1. Introduction

- Professional movers are expensive.
- Characteristics of a move
    - Cost estimation
    - Keeping track of everything
    - Efficient space usage
    - Packing
    - Fragile items
    - Heavy items
    - Distance
    - Time frame
- Truck Loading takes careful consideration
- There are so many unknowns!

1.1. Purpose

- Software based solution
- Solution Characteristics
- Load Plan Generation
- Keep track of box throughout move
- Tips and tricks
- Cost/time optimization
- Goals and Objectives

1.2. Scope

- Measuring an item
- 3d model generation
- Box locator
- Load plan
- Trip estimation
- Packing tips
- Expert articles
- Move feedback
- Case Study
  [Lab 1 Section 3]
    - Identify the actors involved
    - Give them names
    - Consider moving case study paragraph here

1.3. Definitions, Acronyms, and Abbreviations

- Paste from lab one.

1.4. References

- Paste from lab one.
- Add reference to lab 1 for each individual

1.5. Overview

- Listing of what's in the paper.

2. General Description
    - Overview paragraph here

2.1. Prototype Architecture (Hardware/Software)

- Key components
    - Ubuntu 16.04 Virtual Machine
    - Docker
        - Apache tomcat
        - CXF for web API
        - MySQL
    - UI
        - Android app interface
        - Test harness interface
- Provide and describe the prototype MFCD [Insert MFCD here]
- Algorithms and user interfaces
    - Flush this out some more [TODO]
    - Load Plan Algorithm
    - …

2.2. Prototype Features and Capabilities

- Discuss features
- Insert prototype features table
- Describe Algorithms and user interfaces here
    - Might include some diagrams like site map

2.3. Prototype Development Challenges

- Test Harness changing values in the database
- Changing truck sizes
- Changing move inventory
- Prioritizing search results for expert tips
- Multiple trips
- Dealing with edge cases

2.4. External Interfaces

- Interfaces:
    - Networking
        - TCP/IP
        - DNS
        - DHCP
    - Software
        - SSL
    - Hardware
        - Smartphone with camera
        - Install of apk
- Talk about the simulated data from the vendor synchronization

3. Specification Requirements

3.1. Functional Requirements
    3.1.1. Android Application
        3.1.1.1. Login (Byron)
        3.1.1.2. Registration (Byron)
        3.1.1.3. Reset Password (Byron)
        3.1.1.4. Box Locator (Greg)
        3.1.1.5. Furniture/Item Measurement (Jason)
        3.1.1.6. Load Plan (Byron)
        3.1.1.7. Logistics Planning (Greg)
        3.1.1.8. Move Inventory (Chris)
        3.1.1.9. Authentication (Byron)
        3.1.1.10. Expert Tips (Lance)
        3.1.1.11. Expert Articles (Paul/Lance)
        3.1.1.12. Feedback (Paul)
    3.1.2. Test Harness
        3.1.2.1. Sample Move Inventory (Chris)
        3.1.2.2. New Truck Size (Greg)
    3.1.3. Algorithms
        3.1.3.1. Box Measurements (Jason)
        3.1.3.2. Load Plan (Jason)
        3.1.3.3. 3D model generation (Jason)
        3.1.3.4. Expert Tips (Lance)
    3.1.4. Database (Lance)
    3.1.5. Web API
        3.1.5.1. Authentication (Byron)
        3.1.5.2. Expert Tips Indexer (Paul)
        3.1.5.3. Services (Paul)
3.2. Performance Requirements
    3.2.1. App Load Time (Paul)
    3.2.2. General Action Response Time (Lance)
    3.2.3. Load Plan Generation (Jason)
    3.2.4. Android Compatibility (Lance)
3.3. Assumptions and Constraints
    3.3.1. Items Larger than Truck (Chris)
    3.3.2. Extremely Heavy Objects (Chris)
    3.3.3. Dimensions of a Truck
    3.3.4. Rotation of items
    3.3.5. Couches and how they go in the truck (jk)
    3.3.6. Will have fine china (jk)
3.4. Non-Functional Requirements
    3.4.1. Server Setup (Greg)