

# Dotnet Coding Challenge

This coding challenge is to create APIs and tables for the products screen in a retail application. User can view the list of products here with search option. User can create, update, and delete any product. But it should follow certain business logic as follows.

1. Only active products should be listed in the page, the order should be latest first.
2. User can search using Product name, Price range and posted date range.
3. Product creation is not allowed when its price is more than 10000 dollars.
4. Any product should be pushed to approval queue if its price is more than 5000 dollars at the time of creation and update.
5. Any product should be pushed to approval queue if its price is more than 50% of its previous price.
6. Product should be pushed to approval queue in case delete.
7. User should be able to see all the products in approval queue along with product name, request reason and request date. The order should be based on request date where user can view first requested item first.
8. Product will be updated with new state (Create, Update, Delete) which should be reflected immediately in the product list and disappeared from the queue after the approval.
9. Product will remain in its original state in case of rejection in the queue and will be disappeared from the queue.

A sample API is already created to get the product list. You can figure out other APIs based on the above requirement. You need to create all the necessary tables for this screen. You can use your local database. You can set your own data types and lengths based on the requirement. You are free to define all the Product properties such as name, price, and status.

**Note:** No need to implement user authorization for this screen though it covers approval process.