CSC207 Project Walkthrough

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Extensibility

Our program is as extensible as possible. It does not care for the floor layout nor the procuct type. As long as the set up files are provided it will run. For multiple different products in the same factory, if they can be mixed when loaded, one instance of MasterSystem will be enough to handle all of them. If they needs to be seprated, we can either just use one instance of MasterSystem per product or slightly change the PickingRequestManager class's generatePickingReq method. We did not add any new configuration files.

System boundaries

- The fax machine
- The computer
- The barcode scanners
- The trucks

Design patterns

- Dependency Injection in MasterSystem class
- WorkerManager and PickingRequestManager classes are Observers, Worker and PickingRequest classes are Observables
- MasterSystemFactory and TestFactory are factories

Strength and weakness

Strength:
Our project is very safe, we have exposed very few methods as public methods.
It also doesn't have string comparison anywhere, making all the if statements very concise.
It is very modular, all the methods are short and we make use of helper methods.
There are little to none duplicate code.
It is highly customizable, there are few to none values hard coded.
It is organized, classes are grouped into different packages.
It is fast, the algorithms we used are mostly in constant time and at worst linear time, making the asymptotic runtime fast.
It emulates the real life workflow very well, we have taken the real life situation into consideration when we designed this project.
It is highly portable. It will run on almost any operating systems.

Weakness:
None