

Documentation and Coding Style

There are many programming practices that must be followed when writing any piece of code.

- Follow Java Programming Style Guidelines. A part of your grade will be checking if you have followed these mandatory guidelines or not. It is important to understand that programming is a team oriented job. If your code is hard to read, then you are failing to be a productive part of any team, in academics research groups, or at work. For this, you must follow these guidelines which make your code easier to read and understand by your fellow programmers as well as your graders.
- Do not be afraid to use long variable and method names as long as they increase clarity.
- Avoid code repetition - In case where you see yourself writing same code block in two different places, it means this code must be put in a private function, so both these places may use it.
- Full documentation of the different classes and their public and protected methods, by following Javadoc style of documentation. You may, if you wish, also document your local methods but they are not mandatory.
- Add comments for code blocks where understanding them without, may be difficult.
- Your files must not include commented out code. This is garbage. So once you finish coding, make sure to clean your code.
- Long functions are frowned upon (30+ lines). Long functions mean that your function is doing too many tasks, which means you can move these tasks to their own place in private functions, and use them as appropriate. This is an important step toward increased readability of your code. This is to be done even in cases where the code is used once.
- Magic numbers are bad! Why? Your application must not have numbers throughout the code that need deciphering.

Your implementation must follow these steps in order to keep the code ordered, clean, and easy to read