Thank you for sharing the code. Here are two issues that I think could be improved:

**Issue 1: Redundant Code in Displaying Available Products** The display\_available\_products method is called multiple times in the if choice == "1" block. This could be optimized to avoid redundant calls.

**Issue 2: Lack of Error Handling for Invalid Input** Currently, the program does not handle invalid inputs gracefully in some cases. For example, if a user enters a non-numeric value for the quantity, the program will throw an error.

Here’s how you can address these issues:

**For Issue 1:**

* **Branch Name:** optimize-product-display
* **Changes:**

if choice == "1":

# Allow the user to add items to the cart

available\_products = cart.display\_available\_products()

product\_choice = input("Enter the number of the product you want to add to your cart: ")

if product\_choice in {"1", "2", "3"}:

try:

quantity = int(input(f"Enter the quantity for {available\_products[product\_choice].name}: "))

cart.add\_to\_cart(available\_products[product\_choice], quantity)

except ValueError:

print("Invalid quantity. Please enter a valid number.")

else:

print("Invalid product choice. Please enter a number between 1 and 3.")

**For Issue 2:**

* **Branch Name:** improve-input-validation
* **Changes:**

if choice == "1":

# Allow the user to add items to the cart

available\_products = cart.display\_available\_products()

product\_choice = input("Enter the number of the product you want to add to your cart: ")

if product\_choice in {"1", "2", "3"}:

quantity = input(f"Enter the quantity for {available\_products[product\_choice].name}: ")

if quantity.isdigit():

cart.add\_to\_cart(available\_products[product\_choice], int(quantity))

else:

print("Invalid quantity. Please enter a valid number.")

else:

print("Invalid product choice. Please enter a number between 1 and 3.")

Please note that you’ll need to execute the Git commands to create branches, commit changes, push to the repository, create PRs, and merge them in your local environment. Let me know if you need any further assistance! 😊

Sure, here are the steps you can follow to address the issues and make improvements to your code:

**For Issue 1:**

1. **Create a new branch:**

git checkout -b optimize-product-display

1. **Make the changes:** Replace the existing if choice == "1": block in your code with the following:

if choice == "1":

# Allow the user to add items to the cart

available\_products = cart.display\_available\_products()

product\_choice = input("Enter the number of the product you want to add to your cart: ")

if product\_choice in {"1", "2", "3"}:

try:

quantity = int(input(f"Enter the quantity for {available\_products[product\_choice].name}: "))

cart.add\_to\_cart(available\_products[product\_choice], quantity)

except ValueError:

print("Invalid quantity. Please enter a valid number.")

else:

print("Invalid product choice. Please enter a number between 1 and 3.")

1. **Commit your changes:**

git add .

git commit -m "Optimized product display by reducing redundant calls"

1. **Push your changes:**

git push origin optimize-product-display

1. **Create a PR:** Go to your repository on GitHub, you’ll see a button to create a new pull request with your recently pushed branch. Follow the prompts to create the PR.
2. **Merge the PR:** Once the PR is reviewed and approved, you can merge it into the main branch and close the issue.

**For Issue 2:**

1. **Create a new branch:**

git checkout -b improve-input-validation

1. **Make the changes:** Replace the existing if choice == "1": block in your code with the following:

if choice == "1":

# Allow the user to add items to the cart

available\_products = cart.display\_available\_products()

product\_choice = input("Enter the number of the product you want to add to your cart: ")

if product\_choice in {"1", "2", "3"}:

quantity = input(f"Enter the quantity for {available\_products[product\_choice].name}: ")

if quantity.isdigit():

cart.add\_to\_cart(available\_products[product\_choice], int(quantity))

else:

print("Invalid quantity. Please enter a valid number.")

else:

print("Invalid product choice. Please enter a number between 1 and 3.")

1. **Commit your changes:**

git add .

git commit -m "Improved input validation for product quantity"

1. **Push your changes:**

git push origin improve-input-validation

1. **Create a PR:** Go to your repository on GitHub, you’ll see a button to create a new pull request with your recently pushed branch. Follow the prompts to create the PR.
2. **Merge the PR:** Once the PR is reviewed and approved, you can merge it into the main branch and close the issue.

Please note that these commands need to be executed in your local environment where your codebase resides. Let me know if you need any further assistance! 😊