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Points to be noted

Major issues in original code

- 1) The Update_quality method is large and hard to read, with lot of nested if statements
- 2) The item specific code rules are hardcoded for specific set of items where it is making hard to extend the code for new item types (eg Conjured items)
- 3) The inventory management and the item update logics are tightly coupled due to this there is separation of concerns
- 4) If the code is tweaked for one item it changes the entire logic of the rest codes and it affects the proper working of the code

Design Choices Made:

- 1) Introduced a strategy design pattern where it is easier to separate the update logic of the inventory management system . Each item type has its own update strategy (eg . Normalstrategy , AgedBrieStrategy, ConjuredStrategy).
- 2) Gliderose manages the list of items calls the appropriate strategies improving readability and maintainability

Benefits:

- 1) Easy to add items without changing the existing code
- 2) Improve code clarity , implementing strategy design
- 3) Promotes the reusable and testable components

Potential drawbacks

- 1) Increase in the class count and the complexity
- 2) Strategy object must be assigned to correct item, improper assignment could cause incorrect behaviour