Design Patterns

Established conventions to solve a software problem.

* promote reusiability of code and lower maintenance
* easier for you and others to read/understand
* **Scalability and Reusability**

Why?

* they increase coding speed
* they bring structure to our code
* boost efficiency

Singleton Design Pattern

* A singleton is a design pattern to not allow more than one instance of a class to exist.
* Generally in Java, we achieve this by using a private constructor
* **Lazy**: will wait until an instance is needed to create one
* **Eager**: will create an instance right away (at start of application)

Factory Design Pattern

* a solution to write code that creates objects whose type will not be known at runtime
* when we use a factory, we know what we want an object to be able to do, but we don't care what the final product looks like