Design Patterns
Task 01

Factory Method/Abstract Factory Method
Deadline sunday 18th of December

E-Shopping system

The e-shop provides different kinds of products according to the following categories
Outfits :

- Winter outfits:
    - Coats
    - Winter boots
    - Scarfs
    - Sweaters
        etc..

- Summer outfits
    - T-shirts
    - Shorts
    - Slippers
        etc..

Groceries :

- Beverages – coffee/tea, juice, soda

- Bread/Bakery – sandwich loaves, dinner rolls, tortillas, bagels

- Canned/Jarred Goods – vegetables, spaghetti sauce, ketchup

- Dairy – cheeses, eggs, milk, yogurt, butter

- Dry/Baking Goods – cereals, flour, sugar, pasta, mixes

- Frozen Foods – waffles, vegetables, individual meals, ice cream

- Meat

    etc..

Tools:
- Hand tools
    - Hammers
    - Pliers
    - Screw Drivers
    - Hand Saw
      etc..

- Power tools
    - Drills
    - Saws
    - Impact Driver
    - Impact Wrench
    - Sanders
      etc..

The system has 3 main users:
- Products seller
- Customer service
- Customer

Each user has his own personalized profile page and his own roles

A customer :
- Can buy products.
- Has a cart of bought items.
- Can edit cart content .
- Can review his purchase history.
- Can review products.
- Can search for a specific Product
- Can contact a customer service representative

A Product seller:
- He provides the product on the system.
- He can edit any added product.
- He can remove any added product.
- He can check the performance of a product

A customer service :
- He reviews customer complains
- He responds to complains

Your task is to implement a simple website or a mobile app that provides E-shopping service using both Factory and abstract Factory method design patterns whenever feasible with a fully functional front-end that reflects the output of roles of each user.

Submission details

- You will work in teams of 2~4
- We will conduct evaluations after the deadline in which each team member will be responsible for a part of the project and hence will be asked to show his/her work
- You are preferably asked to have all your work on a github repo that you can simply share with me and from which the contribution of each team mate can be shown
- If you choose not to work on a github account you are kindly asked to put all your work in one zip folder and submit it before the deadline
- In all cases you should add a readme file having all the names and IDs of you team
- A submission link will be posted on the CMS later on
- You are free to use any language you feel comfortable in.
- If you have any questions you can send them to my email (omar.ashraf@giu-uni.de)