Network Inventory Application

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Network Inventory Application

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Final presentation for CSCI480: Senior Project.

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NETWORK INVENTORY APPLICATION
MATTHEW BEGLEY AND AARON RESCH
PROJECT OVERVIEW

• Project Objectives & Description
• System Technical Overview
• Engineering Process Methodology
• Engineering Test Methodology
• Engineering Key Work-Products
• Project Key Metrics
• Project Schedule/Key Milestones
• System Demonstration
• Academic Key Knowledge Acquired/Applied
• Strategic Value
• Questions
• Lessons Learned
PROJECT OBJECTIVES & DESCRIPTION

• Objective
  • Create an inventory management application for Android
  • View all inventory
  • Search for inventory items
  • Update inventory levels
  • Simple, easy to use interface

• Description
  • MySQL database to store inventory
  • Queries database to check inventory levels
  • Updates database when inventory is added or removed
SYSTEM TECHNICAL OVERVIEW

• XML files for User Interface
• Java files that interact with XML files and call PHP files
• PHP files stored on the internet that communicate with database
ENGINEERING PROCESS METHODOLOGY

• Agile model
  • Built template
  • Defined functionality
  • Developed functionality
  • Tested functionality
  • Repeat
ENGINEERING TEST METHODOLOGY

- Design purpose and functionality
- Backup current progress
- Implement additional code
- Test for compile errors
- Test functionality
- Test for logical errors
ENGINEERING KEY WORK-PRODUCTS

• Android Studio
PROJECT KEY METRICS

• Does the application function?
  • Does it compile?
  • Does it crash?

• Does it meet the project requirements?
  • Does it accomplish the goal?
  • Are there logical errors?

• User proof
  • Can invalid data be entered?
  • Can the user make it crash?
PROJECT SCHEDULE/KEY MILESTONES

• Executive Summary
  • 1/19/15

• Requirements
  • 2/2/15

• Prototype
  • 2/24/15

• Functional Application
  • 3/8/15

• Completed Application
  • 4/11/15
SYSTEM DEMONSTRATION
ACADEMIC KEY KNOWLEDGE ACQUIRED/APPLIED

• Coding
  • Java
  • PHP
  • XML
• Networking
  • Communicating with remote server
• Databases
  • MySQL
• Software Engineering
  • Agile model
STRATEGIC VALUE

• Allows multiple users to view and update inventory
  • Reduces time spent physically checking inventory
  • Increases productivity
• Expandability
  • Email alerts
  • Project requirements
  • Project history
QUESTIONS
LESSONS LEARNED

- **Communication with Database**
  - Attempted using JBDC to open remote MySQL database
  - Attempted using JSON feed
  - Used http: connection to PHP scripts on the web
    - Internet connection could not be done in main thread
    - Created worker threads to handle internet I/O

- **Limitations and quirks of Android Studio**
  - Required numerous tutorials and web queries
  - Many built in features did not function
    - Required work arounds