Smart Shopping with Big Brother (c)

Team 01
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Overview

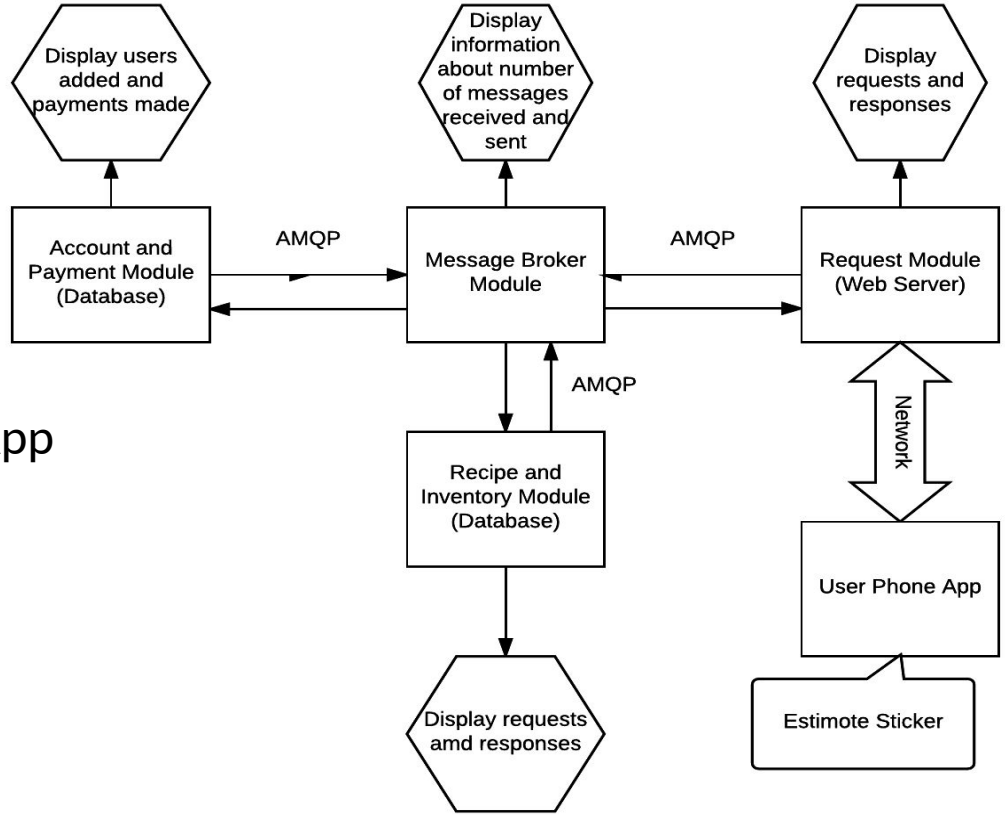
- Concept of Operations
- System Diagram
- Communication Mechanisms
- Testable Requirements
- Team Roles
- Schedule

Concept of Operations

- Purpose: Harness technology to make grocery shopping and meal planning easier
- Goal: Provide user with list of recipes for food item user picks up
    - Show users what other foods to obtain
    - Make purchase of food simple through app

System Diagram

- Raspberry Pi Modules
  - Request Module
  - Message Broker Module
  - Recipe and Inventory Module
  - Account and Payment Module
- Additional Module: Phone App



Network Communications

- RabbitMQ between Raspberry Pi’s
- Internet/Local Network between Phone and Requests Module
- Must secure all communication with account or payment information

Testable Requirements

- Each module must be able to communicate with each other.
- The user must be able to login and use the iOS mobile application with a personalized account from the iPhone.
- The iOS mobile application must be able to recognize an Estimote Beacon Sticker, collect information from it, forward the collected information to and receive response from the Web Server, and display the information sent by the Web Server

Testable Requirements Cont.

- Database must contain information about the current stock of the store and recipes
- The system should be able to query the database for the requested information
- Database must also contain consumer information

Team Roles: Sarah

Estimote Beacon Sticker Detection & iOS App Interface

	3/31 - 4/2	4/3 - 4/9	4/10 - 4/17	4/18 - 4/24	4/25 - 5/2	5/3 - 5/7
collect data from Sticker						
Send to and receive Beacon Sticker information from the Web Server						
Display Web Server info						
Implement GUI on the iOS app						

Team Roles: Riley

Account and Payment Management

	3/31 - 4/2	4/3 - 4/9	4/10 - 4/17	4/18 - 4/24
Create MongoDB Database w/ correct collections and fields				
Create interface to turn a JSON message into a query or an entry				
Communicate with the message broker				
Secure storage method of user information				

Team Roles: Zach

MongoDB and Recipe API

	3/31 - 4/2	4/3 - 4/9	4/10 - 4/17	4/18 - 4/24
Setting up MongoDB on a Raspberry Pi				
Integrating the recipe Api with MongoDB				
Have MongoDB communicate with the message broker				
Integrate MongoDB with the rest of the system				

Team Roles: Anthony

Web Server

	3/31 - 4/2	4/3 - 4/9	4/10 - 4/17	4/18 - 4/24
Create RESTful Web Server				
Add Request Types				
Send Requests to Modules				
Receive Response from Modules				
Convert Response				
Send Response to Client				

Summary

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Questions?