Comments regarding the CFD-Reports

Below you will find comments regarding common mistakes. **Read at least the first two, they are by far the most common and important ones.**

Results: The figures by themselves is not your results! You should present your results in text as well. The reader should be able to grasp your results (most important aspects) by reading the text without the figures. Describing your results or even how they deviate from a reference is results and not discussion. Also, it must be clear what is presented in which figure. Stating that measured quantities are presented in figure 4, which happens to have 4 sub figures, is not enough.

Discussion: The purpose of your project is to fulfill your aim and/or goals. Not to discuss whether you fulfilled them means that you leave the question open (easier to discuss with a well formulated aim). Make it clear to the reader! Describing your results is not discussion but results, the discussion is the reasoning if what you see is expected, can be explained, what it means and how it connects to what others have done. So logical reasoning supported by references (which is not necessarily a scientific paper). Use theoretical knowledge, books, papers, etc. to put your results into a larger context. How have the model performed for others? Known issues strengths in connection to geometry/flow? Have important parts of your geometry been investigated in detail by others (the reference should be relevant for your comparison but not be a replica of your project).

General suggestions: Next time you are about to write a report, take a minute to think about the following things. Who is the reader? I have read the course and am familiar with CFD but I still had a hard time following some of your reports on occasion. Writing a report in a way that you and your classmate, who is doing the exact same assignment as you, are the only people that can understand it is a bit to narrow. Which leads me to the next comment, be specific! Just because you understand does not mean that you are clear enough. It is very easy to think that just because it is obvious to you how things fit together, it is also obvious to the reader. However, it is not! A good suggestion is to let someone read it and see if they understand what you mean, and this someone should preferably not be the guy next to you in the lab that have done the exact same thing! Also, read your report thoroughly before sending it in. Sloppy and unclear sentences, erroneous spelling and sloppy language in general is a sure way to deter any reader or at the very least to give an impression that you don't want to mediate.

Abstract: The abstract should include the following information; context-lack of knowledge/problem-solution-result/conclusion. Don't just start with the solution and then some results. How wide you start with the context depends on your intended audience.

Introduction: The Introduction should include the following information; context-lack of knowledge/problem-solution-aim and goal. Here the context should be more thorough and contain some background information regarding previous work, state of the art, etc. Don't forget to state your aim and if possible, a measurable goal.

References: Choose a reference system and stick to it, booth with regards to the reference and the format of the reference list. It is easy to find out what info is supposed to be included in the reference

list for a given system by googling it. Regarding references in the text, be generous! Don't be afraid to use a reference every time you use the information from that reference (within reason).

Appendix: The appendix is not a part of the report, which is why it should be in the end, after the reference list. This is also why you should state that the reference you are using in the text refers to an appendix. To distinguish it further, the appendix should have a format of page/figure/table nr that is not the same as in the report, and all numbering should start from 1 (or A1 or whatever style you are using). The appendix is not just extra space where you put stuff you don't want in your report, the information inside should be relevant, be referred to, and presented at least briefly in body text. So, don't just say appendix and throw in 10 figures/tables to cover your back.

Mesh (and geometry): Sufficient information means that the reader should be able to recreate the mesh/geometry. You need quite a lot of information, and quit specific information at that, to be able to recreate a mesh, a mesh convergence test or a complex geometry. But just throwing in all details you can come up with is not the way to go either. It is perfectly fine to put information in an appendix if it is not necessary for understanding the result and/or discussion.