Question :

* Your MS Word file (not the PDF file) for your report containing tables showing your solutions, your mathematical model, analysis of your results and explanation of your recommendations. Your assignment will be marked based on the content of your report.
* • One MS Excel file for the calculations of your Chase and Level SOP plans.
* • One CPLEX or Lindo file, or whatever software you used for your optimization model

Consider the SOP data given in the attached Excel file. Read the given information carefully and use the demand forecast given in the table to answer the following questions.

1. a) Propose a chase SOP plan and a level workforce SOP plan for the next 6 months. Discuss the main characteristics of these two plans in contrast with each other. Between these two plans, which plan would you recommend the company to choose? Justify your recommendation.
2. b) Use a mathematical model to find an optimal SOP plan. In your model also consider that the existing warehouse space is limited and can hold no more than 500 units at any given time.
3. c) If you are presented with an option to rent additional warehouse space for 150 units, on a monthly basis, for $1000 per month, would you consider renting it? If yes, which month(s) would you rent it and why? You are expected to answer this part by using the LP solution you obtained in part (b) and without having to solve the model again.