You are given a coding exercise to create an Inventory Application for a department store. In this exercise, you may use any technologies, frameworks, libraries as you prefer. But please stay in Java for the backend and HTML5 for the frontend as the main programming language.

The Inventory Application should have the features below.

1. An Inventory has name, category, sub-category, quantity information

2. The system supported to create Inventory, update the quantity and browse the Inventory records

3. There are some validation rules when creating an inventory, eg. a sub-category "Shoe" should not in category "Food", or sub-category "Cake" should not in category "Clothes".

4. Additional features supported which not mention in above will be treated as bonus

This exercise is aimed to demonstrate your skill on OO Design, practice of TDD, and the coding technique. You are NOT necessary to cover the deployment part of the application. If there is anything isn't mentioned in this exercise, you may assume you are the business user and make the appropriate assumption, just state the assumption and the limitation in the project readme file.

If you are backend developer role, backend code is the major focus, a very simple UI or even no UI is fine.

If you are frontend developer role, frontend code is the major focus, you can use any mock data to mimic the backend.

Please upload your project to any web repository (eg. github / bitbucket) for us to download.