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⭐ **Weekly report**

By completing Lab assignment 03, I learned a lot. This is the most challenging assignment I’ve had so far of CS5004. I practiced using enum, and abstract classes and built more various and complex program designs by using inheritance, and interface. To achieve some certain program design, I also study polymorphism and apply it to my code.

Compared to the previous lab assignment, I think this lab 03 requires us to focus more on the logic, design, and framework for our program. Certainly, there are many options to reach to the program goal, but based on my current skill level, how to utilize all my current learning to implement it is the challenge and fun part of this assignment.

I think this is a great practice to build my OOD mindset while coding, Having a framework like UML diagram is extremely helpful for my future growth. Because I could clear filter out, extract the attribution, and methods from multiple classes, and then create an inheritance system. I will keep practicing this developing process in the future.

And I built Extensions below in my program to reach to 100 points.

* New resource type, Concrete
* New concrete block
* New concrete block factory
* Using ArrayList to store blocks
* Set capacity for each block inventory
* New completely different driver
* Test breakBlock inside the driver
* Create some JUnit tests
* Add comment in each class
* Add more exception handling for methods that take argument

A diagram of a factory

Description automatically generated

I understand that my learning is dependent on individual effort and struggle, and I acknowledge that this assignment is a 100% original work and that I received no other assistance other than what is listed here.

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