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Since this seems to be an open reflection, I will include all the comments I have in regards this project and the overall course.

Firstly, I would like to start with the difficulties that I encountered as some of the instructions are vague and lead to errors. For instance, the instructions for the function void setNextStation(Station& station) ask to store the provided Station object's reference into the m_pNextStation pointer but it doesn't make sense as m_pNextStation is a member of a workstation so I think the object reference should be a workstation instead of a station. I ended up including defining that function as void setNextStation(Workstation& station). I had a very hard time debugging the code for the run function in LineManager module as I was getting an infinite loop when displaying the stations. After some hour of debugging I was able to isolate the issue to my extractionToken function inside the utilities module. I was having this issue because I was not properly setting the more variable that is passed as a reference. That reinforced me that I must be extremely careful when managing variables that are passed by reference and specially when they are modified as you can have a lot of errors in case the variable is not properly processed. With this I understood the rule of thumb that whenever possible is always a good practice to consider all our variables as const to prevent any unwanted bug.

I also had a really hard time trying to align the output that was requested for this project. It is a good experience, but it is so time consuming that I had to run the program multiple times to ensure that the output was the same as the one required for submission. I really like how the string class helps us manage the output with all the defined function members that are defined. For the last two terms we were asked to work with char arrays so we could master it before using string class that is easier for char handling.

Secondly, I would like to mention that overall, the project is interesting as it forces us to use a lot of the concepts that were learnt during the first half of the semester. I really liked that we were able to include containers for this project as they are very useful. Specially for their member functions that can help us manage the content that is contained in them which ease the coding. I also learnt how the error handling help us gracefully manage in case an error occurs during the runtime. I would also like to mention that I will never forget how the move and copy constructors/operators are very important in our code so our objects can be managed properly.

Lastly, it is very sad for me that we couldnot practice on important and hard to understand topics like smart pointer and multi-threading that we reviewed during the second half of the semester. It is very important for me to have practice on those topics as I will be assessed on that in the final exam and sometimes the workshops are not enough to have enough practice in those complex topics. I also, think that I needed more exposure to the STL algorithm library. I will have to go in depth so I can be able to choose the right algorithm under any solution that I may be implementing. I really enjoy the learning I had in C++ and although this is course is supposed to cover more advanced topics, I still feel that I am in a beginner-intermediate level. This may be the last course I take for C++, but I am aware that is my responsibility to keep the practice and go in depth with all the concepts that all the courses that I have taken donot cover.