Project Plan
In-Store Price Compare
The Capstone Experience

Team Meijer
Brandon Bielicki
Anthony Laurain
Spencer Ottarson
Zandra Russell
Brian Wyss

Department of Computer Science and Engineering
Michigan State University
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Functional Specifications

• Improves Meijer customer experience
  ▪ Easily compare prices to other stores

• Allows Meijer to better understand what customers are looking for
  ▪ Analyze scanning habits of customers
  ▪ Give insight into competitor pricing
Design Specifications

• Mobile Application
  ▪ Scans barcode
  ▪ Compares Meijer price to other third party store prices
  ▪ Potentially generate coupons to make up for price difference
  ▪ Store results on server

• Web Interface
  ▪ Analyze what items are scanned often
  ▪ Price differences between Meijer and competition
  ▪ Graphs, tables visualizing various data
Screen Mockup: Mobile Application

- **Email address or mPerks Phone Number**
- **Password**
- **Sign in**
- **Skip log in and scan**

- **Hello, Customer!**
- **Scan**
- **Log Out**
Screen Mockup: Mobile Application

Align barcode edges with arrows

<table>
<thead>
<tr>
<th>Product Name</th>
<th>COMPETITOR PRICES</th>
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<tbody>
<tr>
<td>#1</td>
<td>$###.##</td>
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<td>#2</td>
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<td>#3</td>
<td>$###.##</td>
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Screen Mockup: Web Login

Username: 
Password: 
Login
## Screen Mockup: Web Data Display

Meijer

**Location:** Okemos - 2055 W Grand River, Okemos, MI

Logged in as __________

Sort by: Product Name

<table>
<thead>
<tr>
<th>Product Name</th>
<th>Location</th>
<th>Time</th>
<th>UPC</th>
<th>Department</th>
<th>Meijer Price</th>
<th>Walmart Price</th>
<th>Best Buy Price</th>
<th>Target Price</th>
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Submit
Technical Specifications

• Use Xamarin to develop iOS (and possibly Android) app
• SQL Server hosted on Microsoft Azure
• Web app will use HTML5/CSS, ASP.net
• 3rd party APIs to get prices from 3rd party vendors
System Components

• Hardware Platforms
  ▪ Apple Mobile Device
  ▪ Server running Microsoft SQL Server 2012

• Software Platforms / Technologies
  ▪ Xamarin
  ▪ Windows Azure
  ▪ Microsoft SQL Server 2012
  ▪ GitHub – Source control
  ▪ HTML5, ASP.net
Testing

• 3rd party stores
  ▪ Test that APIs can accurately return price given UPCs

• Mobile App
  ▪ Scans items, displays all necessary prices

• Server
  ▪ Create mock data to test requests to server

• Website
  ▪ Login, different ways to display data
Risks

• iOS Development
• Connect app to database
• Comparing prices with third party stores
• Microsoft Azure