**Steps to Produce Inventory Allocation Maximization Data Sets**

1. Connected PowerBI to three dataflows as provided by aaron burton.
   1. **Inventory Dataflow:**
   2. Business Planning > Inventory – Latest Snapshot – Detailed > Inventory for Allocation
   3. **Orders Dataflow:**
   4. Business Planning > Open Orders with Appointments > Open Orders for Inventory Allocation
   5. **Product Master:**
   6. Business Planning > Item Master > Product Master for Allocation
2. Make each dataflow a table in PowerBI with all columns included
3. Exported xlsx excel sheets from PowerBI
4. Create and “age\_joiner” excel file where…
   1. First column is age and rows go from 1 to the max age in the model (currently 120)
   2. Second column is joiner or 1 for all rows
5. Generate SQL script to load the three excel files into SQLite
   1. Convert excel column names into a naming convention that I like
   2. Add a “joiner” column onto the inventory table. Each row is 1
   3. Create a age\_joiner table
6. Loaded the inventory, orders, and item excel files into sqlite
   1. Excel data type can be weird loading to sqlite, be careful.
7. Run the spec\_fix.py script which lives in the Python folder in the Inventory Allocation Maximization folder.
   1. This will remove the bad specs from the spec list in the inventory data
   2. It will also overwrite the existing mvp\_inventory table with a new version that includes the cleaned\_spec column
   3. This script is not capable, yet, of handling multiple items. Its an MVP version with static references. Some of the other required updates are commented in the code
8. Run the create\_products\_table.sql script.
   1. This will create a unique list of products and a formatted excel sheet ready to load directly into the coupa products table
      1. File cant be found @ S:\Supply\_Chain\Analytics\Inventory Allocation Maximization\MVP Data\input tables
   2. It will also create a new table called mvp\_distinct\_inventory\_products which will be useful in the next steps
9. Run the create\_BOM\_table.sql script. I have two scripts, at the moment (4/10/25) it’s the bottom one separated by a --------- on line 43.
   1. This will create a file ready to load directly into coupa’s BOMs table. Can be found @ S:\Supply\_Chain\Analytics\Inventory Allocation Maximization\MVP Data\input tables
10. Run the create\_BOM\_assignments\_table script.
    1. This makes some modifications to the BOM script basically
    2. I had to create a new table as a first step in this script to include the whs\_code the products live at. This will make sure product cant age at warehouses it doesn’t exist at.
       1. I will have to make a production policy for all the products and I only want things to be able to be “produced” aka aged at the warehouse they live at.