

# Assignment01-text

## Assignment01-Q3:

The benefit of using Maven is that the strong error reporting and debugging features. Maven also has a huge community, growing its libraries and helping contribute to the advancement of the tool. This community was attracted mainly to its ability to write easy plugins using Java. Additionally, it allows for a great deal of consistency with its Dependency Management.

## Assignment01-Q4:

1. Self-Documenting: Beyond just writing code that executes, code should also be easy to understand and modify. This principle of OOP, extends on the idea that code should have meaningful variable names, minimal in design, modular and intuitive in format all of which benefit longevity of a codebase.
2. Open-closed: Objects should be open for extension and closed for modification. The idea is to continuously create objects that are modular in-design to reduce re-writing / repurposing code and always innovate and build with what we already have.
3. Divide and Conquer: This OOP principle / problem solving framework is great for solving complex problems. Instead of tackling a large problem, continuously dividing it into smaller and smaller problems until you have problems with direct solutions can save time, difficulty, and bring a better understanding to the developer. This utilizes top-down and bottom-up problem solving.
4. Encapsulation: To reduce duplicate code, this principle ensures that everything is unique in attributes / purpose. Not only does this save time, but it also ensures that there is a concise approach to the problem at hand.