Case Study: Blueprints Inventory in a Nutshell

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| Introduction | Blueprints is a 501(c)(3) not-for-profit medical surplus recovery organization (MSRO) that provides sustainable solutions to inefficient health care resource distribution. Currently all the inventorying is done by hand in the warehouse and the inventory is being kept on a google spreadsheet. The goal of this case study is to clean up the current inventory data of over 67,000 items and 2,000+ data points. Then extract how frequent certain items appear, % of items come from X company, and of all the items from X company, what are the top three. The data from this case study will be used in a future project to help speed up the manual inventorying process potentially saving hundreds of hours of volunteer time. |
| Problems | Current problems with the data set include the use of open text responses leading to companies being categorized under different names, items being misrepresented because of different naming conventions ie. Syringe vs Syringes making it hard to run any sort of reliable analysis on it. A majority of the time spent on this project will be on cleaning the data. |
| Solutions | The case study will be tackled using a mix of SQL, spreadsheets, and R. SQL and spreadsheets to help clean the data and R for analysis and visualization.   1. SQL / spreadsheets (may use some C++ to help)    1. Cleaning mistyped data (null values, wrong types, etc.)    2. Standardize spelling of company names    3. Replacing common item names (ie. 5 ml syringe, 10 ml syringe will both be categorized under syringe) 2. R    1. Data analysis       1. Averages       2. Summary statistics    2. Data vis       1. Pie charts with % items (by company)       2. Pie charts with % items (from X company pool) |
| Conclusion |  |
| Next Steps |  |