

MICHIGAN STATE

U N I V E R S I T Y

Project Plan

Windows 8 App for Smart Appliances

The Capstone Experience

Team Whirlpool

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

Project Overview

- Multi-platform Windows 8 application
- Remotely control Whirlpool Smart Appliances
- Monitor appliance status and condition
- Report to users energy information and usage history



Functional Specifications

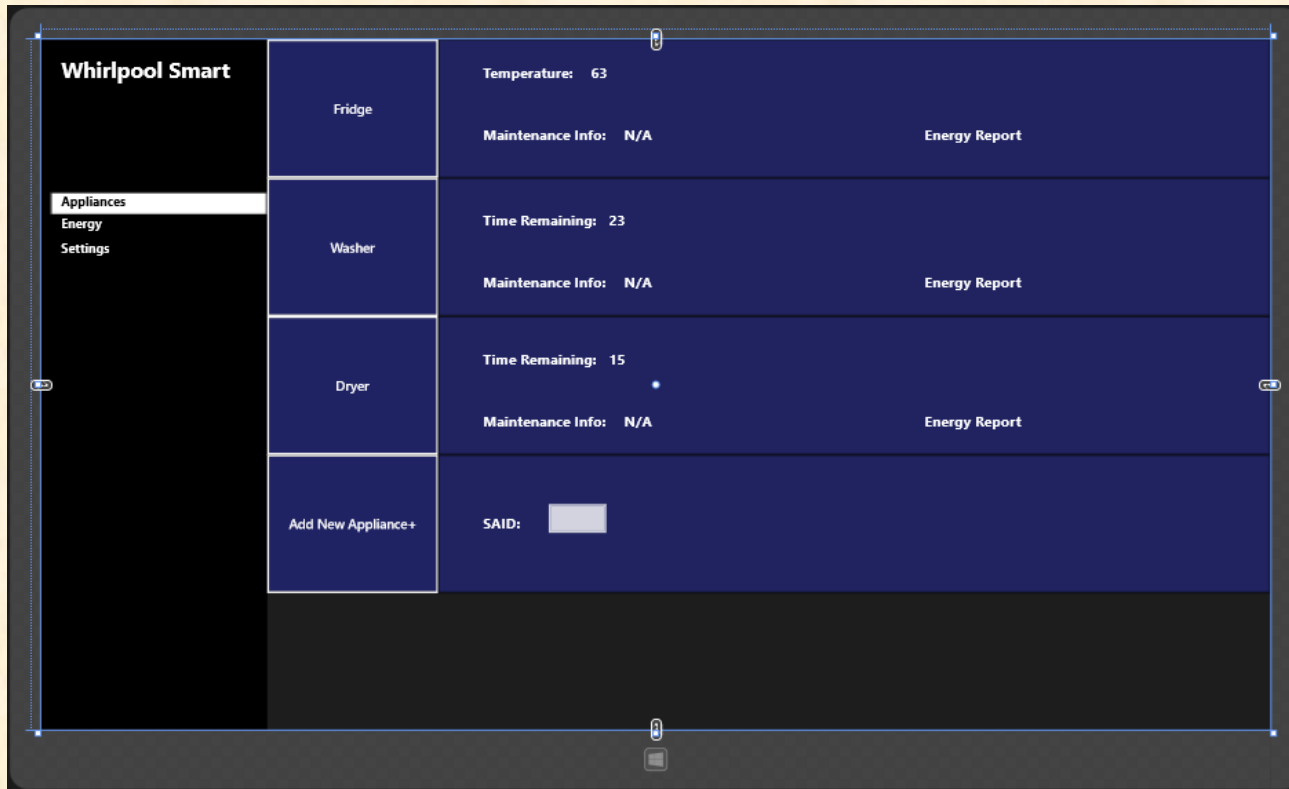
- Register Appliances
- Appliance Analytics
- Specific Appliance Info (Washer, Dryer, etc.)
- Cortana Integration
- Live Tile Integration



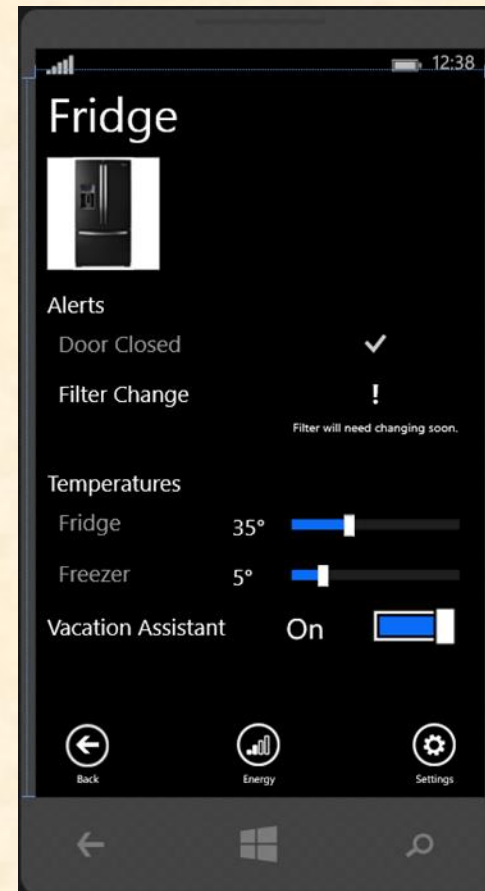
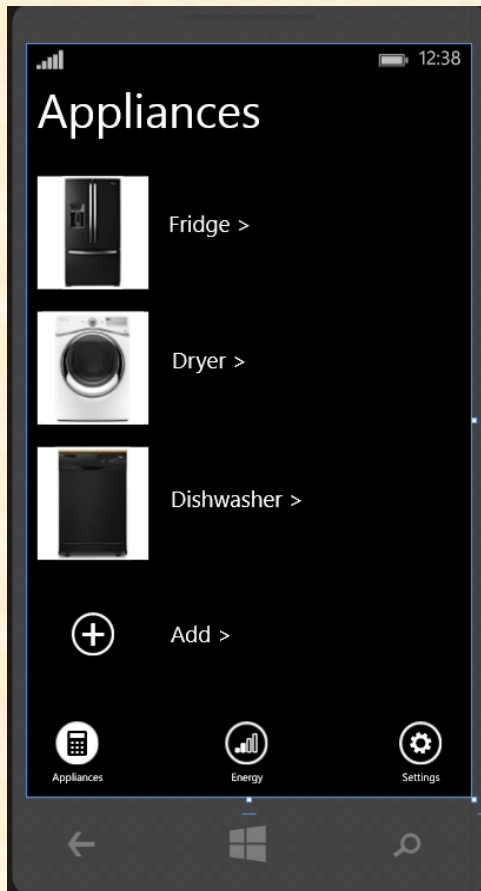
Design Specifications

- Appliances
 - Appliance Specific Page (planned for phone only)
- Energy
 - Appliance Specific Energy Report
- Settings

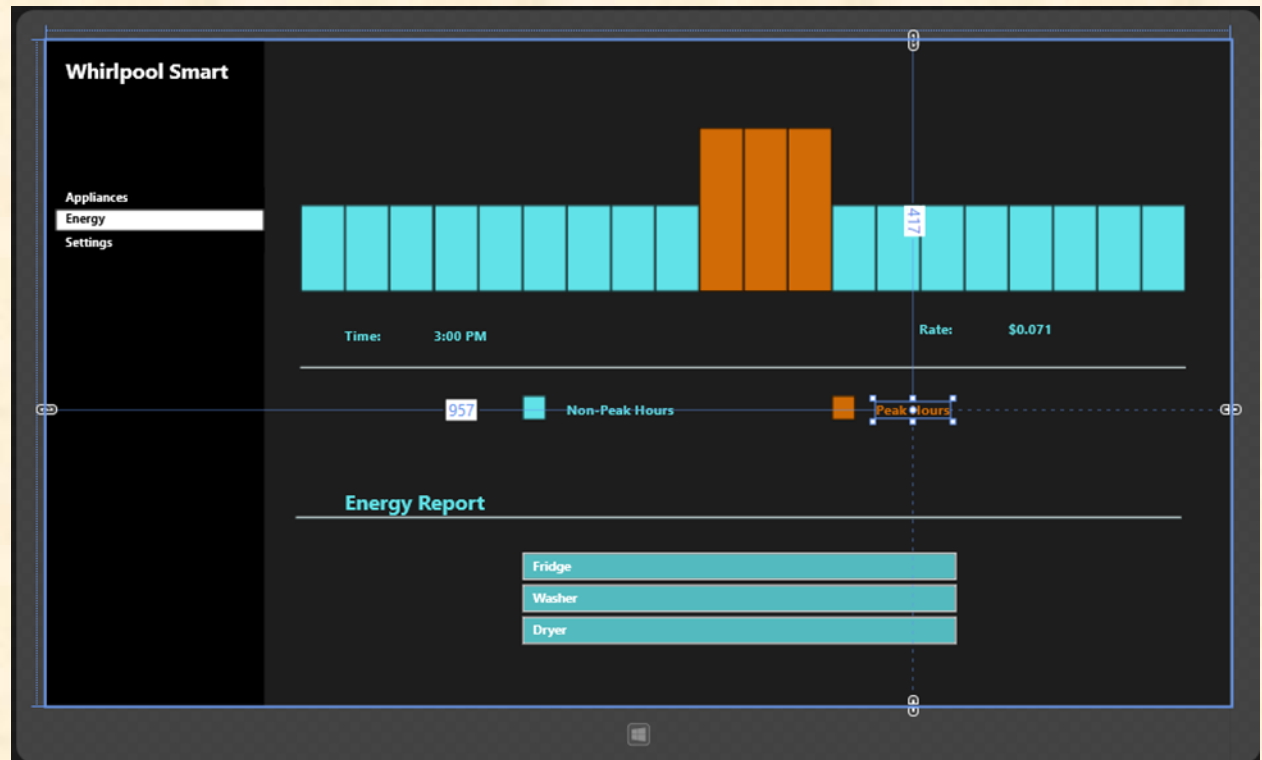
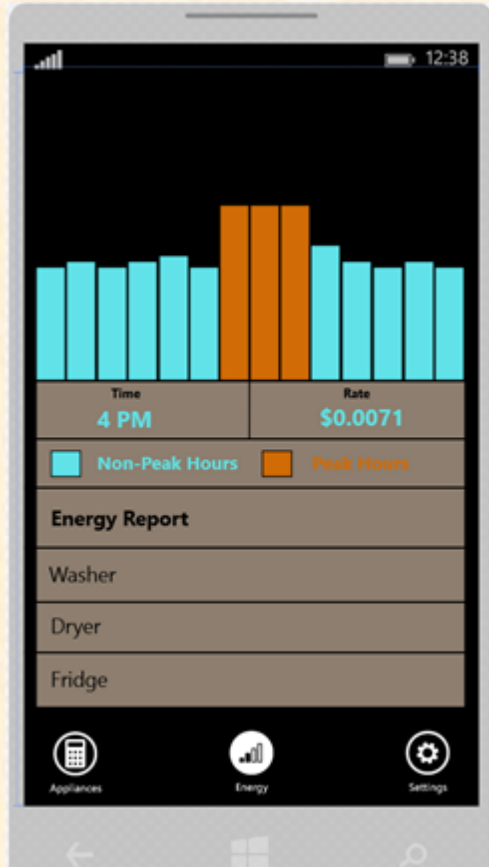
Screen Mockup: Appliances Hub Page



Screen Mockup: Specific Appliance Page



Screen Mockup: Energy Main Page

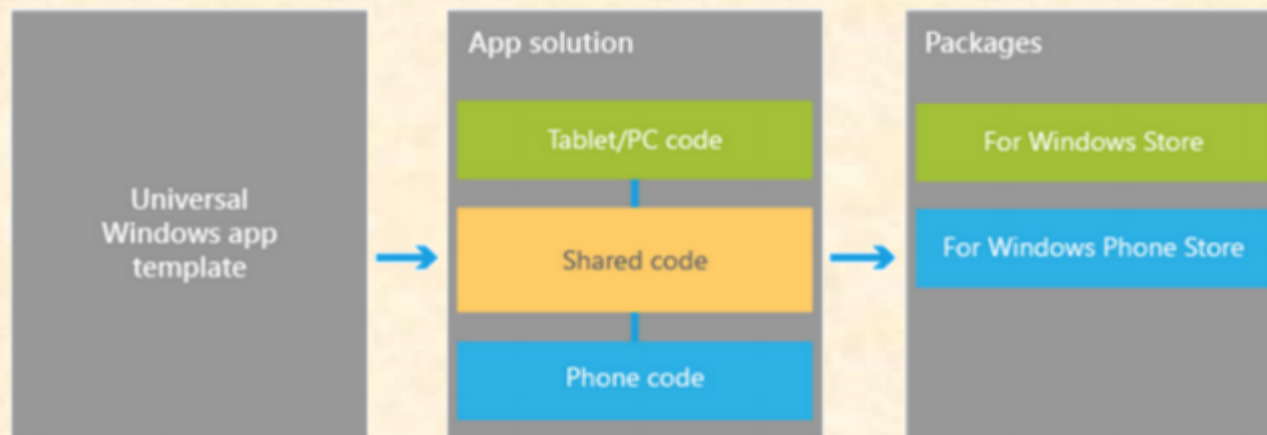


Screen Mockup: Settings Main Page

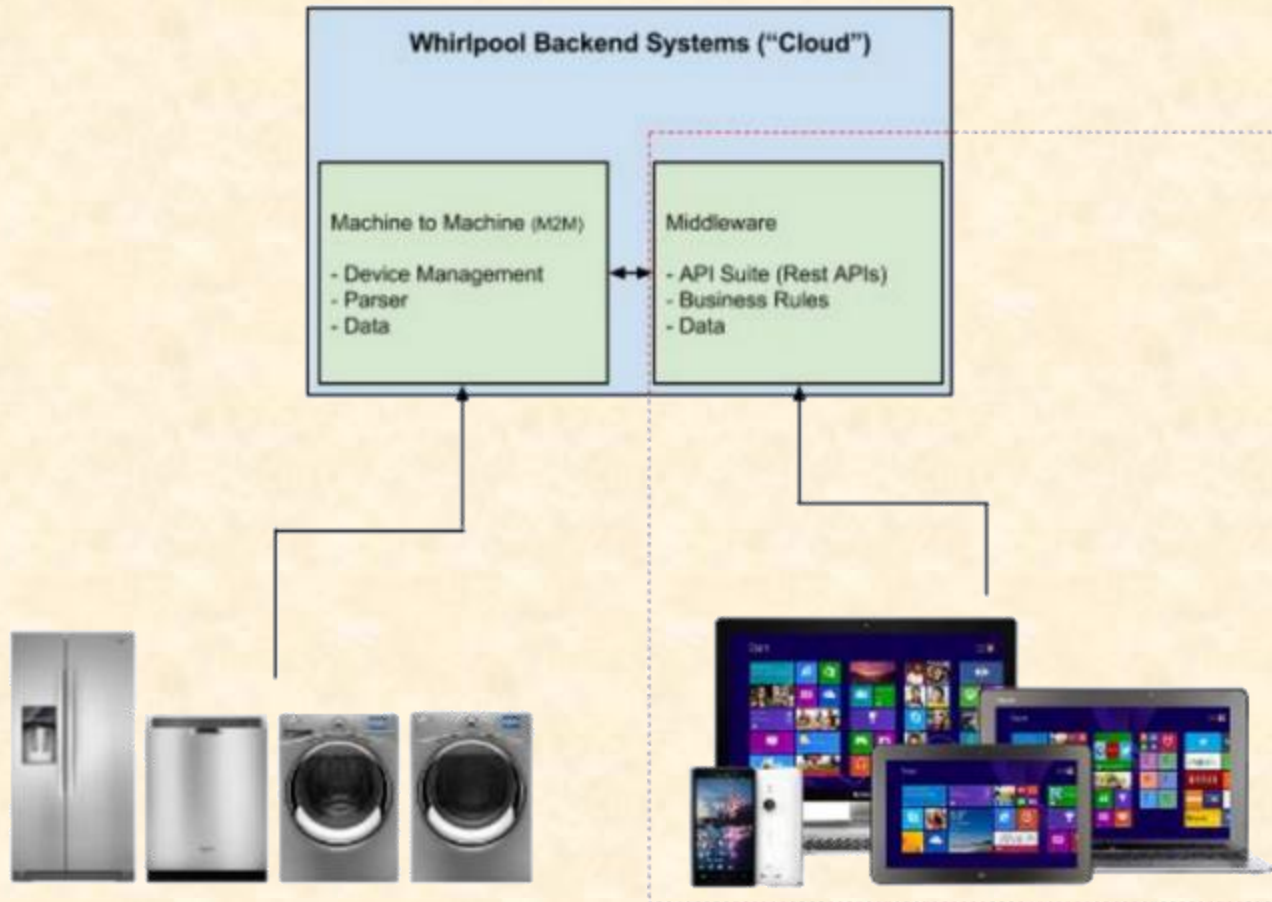


Technical Specifications

- Universal Application Framework
- Voice Command Technology
- Development Environment



System Architecture



System Components

- Hardware Platforms
 - Windows Phone
 - Windows Tablet
 - Desktop/Laptop Computers
- Software Platforms / Technologies
 - Windows 8+
 - Mobile and Desktop



Testing

- Develop quickly and test often
- Unit test code fragments
- Initial testing using lab refrigerator
- Remote testing with other appliances



Risks

- Cross Platform Application
- Publishing to the Windows Store
- Cortana
- Memory Management

