Guideline on the final report.

The report should include the following components. A template file (for LaTeX) is available in Canvas for layout issues.

• **Abstract:** Provide a condensed summary of the full report. The abstract should be self-contained and understandable without reading the rest of the report. Clearly state: the problem you address, the approach you take to solve it and your main findings

• **Introduction:** Describe the real-world system that motivates your study. Address the following: What is the system in the practice? What specific problem in this system do you investigate? What is your general approach to analysing this problem?

• **Data Processing:** Explain how you handle the data and estimate key components of the model:

   o   Describe how you estimate the truck arrival process and the service time distributions;
   o   Apply appropriate statistical tests;
   o   Include the analysis corresponding to Questions 1, 2, and 3

• **Problem Formulation:**

   o   Describe the conceptual model of the real-world system; Introduce notation, variables, and parameters.
   o   Define the system's state variables and events; Describe the state transition process; Formulate the discrete-event simulation (DES) model.

• **Experimental Design and Validation:** Describe how the simulation experiments are designed and validated:

   o   How is the DES model executed? (e.g., initial condition, stopping condition); How many sample paths are used to estimate each performance measure? Justify your choice of sample size.
   o   Explain how you validate the correctness of your model and code, this step is to convince the reader that the results are reliable and the model/code are correct

• **Comprehensive Numerical Results**:

   o   Present and interpret the results from the simulation: Report findings for Questions 4 and 5.
   o   For random estimations, include both point estimates and confidence intervals.
   o   When proposing an improved policy, provide intuition behind its performance

• **Conclusion with Insights and Limitations:** Summarize the key contributions and provide critical reflections; Recap your methodology and findings concisely; Discuss insights obtained from the analysis; Point out limitations of your study; Suggest directions for future research

• **References (Optional)**

Include any relevant literature, articles, or websites that informed your work.

➤ Additional Tips

Add figures and tables where they help illustrate key points or results. Use clear headings and subheadings to improve navigation and readability. Not exceeding 20 pages.