TOTAL: \$22.08**

This screen mockup shows a shopping list titled "Shopping List 1". The list contains eight items with their respective prices. At the bottom left, there is a green circular icon with a white checkmark. At the bottom right, the total price is displayed as "TOTAL: \$22.08".



Shopping List 1

<input type="checkbox"/> Bread*	1.98	
<input type="checkbox"/> Lettuce	3.50	
<input type="checkbox"/> Cheerios	4.10	
<input type="checkbox"/> Oranges	2.00	
<input type="checkbox"/> Bananas	1.50	
<input type="checkbox"/> Dannon yogurt(3)	3.00	
<input type="checkbox"/> Cheese-Its	3.40	
<input type="checkbox"/> Twinkies	2.60	

 **TOTAL: \$22.08**

This screen mockup shows the same shopping list as the first screen, but with a blue header bar containing a white curved arrow icon on the right. Each item in the list has a small blue square checkbox to its left. At the bottom left, there is a green circular icon with a white plus sign. At the bottom right, the total price is displayed as "TOTAL: \$22.08".

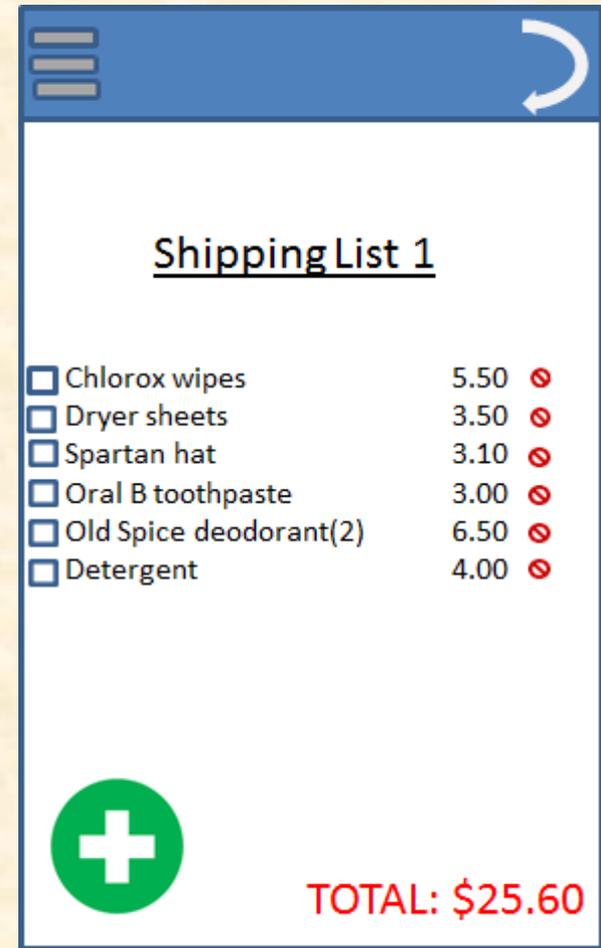


Screen Mockup: Shipping List



Shipping List 1

Chlorox wipes	5.50
Dryer sheets	3.50
Spartan hat	3.10
Oral B toothpaste	3.00
Old Spice deodorant(2)	6.50
Detergent	4.00



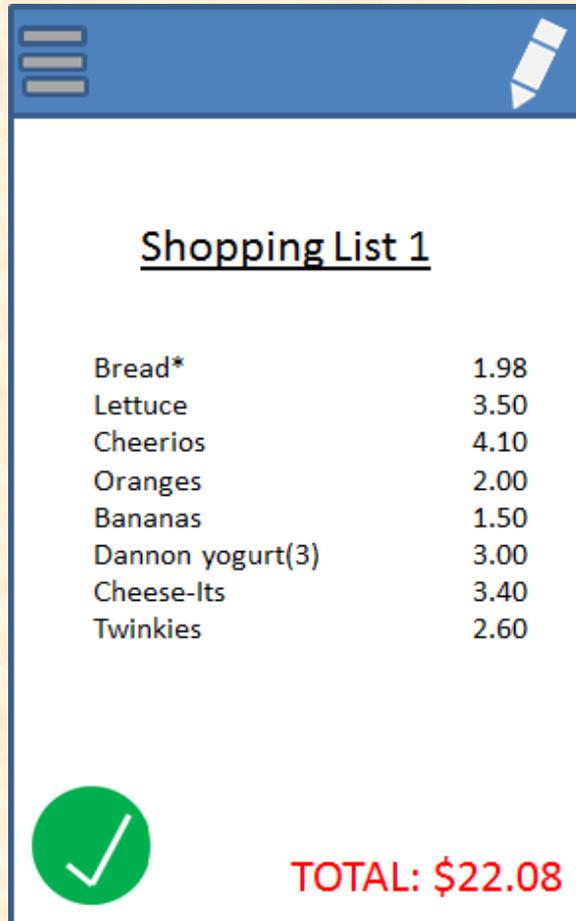
Shipping List 1

<input type="checkbox"/> Chlorox wipes	5.50	⊗
<input type="checkbox"/> Dryer sheets	3.50	⊗
<input type="checkbox"/> Spartan hat	3.10	⊗
<input type="checkbox"/> Oral B toothpaste	3.00	⊗
<input type="checkbox"/> Old Spice deodorant(2)	6.50	⊗
<input type="checkbox"/> Detergent	4.00	⊗

TOTAL: \$25.60



Screen Mockup: Side menu



Shopping List 1

Bread*	1.98
Lettuce	3.50
Cheerios	4.10
Oranges	2.00
Bananas	1.50
Dannon yogurt(3)	3.00
Cheese-Its	3.40
Twinkies	2.60

 **TOTAL: \$22.08**



Shopping List 1

Manage my lists	
Find coupons	
Sales this week	
Meijer services	1.98
My mPerks	3.50
	4.10
	2.00
	1.50
	3.00
	3.40
	2.60

TOTAL: \$22.08



Screen Mockup: Order History

Order History

Name	Email	Address	Date	
User 1	user1@gmail.com	1234 Road Ln	9/15/16	<input type="button" value="View Order"/>
User 2	user2@gmail.com	1234 Road Ln	9/15/16	<input type="button" value="View Order"/>
User 3	user3@gmail.com	1234 Road Ln	9/15/16	<input type="button" value="View Order"/>
User 4	user4@gmail.com	1234 Road Ln	9/15/16	<input type="button" value="View Order"/>
User 5	user5@gmail.com	1234 Road Ln	9/15/16	<input type="button" value="View Order"/>



Screen Mockup: Order Details

Order Details

Name

Email

Items

Shipping Address

Order Date

Payment

Details

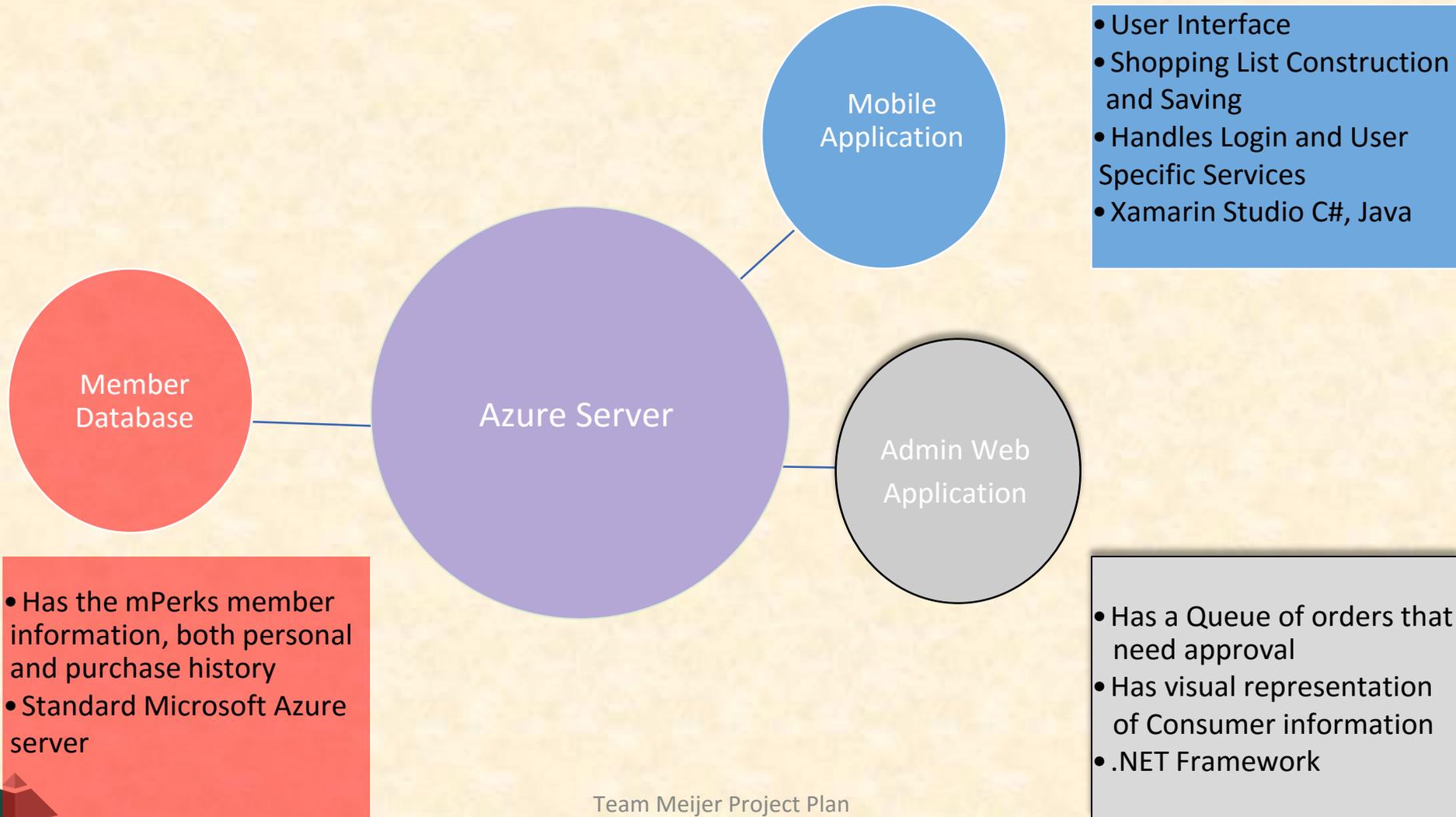


Technical Specifications

- Azure Web Application Server
 - Host web app
 - API endpoints to expose database to web and mobile applications
- Microsoft SQL database server
 - Mocked and sample data based on Meijer's production database
- .NET web application
- Xamarin, iOS mobile application



System Architecture



System Components

- Hardware Platforms
 - iPhone
 - Android
- Software Platforms / Technologies
 - Azure Web Server, Database
 - Xamarin
 - Visual Studio Team Services
 - C#, .NET, SQL



Testing

- Creating mock data to store on our server
- Test drawing information from data server to construct shopping list on the application and returning that information to the server
- Ensuring the data is stored and maintained properly and securely
- Creating and saving Shopping Lists for different use cases and when the application is closed



Risks

Generating the shopping list

- How can we create a list that is relevant and helpful?
- Mitigation: Brainstorming ideas on what the most effective solution is
- Status: Met with Meijer and decided that the customer's most frequently bought items during the current season will be displayed on the list

Learning iOS

- Group members have little experience programming iOS applications
- Mitigation: Using resources including internet tutorials and classmates
- Status: Team members have begun researching the basics in iOS applications

Access to Meijer's information

- Meijer is unable to provide us with access to a lot of their databases
- Mitigation: Begin working and keep in touch about other info we may need
- Status: A store delta with product information and also some dummy mPerks accounts are in the works

