



Project Plan Presentation

Digital Transformation of Member Data

The Capstone Experience

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

Project Sponsor Overview



- Michigan State University Federal Credit Union (MSUFCU) has been the banking service of Michigan State University since 1937
- MSUFCU serves over 331,000 members and has nearly \$7 billion in assets
- MSUFCU supports the surrounding communities through charity events, volunteer work, and other community programs



Project Functional Specifications

- The MSUFCU app will analyze transaction data and suggest Local Loyalty partners based on user shopping habits
- These are alternative stores to shop at, offering discounts and rewards to MSUFCU members
- MSUFCU members will be able to transfer funds in-network easier by enhancing M2M systems
 - NFC tap-to-pay
 - Username handles
 - QR codes

Project Design Specifications

- Menu within app that contains offers for businesses in the Local Loyalty Program, organized by distance and usefulness
- Member lookup feature using usernames and scannable QR codes integrated into existing M2M interface
- Push Notifications for Local Loyalty Program suggestions.
- Prototypes for both iOS and Android.

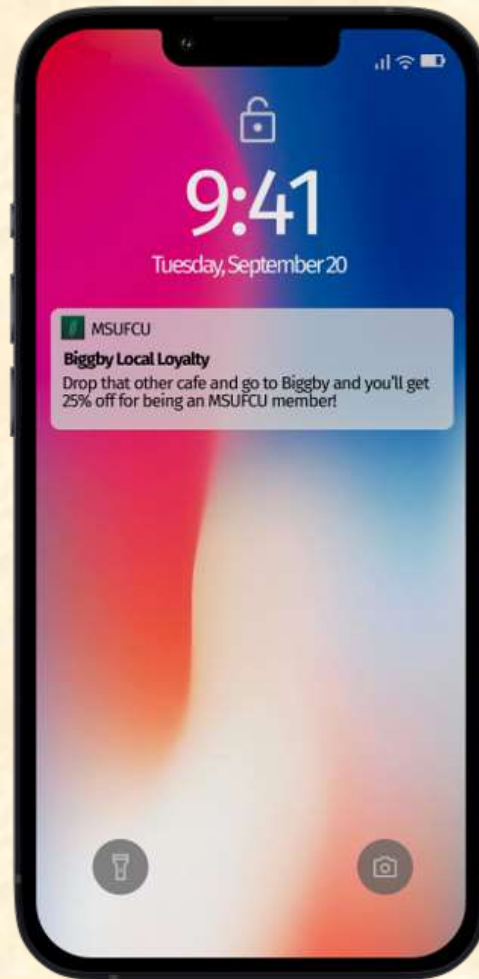
Screen Mockup: Local Loyalty List



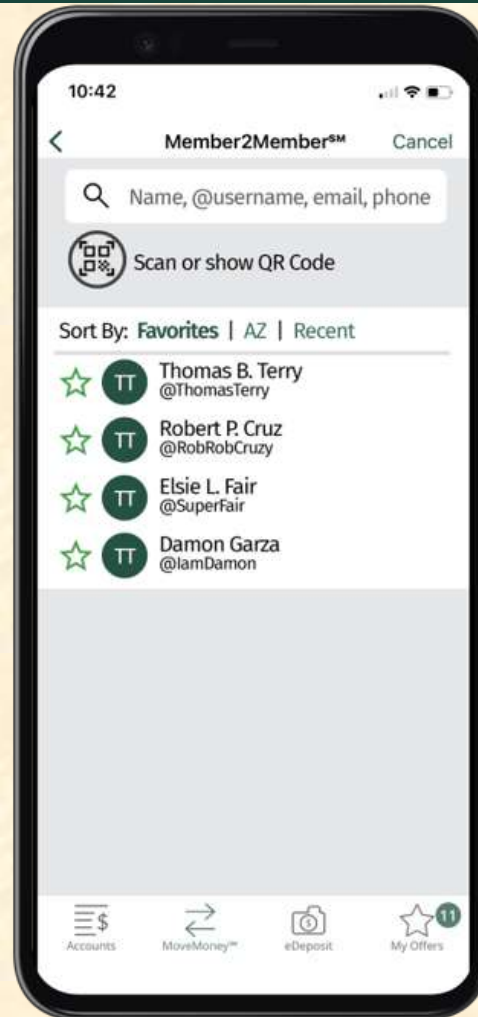
Screen Mockup: QR Code for M2M



Screen Mockup: Notification for Local Loyalty



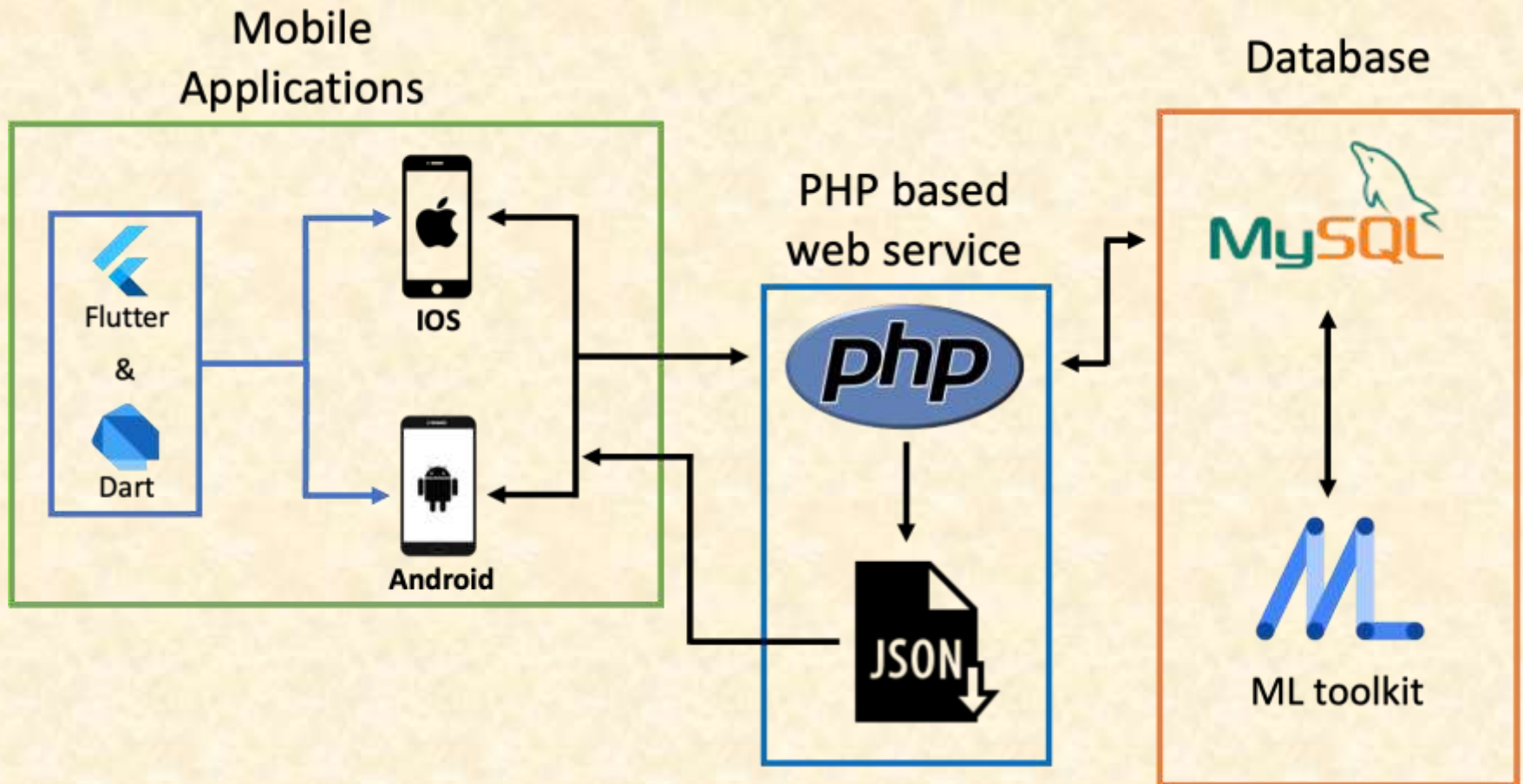
Screen Mockup: New M2M Payment Screen



Project Technical Specifications

- Give MSUFCU members suggestions on local discounts based on the results of text analysis and their spending habits
- Expand P2P(peer-to-peer) payment features by allowing MSUFCU users to send and receive money through QR code and NFC technology securely

Project System Architecture



Project System Components

- Hardware Platforms
 - Android mobile devices
 - IOS mobile devices
- Software Platforms / Technologies
 - Flutter SDK 3.3.2
 - Dart
 - MySQL
 - PHP
 - ML Kit



Project Risks

- Adding platform-specific features to Flutter applications
 - To solve this, we can build the bulk of our applications using Flutter, then add platform-specific features using Swift and Kotlin afterwards
- Displaying region-specific Local Loyalty offers
 - Organize partners by region, and serve offers based on user location data
- Recommending Local Loyalty partners based on products purchased
 - Analyze products sold by non-partnered businesses and determine if partnered businesses sell similar products
- Communicating between devices using NFC
 - Investigate how NFC works and how to securely transfer money between members using NFC



Questions?

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