CS 242 Final Project Proposal

Package Processing
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1. Abstract

1.1. Project Purpose
The purpose of this project is to make the process of packaging packages simpler, cheaper, and paperless for MechSE Shipping and Receiving.

1.2. Background/Motivation
I currently work in the Shipping and Receiving office at the Mechanical Engineering Building on campus. I asked my manager for a problem he has in the office that can be solved with technology, and he replied with the process to process packages. When a package arrives at the office, we must fill out a log book with the recipient's name, the date, the name of the shipping company, and the number of packages processed. To notify a recipient of their package arrival, we must email them. When a recipient picks up their package, they must sign. This takes a good amount of time to do, especially when a bunch of packages come in. Also, the office must buy log books fairly often, so the cost can add up. I haven't done anything like this before.

2. Technical Specifications

2.1. **Platform:** Android App

2.2. **Programming Languages:** Java

2.3. **Stylistic Conventions:** use Java Styling Conventions

2.4. **SDK:** Android SDK

2.5. **IDE:** Android Studio

2.6. **Tools/Interfaces:** Android Emulator

2.7. **Target Audience:** Shipping and Receiving Offices, specifically MechSE Shipping & Receiving

3. Functional Specifications

3.1. Features

- Process a package once it arrives and store that data
- Automated email notification for a processed package
- Allow people to sign and pick up their package
- Search for a package by recipient name, date, processing number, etc.

3.2. Scope of project
I only have experience working in the MechSE Shipping & Receiving office, so this app will be tailored to that. It might not be as useful for other shipping and receiving offices.

4. Timeline:

4.1.   Week 1

    4.1.1.   Work on User Interface

- create home page
- create processing page
- create sign out page
- create search page

    4.1.2.   Have a functional navigation bar

    4.1.3.   Be able to switch through pages using fragments

    4.1.4.   Create an action bar with useful information

4.2.   Week 2

    4.2.1.   Make any necessary adjustments to UI

    4.2.2.   Work on processing page

- Name, Date, Firm, Number of Packages form
- Create a Package object with ID number and store that data

4.3.   Week 3

    4.3.1.   Work on signing for packages

- Search for a package based on name or package ID
- Open up a page for package pick up
- Have a field for the recipient to enter name, ID, and date
- Update package info in stored data

4.4.   Week 4

    4.4.1.   Work on search page

- Display 10 most recently processed packages
- Search for packages based on name, date, or package ID
- Can pull search through all packages in stored data

5.   **Future Enhancements**
I want to figure out how to automate email notifications. Also, I would like the MechSE Shipping and Receiving office to test it out. If there are improvements that can be made based on their feedback, I would do what I can. However, if this app isn't too successful, their current process works so they could revert to that.