

Clean Code Lab Requirement

Objective:

In this lab, you will enhance the Inventory Management System by adding a low-stock alert feature. This feature will trigger an alert when an item's quantity falls below 10 units. You will implement this feature in the existing messy version of the code to observe the challenges of working with unstructured code, and then copy this file and clean this code.

Requirements:

- Clone this [repo](#)
- Implement a Low-Stock Alert Feature: Modify the system to check if any item's quantity falls below 10. If so, log the following alert message:

****ALERT: Item [item_name] is below 10 units! Current quantity: [quantity]****

- Ensure the alert is triggered in the following scenarios:
 1. When reducing an item's quantity below 10.
 2. When removing an item from the inventory.
- Clean the code according to the learnt concepts

Implementation:

- Add the low-stock alert feature to the messy version of the Inventory Management System.
- Ensure that any quantity change correctly checks and logs alerts when needed.

Testing:

- Update item quantities and verify that the alert is triggered when an item falls below 10 units.
- Remove an item and check that the system handles it properly.
- Confirm that the alerts are correctly displayed in the system log.

Benefits of the Lab:

This lab highlights the importance of clean and maintainable code. Working with messy code makes it difficult to add new features without introducing bugs. Through this exercise, you will experience the challenges of maintaining unstructured code and appreciate the benefits of writing clean, well-organized code.

Deliverables:

- Submit the updated messy version of the Inventory Management System with the low-stock alert feature implemented and tested.