## Gemini 2.5 Pro Use log

For the first prompt I started by sharing some of the instructions and giving general guidance on what this assignment is about. I asked it to walk me through how we can do this step by step. It gave me a solid codebase but I didn't like how heavily commented it was and how it wasn't separated into multiple classes with different files for each. I then refactored the code into multiple classes Main, SortedLinkedList, GetUserInput and PrintList and I also heavily modified the commenting only keeping a few of the lines it suggested. I then sent this back to Gemini for its input to see if I went about this refactor correctly. I also wasn't quite sure how to structure main at this point so I left that blank for now and told it I needed help there. It seems like while I was mostly correct I forgot some return statements, imports and I improperly defined my methods. I saw that these improvements were clearly for the best so I implemented essentially all of them. After making the necessary changes I then asked it to confirm that what I had done was correct before I moved onto implementing main.

I then asked it to proceed walking me through the creation of the class Main and asked it to make sure we go step by step through the process of making this. The way that it set up main made a lot of sense and was pretty simple so there wasn't much to change. I did change the variable and object names to make things more clear and easy to understand. Also the comments were excessive so I removed most of those and modified what I left slightly. I then asked how we could run this from the terminal as I had never done that with Java before. I was given some very basic instructions just a couple lines of terminal commands and everything was up running and worked through a few test cases so I felt confident to move on to the documentation. I then wrote the javadocs for the classes and gave them back to Gemini for review to make sure I didn't miss anything. Overall it thought I did a very good job. It mentioned how I forgot a parameter description and had some spelling errors so I incorporated those fixes. Also I adopted the wording it used for the return description in GetUserInput as it seemed to make more sense than what I wrote. After this I added some comments and finalized what was there and then sent the files to Gemini again for some feedback. It said that no changes were needed and as far as I can tell I did everything I had to in that regard.

The next thing I needed to do was create the UML diagram. I attempted to create the UML diagram on my own and then gave it to Gemini for review. It noticed how I got confused about where parameters are placed. I put them in the attributes section in the UML diagram which when looking back over how to make them I see that this was an error on my part. I proceeded to implement the changes suggested by Gemini and moved the parameters into the bottom section with their associated methods. It also suggested I add the dependency arrows but I already had those so it must have not seen them. I then prompted with the updated diagram and asked to make sure that we only have the three connections from main and that there shouldn't be more arrows. It corrected me on a missnamed method and so I fixed that but no other changes were needed. I asked it about what the command was to generate the javadocs and whether or not I would need to include the pre-compiled Java classes or if I should have the command to generate them instead. The instructions and javadoc command I was given seem to match what I have been taught so I kept that command in full. It also recommended I not send the class files which made sense to have them be compiled on the machine that will run them.

Next I went to work on the code reuse aspect of the project and prompted to ask about where it thought I had code reuse other than the collections library as that was all I could identify. It noticed quite a lot that I was unaware of especially when it came to the built in language methods like parseInt() so I kept most of that but put it all in my own words. I then sent it what I wrote just to make sure that I didn't make any silly mistakes. It said that wrote was fine so I ended the chat there.

The full conversation can be found here: <a href="https://g.co/gemini/share/146fe7b2c452">https://g.co/gemini/share/146fe7b2c452</a>