Module 03 – Production Modeling

Exploratory Data Analysis

*In this section, you should perform some data analysis on the data provided to you. Please format your findings in a visually pleasing way and please be sure to include these cuts:*



Model Formulation

A screenshot of a computer

AI-generated content may be incorrect.

Model Optimized for Cost Reduction

*Implement your formulation into Excel and be sure to make it neat. This section should include:*



find the lowest total cost while ensuring inventory levels remained feasible and demand was met. This total cost includes:

* Quarterly production costs (dependent on the number of units produced and their per-unit costs).
* Quarterly carrying costs (dependent on the average inventory).

Model with Stipulation

*Please copy the tab of your original model before continuing with the next part to avoid messing up your original solution. If we remove the production capacity constraint from the model & we removed the carrying cost, what do you think will happen? Try it out and see if it matches your expectation. Try to explain what is happening and talk a bit about fallbacks of models.*



*The model shows that the total cost is about $2000 more when not optimized to be less than or equal to the maximum production.*