
ScaleReal Coding Assignment

Problem Statement:

You have to build a **CLI (Command Line Interface)** based E-commerce app called MyCart which has the following 2 flows.

1# User Flow:

- Users should be able to view the list of multiple categories.
- Users should be able to view all the products under a particular category.
- Users should be able to view product details.
- Users should be able to add products to Cart.
- Users should be able to buy multiple products from the Cart.
- Users should be able to remove products from the Cart.
- If the final billing amount is greater than Rs 10,000 then Rs 500 OFF should be given to the user.
- If the final billing amount is less than Rs 10,000 then no discount should be given to the user.
- Bill should be generated for multiple product purchases showing the actual amount, discounted amount, and the final amount.

2# Admin Flow:

- Admin should be able to add categories and products.
- Admin should be able to see details of the products added to the cart by the user.
- Admin should be able to see all the bills generated by all the users.

What we check in your code:

- Functional App
- OOP (Object Modeling, SRP, SOLID Principles)
- TDD/Testing
- Extensibility
- Clean Code and less/no code smells

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**Rules:**

- No frameworks.
- You can use relational databases.
- You cannot use frameworks but can use libraries/tools/gems/packages for building, testing etc..
- It should be a CLI App.
- You can choose any language of your choice(Python, Java, Ruby, Golang, JS/TS, Kotlin).
- Writing Tests is mandatory.
- You can assume things if things are not clear to you.

How to send us the code:

- Push your code on github
- Document the steps to run the application
- ER Diagram (Hand drawn is fine)

Books we recommend:

- Refactoring
- Clean Code

Reference links:

- <https://sourcemaking.com>
- <https://martinfowler.com/tags/clean%20code.html>
- <https://blog.cleancoder.com/>
- <https://thoughtbot.com/upcase/clean-code>
- <https://www.youtube.com/watch?v=8bZh5LMaSmE>
- <https://www.youtube.com/watch?v=T8J0j2xJFqQ>