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# Project 1 - Pet Supply Management System

## Description:

The point of the project is to design and implement an inventory management system in Python using Object-Oriented Programming (OOP) principles. The system should employ multiple classes to handle various inventory operations, with each class focusing on specific components, such as items, inventory management, and reporting.

## Structure:

I built a comprehensive Pet Supply Management System using Python which would allow employees to manage pets, customers, food, and toys with efficient use of time.

I started by creating an item class representing the items, the price, and the quantity. I added methods that display the item and the amount.

Next, I created a class to manage inventory. The inventory is a list that is edited by the methods in the class. The structure allows the user to manage the inventory effectively, adding and removing items as needed while keeping track of their details.

The third step was creating a report class that reports the current inventory. I made a couple of different methods for different purposes. The total_inventory method adds up the total stock of items from the previous inventory class. I used a dictionary to categorize the items by category and provide a count and total value. The last method is the generate_report which generates a comprehensive report summarizing the inventory state.

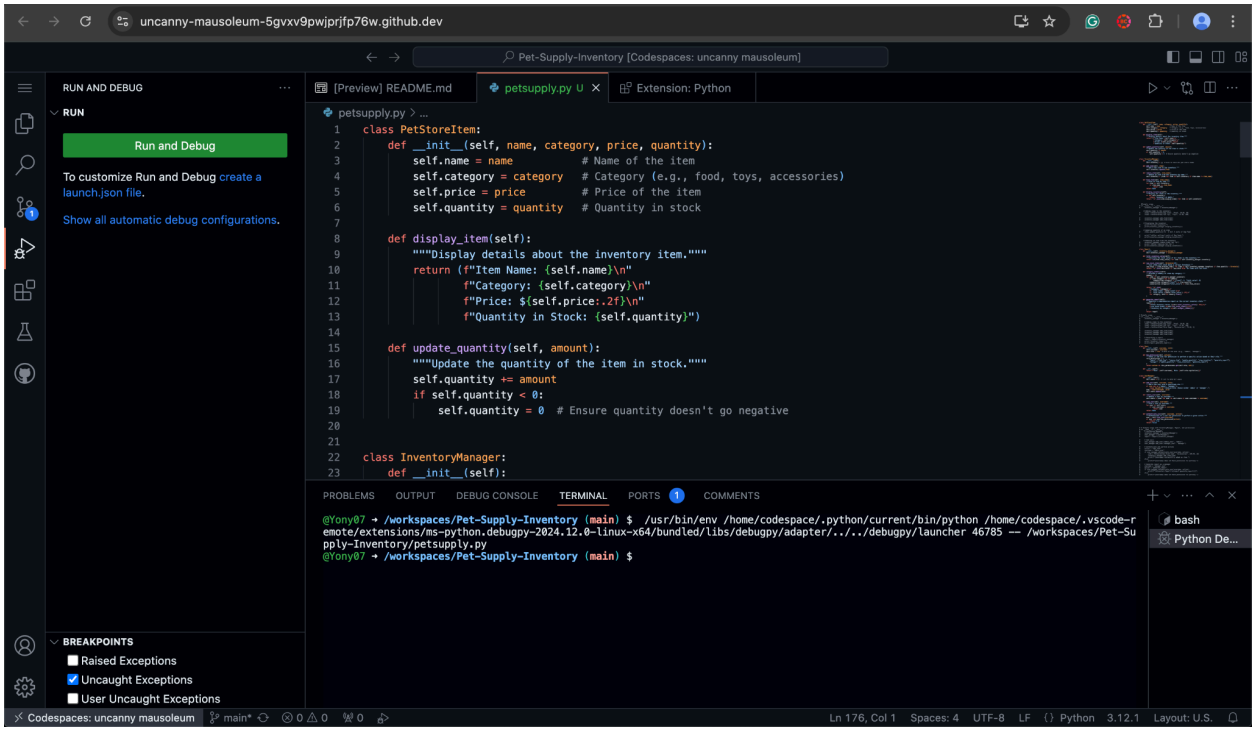
The final step was to create a multi-user class. Instead of making one full class, I formed a class for users and a class for management. The user class is to check the user's role to see

whether they have access to the management class. The user management class holds instances of the user class. So, if you are a manager or an admin you have access to the class. The methods in the class allow you to add users, remove users, find users, and authenticate users(check the role to see what permission the user has). This was the most challenging part because I had to implement the previous information from the classes to allow different permission to each user.

## Using The Code/Verification:

Using the code is fairly easy. Input what values are wanted. The code is made to be used anyone.

## Functionality:




## Sources:

Code Academy

W3 Schools

Google Colab(Strictly for Assistance)