Clothing E-Commerce (Fendy)

Design Document

Status: In Progress

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Last Update On: 4 Nov 2021

Version: 1.0

Contents

1. Overview

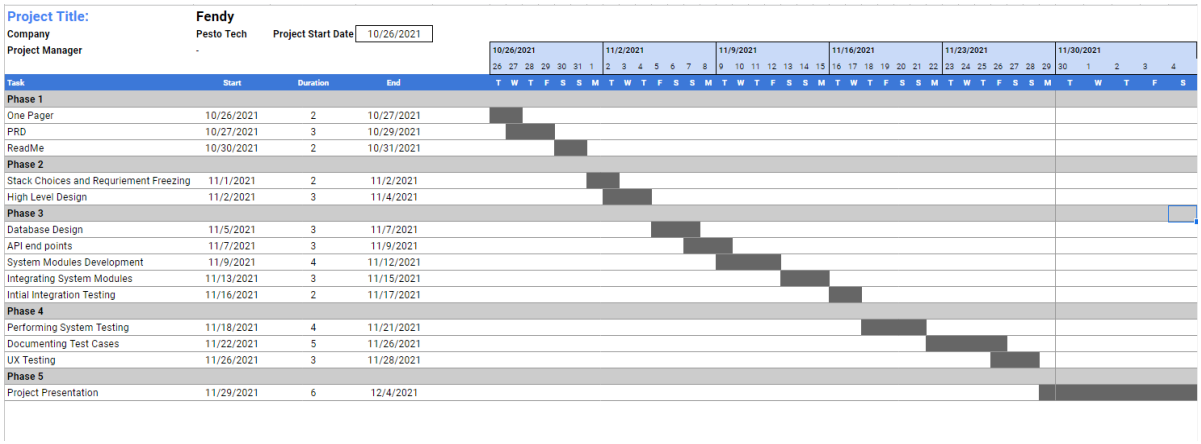
E Commerce is a booming sector. It is a kind of sector which always has a room for improvement. That's what our clothing e-commerce does. We have at least once thought of buying a style which we saw our favorite celebrity wearing. We go on website search for the exact style trousers shirts t shirts but never find the exact match. This is what **Fendy** solves. Fendy sells Outfit that suits you.

Fendy is one stop Outfit buying platform with its modern UI and Celebrity, Social Influencers rated styles.

2. Planning

The project follows agile methodology for its development and thus a new plan will be elaborated at the start of every sprint. In order to make a rough estimate of the amount of work and time the initial time line is estimated in fig. 2.1 (Link for the doc)

The project officially started on 26th October 2021 and in the first week the task of One pager, PRD was initiated.



Project Title:	Fendy		
Company	Pesto Tech	Project Start Date	10/26/2021
Project Manager	-		

Task	Start	Duration	End
Phase 1			
One Pager	10/26/2021	2	10/27/2021
PRD	10/27/2021	3	10/29/2021
ReadMe	10/30/2021	2	10/31/2021
Phase 2			
Stack Choices and Requriement Freezing	11/1/2021	2	11/2/2021
High Level Design	11/2/2021	3	11/4/2021
Phase 3			
Database Design	11/5/2021	3	11/7/2021
API end points	11/7/2021	3	11/9/2021
System Modules Development	11/9/2021	4	11/12/2021
Integrating System Modules	11/13/2021	3	11/15/2021
Intial Integration Testing	11/16/2021	2	11/17/2021
Phase 4			
Performing System Testing	11/18/2021	4	11/21/2021
Documenting Test Cases	11/22/2021	5	11/26/2021
UX Testing	11/26/2021	3	11/28/2021
Phase 5			
Project Presentation	11/29/2021	6	12/4/2021

Fig 2.1 Initial Schedule

3. UseCase Diagram

There will be 2 kinds of actors for the website. Registered and Non Registered Actor

Top Level Use Cases are:

1. View Items: use to find , view and add items to cart
2. Checkout: Billing and payment, this use case can also be considered as a part of View Items use case.
3. Register: new user registration

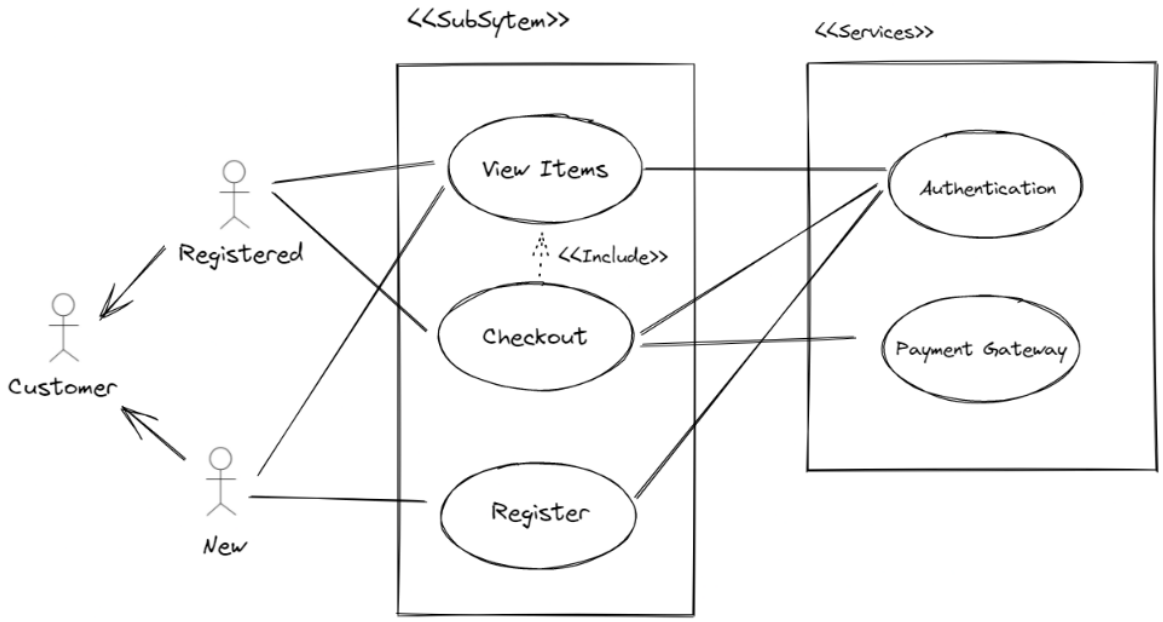


fig 3.1 High Level Use case

View Items use case is extended by several optional use cases - customers may search for items, browse categories, view trending items. add items to the shopping cart or wish list. All these use cases are extending use cases because they provide some optional functions allowing customers to find items.

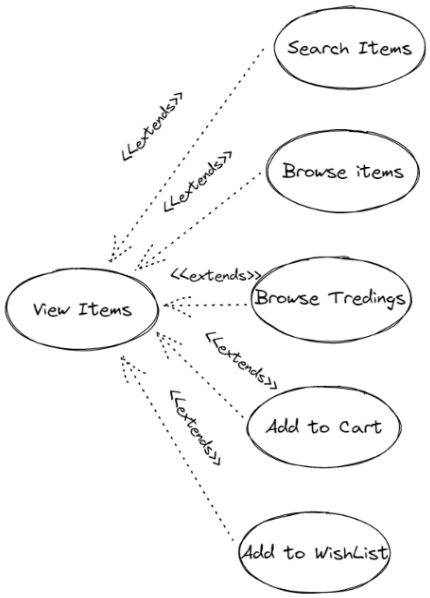


Fig 3.2 View items use case

4. Data Models

2 Types of databases will be used

1. MYSQL : for storing customer and product related datas.
2. MongoDB: for storing analytics related data and metadata about products.

ER Diagram

The ER Diagram is similar to any other E Commerce site with the slight difference of storing an outfit.

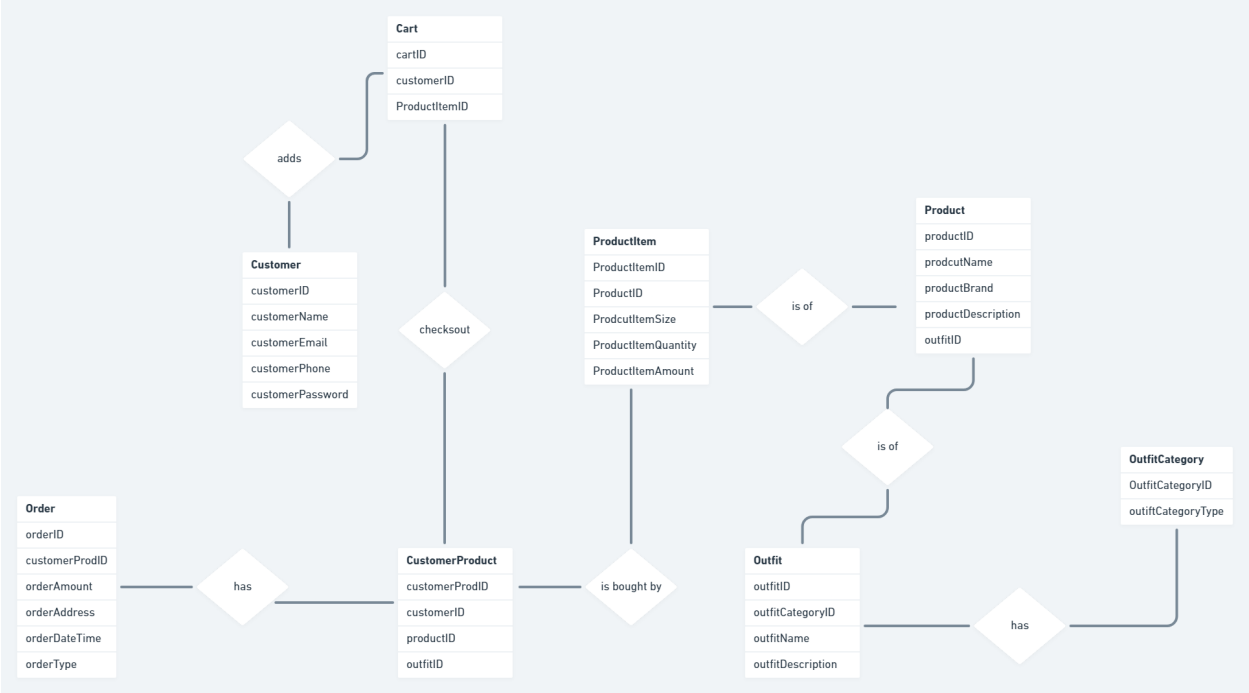


Fig 4.1 ER Diagram : Fendy

Outfit Entity contains the actual outfit which will be displayed to the customers, the outfit is derived from the individual products that has its data from productItems entity. Thus making a three level relation between them. This way we ensure that if a customer wants to buy a single item from the outfit the request can be met.

Schemas:

1. OutfitDocument
    a. OutfitID
    b. OutfitImageLink
    c. OutfitTags

This is initial Schema for Outfit and will change as project progresses

The Outfit Images will be stored in Amazon S3 Bucket.

5. System Behaviour

A high level behaviour of the system is captured by the below sequence diagram

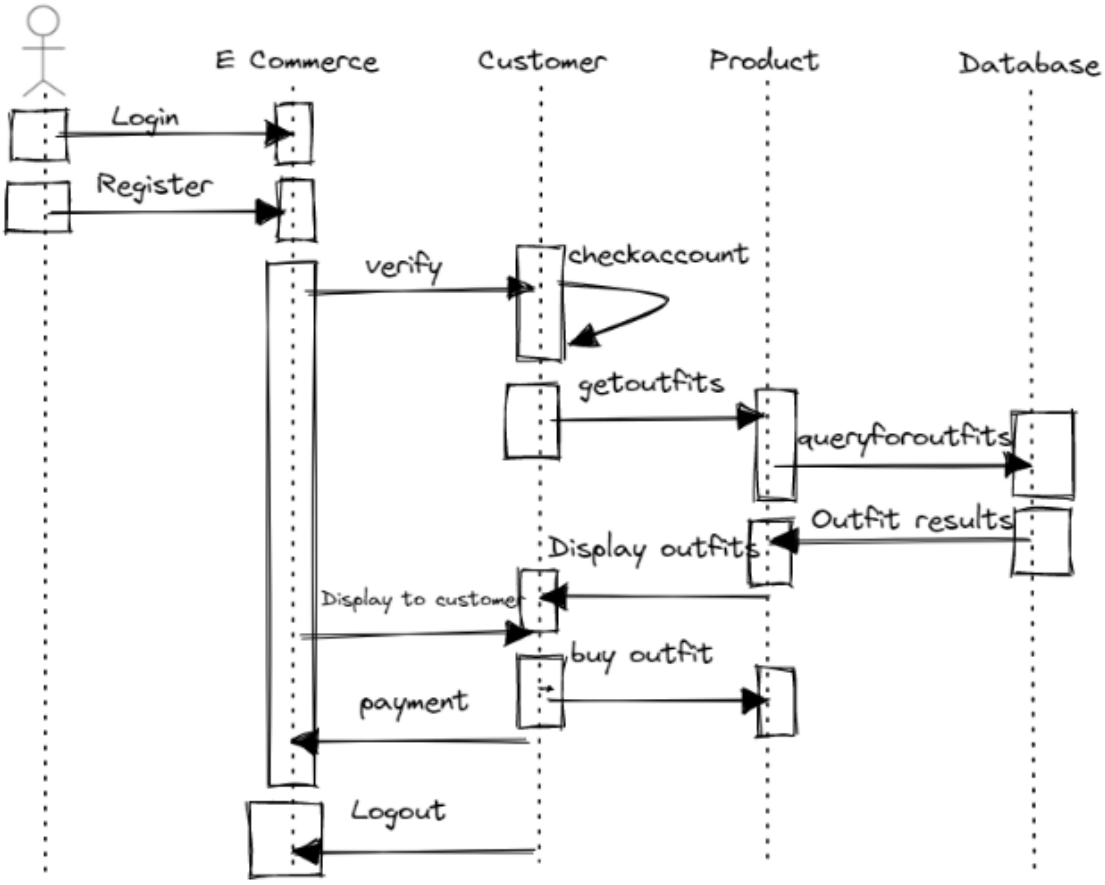


Fig 5.1 Overall Sequence Diagram

6. System Architecture

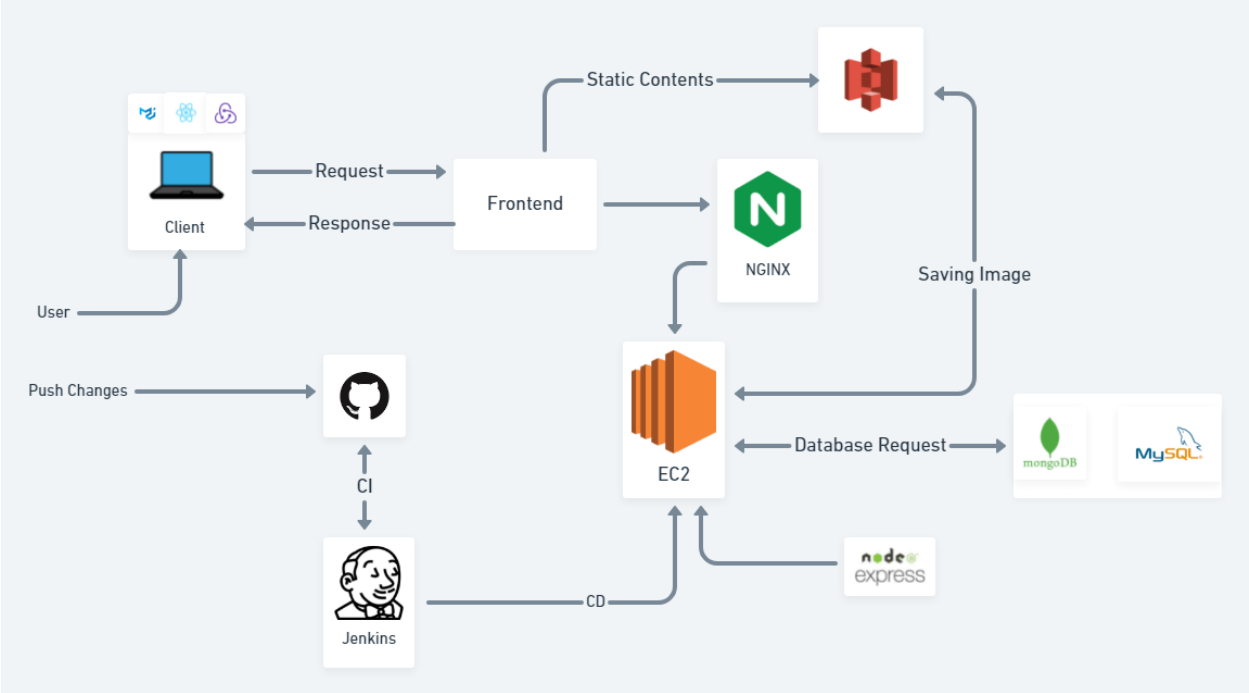


Fig 6.1 High Level System Design

The main components considered:

Front End developed in React js ,Redux and Material UI which will be hosted on Amazon EC2 engine along with Backend in node js express js with Nginx for reverse proxy. 2 databases will also be configured viz, MongoDB and MySQL.

The Outfits images will be stored in Amazon S3 Bucket and its related metadata will be stored in MonoDB

The CI CD process will be handled by Jenkins linked with GitHub repository.

The CI CD Sequence diagram is shown below:

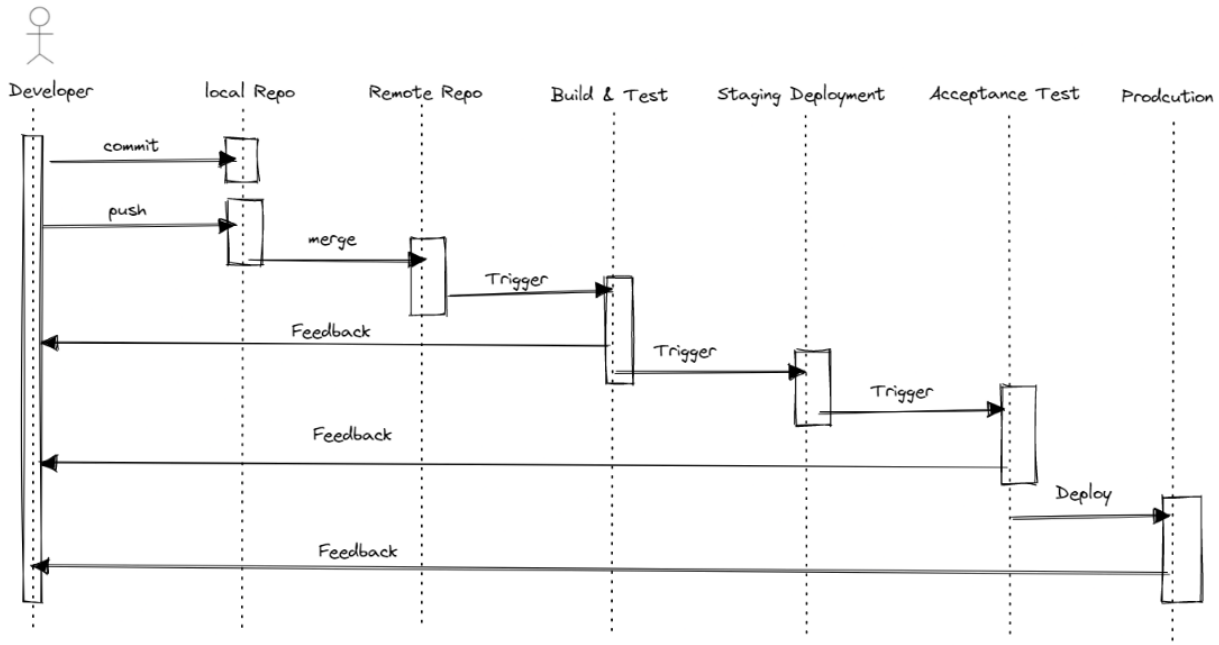
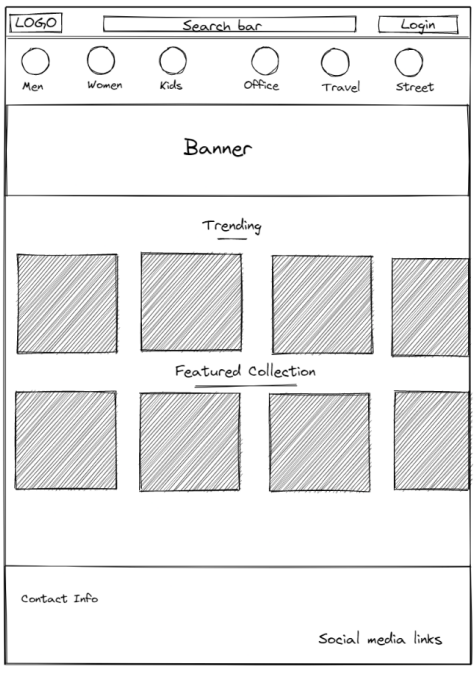
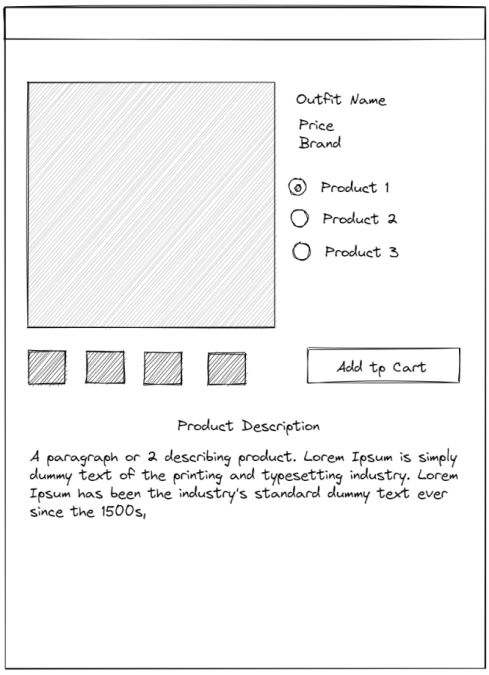
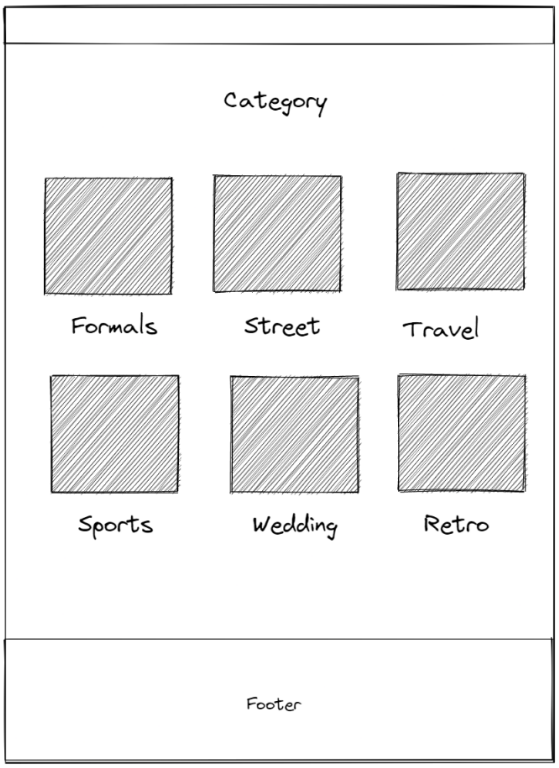


Fig 6.2 Continuous Deployment Sequence Diagram

Wireframes



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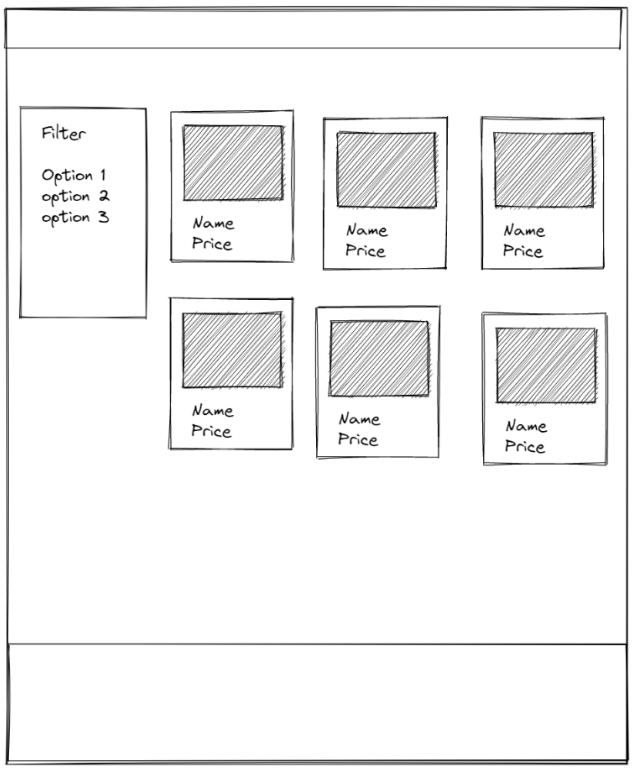
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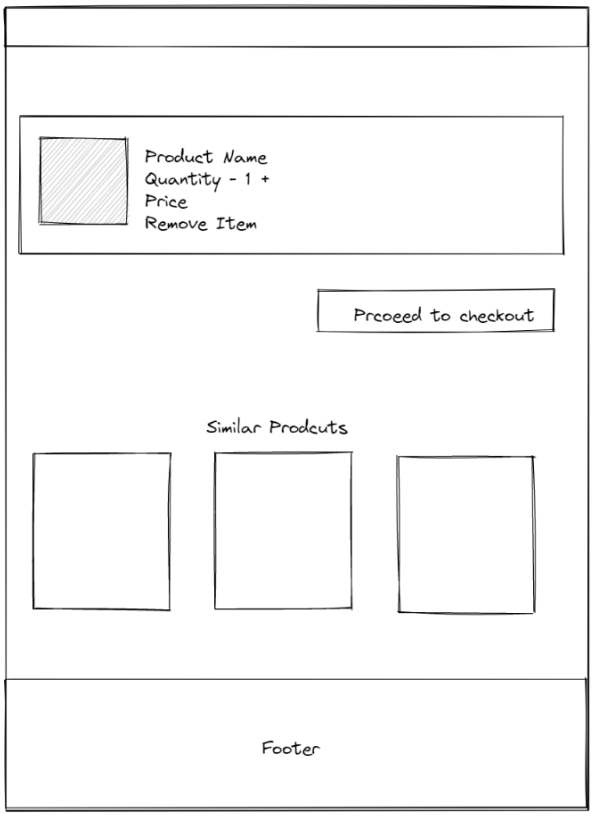
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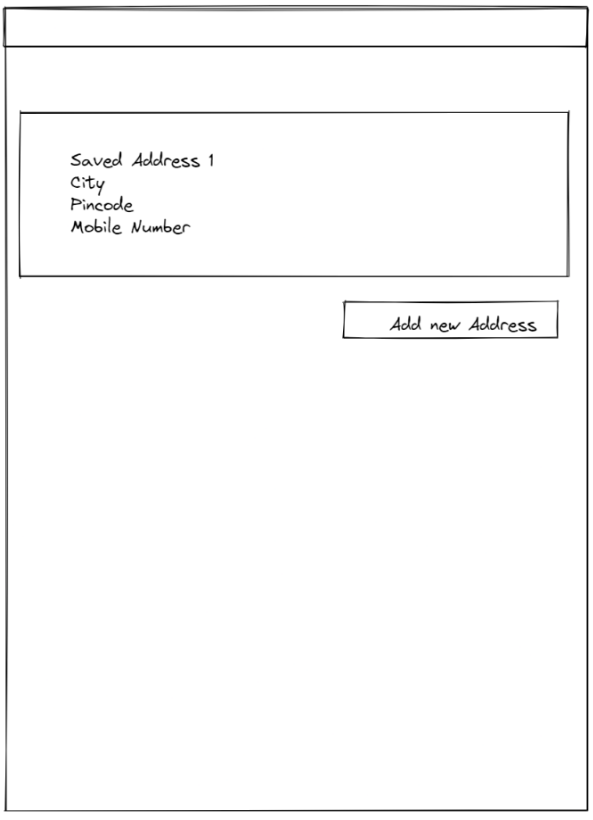
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