DM559/DM545 – Linear and Integer Programming

Rubrica, Spring 2018

Guidelines for the self assessment of the assignment.

The performance should be assessed according to the following factors, listed in order of importance:

- correctness of the mathematical model

- presence of a description of the model

- correctness of the implementation and numerical results

- state of the report, ie, style, structure, elegance, language appropriateness.

Please, unless your English is good and you plan to check your grammar and style before submission, then write in Danish.

The following is a list of comments detected in the reports (not in order of importance).

1. Mathematical model not well written: it has non linear elements; it is not formally similar to those discussed in class. Every line of the model must describe a relation for the variables and any relation for the variables must be in the model.

2. Definition of mathematical symbols missing.

3. Lack of mathematical notation, which would help to make the description more precise and readable.

4. Presence of undefined indices in the objective function or constraints, this is often due to the lack of summations or of quantifiers in the constraints, ie, $\forall i \in I$. It includes the presence of unfinished quantifiers and summations, for example, $\forall i$ or $\sum_i$

5. Awkward mathematical notation, for example, in Latex wrong symbol used, ie, $<=$ instead of $\leq$, or i instead of i. Also, $x[t]$ is programming language notation, x_t is the math language that you are supposed to use. Moreover, $f(t)$ is a function, not an indexed variable/parameter.

6. Explanation of the model not provided.

7. Domain of variables not given.

8. Constraint not correct, it does not do what it is said to do, or explanation is missing and it is not understood what the constraint should take care of.

9. Wrong number of constraints (note that upper bounds are constraints)

10. Numerical results not correct and they do not make sense.

11. Plots or tables or numerical results not commented.

12. The report does not provide any evidence that a model for solving the problem has been actually implemented in Gurobi Python or other solvers.

13. Grammatical errors. If the text is in English, note that English was not a requirement and Danish would have been fine as well. If the text is in Danish and there are grammatical errors, then this is even more worrying! Typical errors in English are: lack of "s" in the third person of verbs.

14. Typos: spell checker not run. The care put in preparing the report reflects often the care put in all aspects of the work. Detecting typos, puts the reviewer in alert and distrust.

15. Language not precise.

16. Same notation used for two different things.

17. Horrible mathematical symbols: learn to use LaTex!

18. Plot not correct

19. Bad code, you probably did not understand the difference between decalarative and imperative language and are trying to use gurobipy in imperative mode without using quicksum.

For another list of comments you can consult: Latex Style Guide.