MICHIGAN STATE UNIVERSITY

Alpha Presentation

mFuel Application Development and Dispenser Integration

The Capstone Experience

Team Meijer

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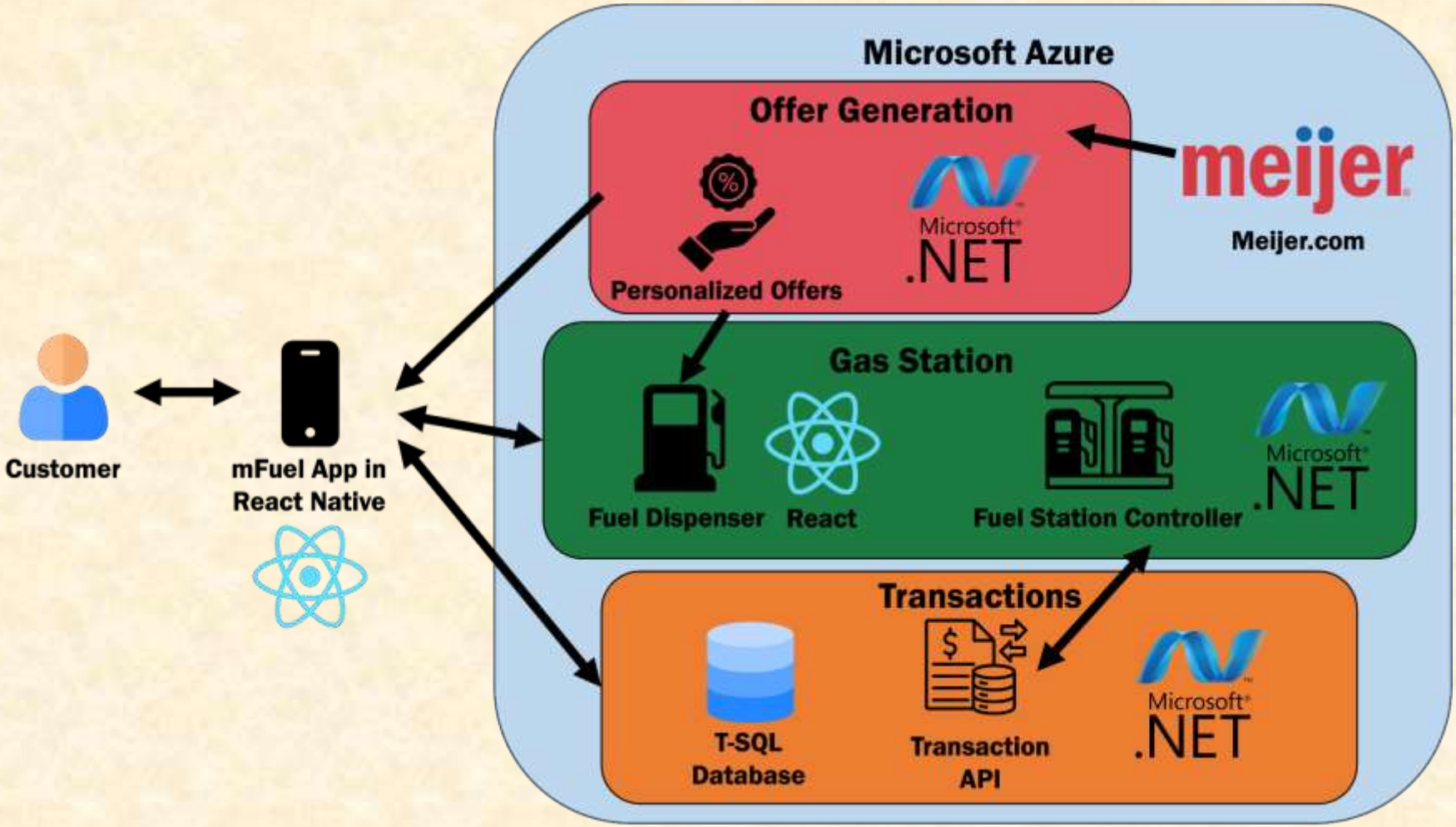
Spring 2026

From Students…
…to Professionals

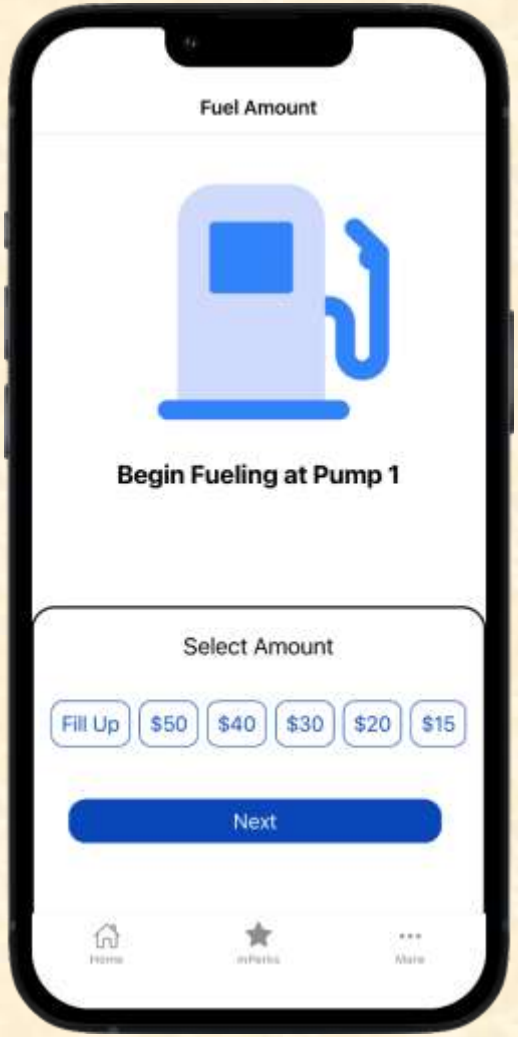
Project Overview

- Mobile fuel payment at Meijer gas stations
- Integrated with existing Meijer rewards
- Personalized in-store offers
- Add items from express location directly to the transaction

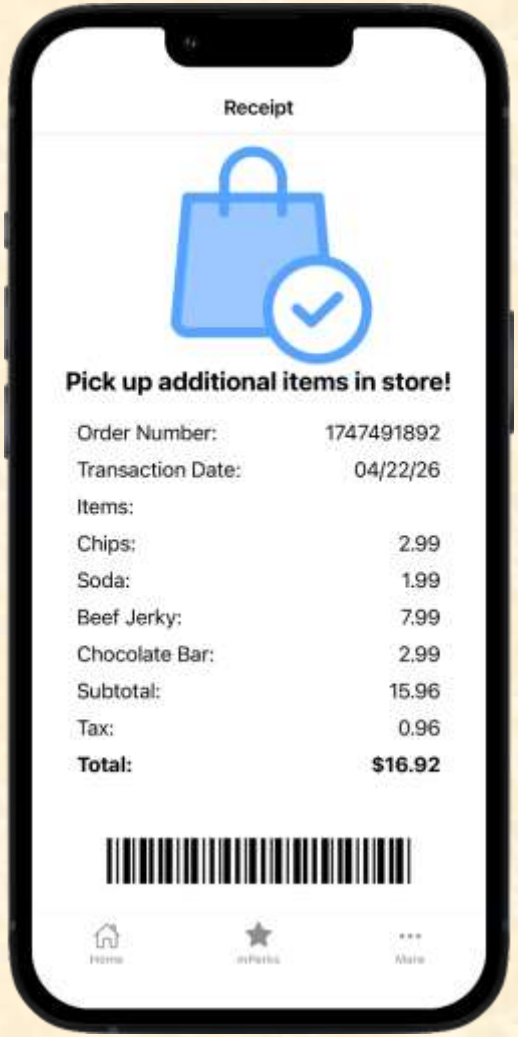
System Architecture



Fueling Amount Selection



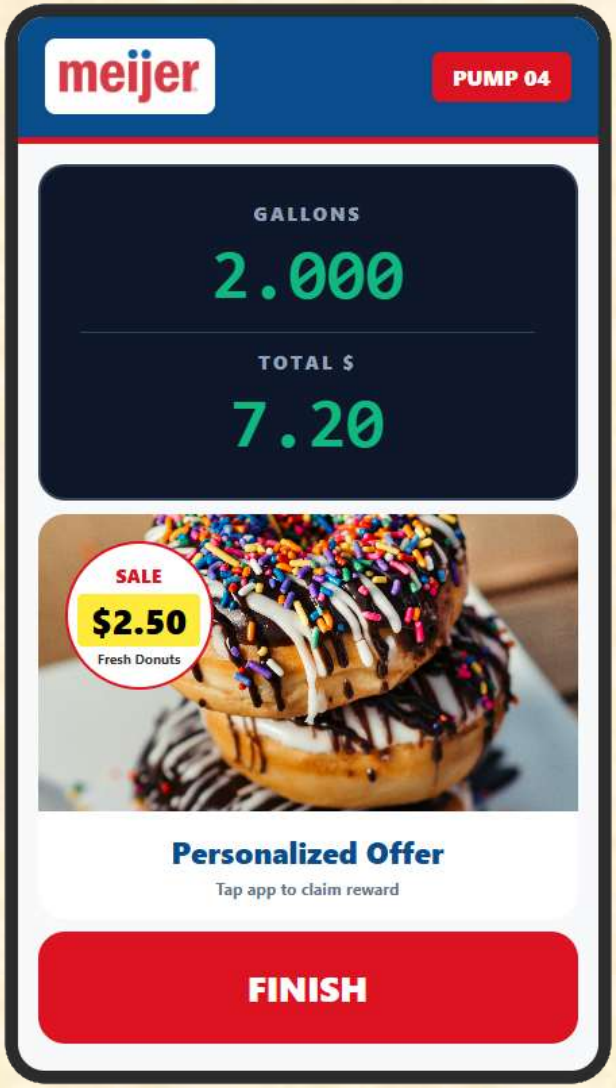
Receipt


Receipt
Pick up additional items in store!
Order Number: 1747491892
Transaction Date: 04/22/26
Items:
Chips: 2.99
Soda: 1.99
Beef Jerky: 7.99
Chocolate Bar: 2.99
Subtotal: 15.96
Tax: 0.96
Total: $16.92

Initial Dispenser Screen



Fueling Dispenser



What's left to do?

- Finalize microservice communication
- Ensure transactions are PCI compliant
- Complete recommendation-engine front end integration
- Finish dispenser front-end integration with backend services
- Add in POS(Point of Sale) integration throughout the application
- UI/UX refinement based on sponsor feedback

Questions?

