TALLINN UNIVERSITY OF TECHNOLOGY
School of Information Technologies

Brajan Kukk IADB223088

# Custom Keyboard Store

Project Proposal

Supervisor: Andres Käver

Tallinn 2024

# Author’s declaration of originality

I hereby certify that I am the sole author of this thesis. All the used materials, references to the literature, and the work of others have been referred to. This thesis has not been presented for examination anywhere else.

Author: Brajan Kukk

04.02.2024

# List of abbreviations and terms

| | |
|---|---|
| PCB | Printed Circuit board |
| CRUD | Create, Read, Update, and Delete |

# Table of contents

1 Introduction ..... 5
2 ERD ..... 6
3 Main client positive flow chart ..... 7
3.1 Store home page ..... 7
3.2 Keyboard Builder page ..... 8
3.3 Store page ..... 9
3.4 Store item page ..... 10
3.5 Checkout page ..... 11
3.6 Checkout page ..... 12
3.7 Order track page ..... 13

# 1 Introduction

It is very difficult to buy custom keyboards in the EU due to most of the sellers being located outside of the EU making them cost a lot. Most of the mainstream stores only sell keyboards that are made by well-established companies limiting customisability. This creates a situation where most of the keyboards are missing some feature or an aesthetically not pleasing in certain environments.

This project tries to solve the problem so that people do not need to make any compromises when buying a keyboard. The problem with the current keyboard market is that most of the mechanical keyboards are geared towards gamers while the membrane keyboards are geared towards office people. What if a person wants a mechanical keyboard in the office that would fit that environment?

All users registered or not can access the keyboard builder and the shop to build the keyboard of their dreams or buy new parts.

Users who are registered can rate all the available items in-store and other people's keyboard builds. People who are registered can save their builds and make them public.

After purchasing something they can see their order status if it is delivered still packed or sent out.

Users who have admin roles can see all the registered accounts and delete/create/edit them. Also, they can edit all the items available in the store or delete them. They have CRUD for every data model.

The complete system involves hardware to produce keyboard components and acquire necessary materials also software for the keyboard PCB, but the author is focusing on the website software only. This project will have support for different languages and also support multiple currencies.

This document will serve as documentation of the project.

# 2 ERD

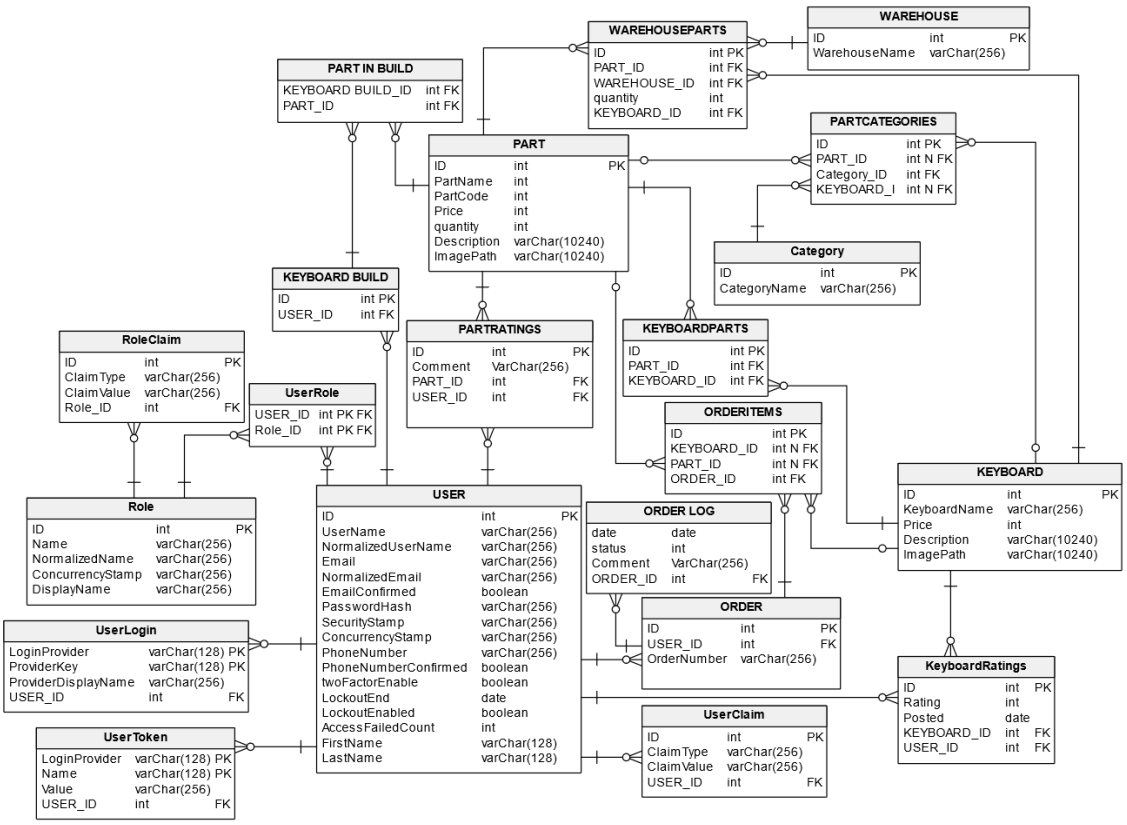


Figure 1Entity relationship model

# 3 Main client positive flow chart

## 3.1 Store home page

The home page of the store will consist of a banner that welcomes clients. It will serve as a starting point for what a client wants to do here. There will also be a couple of items on display that are right now at a discount or just popular at the store. From now on, two different scenarios are possible what might happen next?

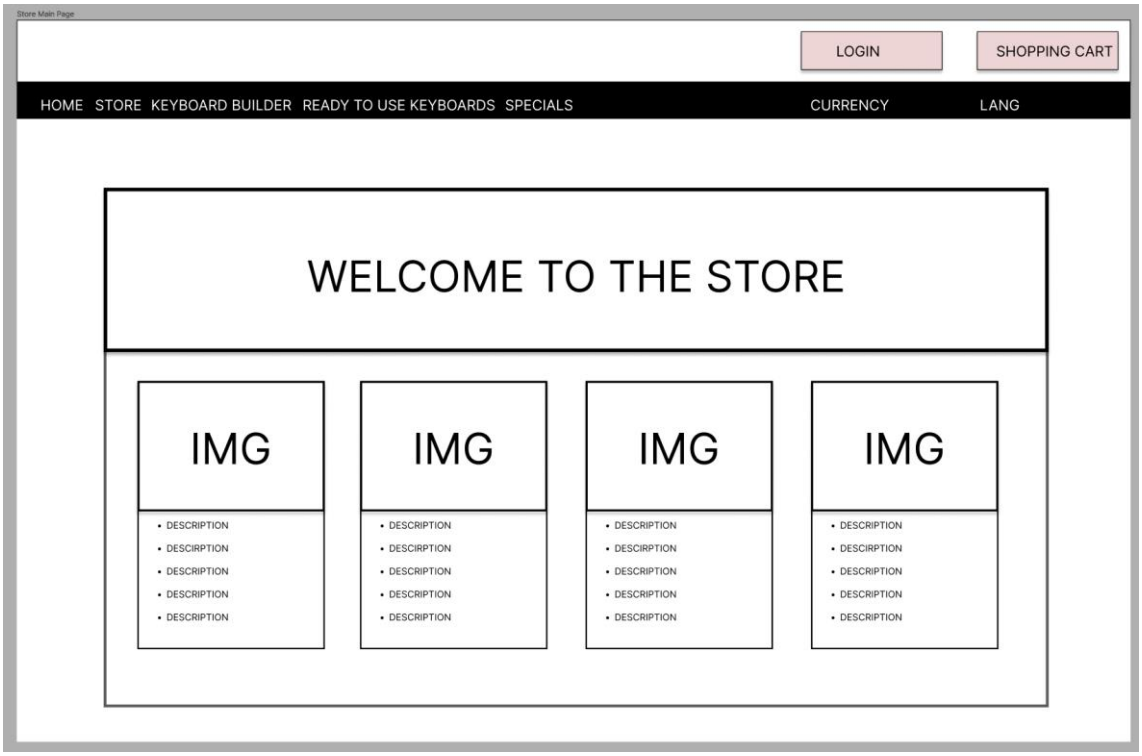


Figure 2 Home Page.

## 3.2 Keyboard Builder page

If a person decides to click on the keyboard builder page, then he will be greeted with a page where all the parts categories are laid out. Here person will be able to start building their custom keyboard with every part handpicked by them. If a person clicks on the add button, they are sent to a store page of that category.

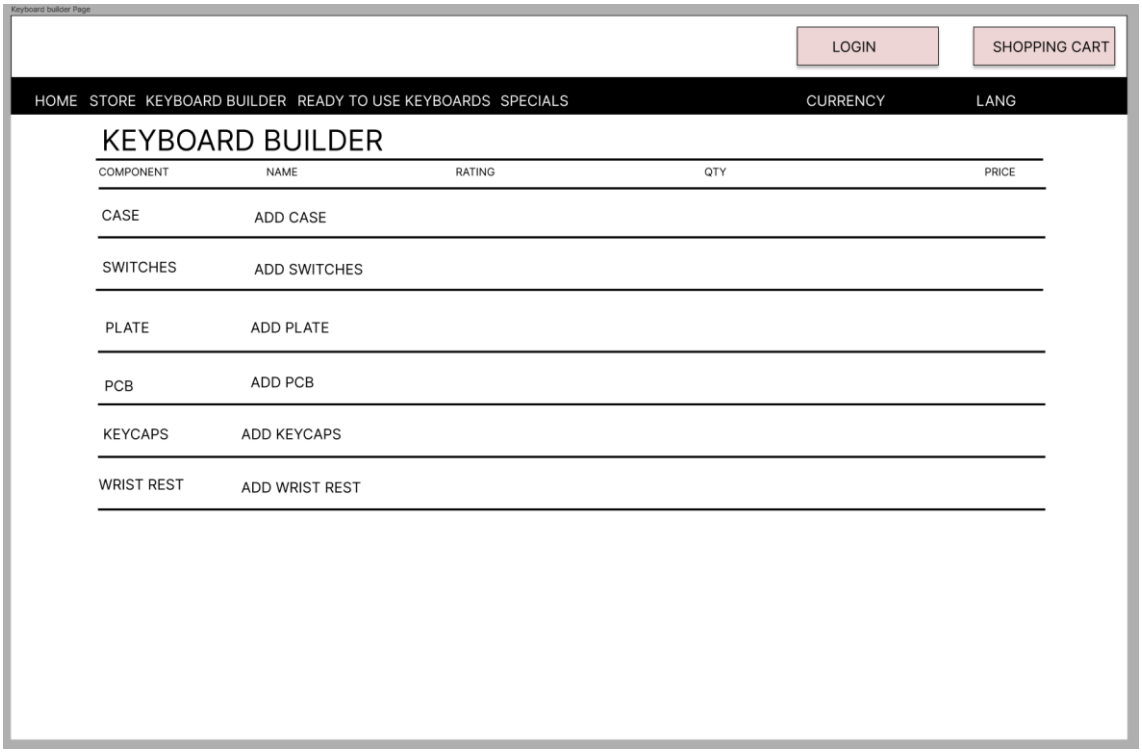


Figure 3 Keyboard builder page

## 3.3 Store page

If the user decides to open the store selection he is greeted with a punch of categories. Users must choose one of the categories and then are sent to the store page where all the store offerings are on display. On the left side of the page is the filters tab where the user can specifically filter for the items they are looking for.

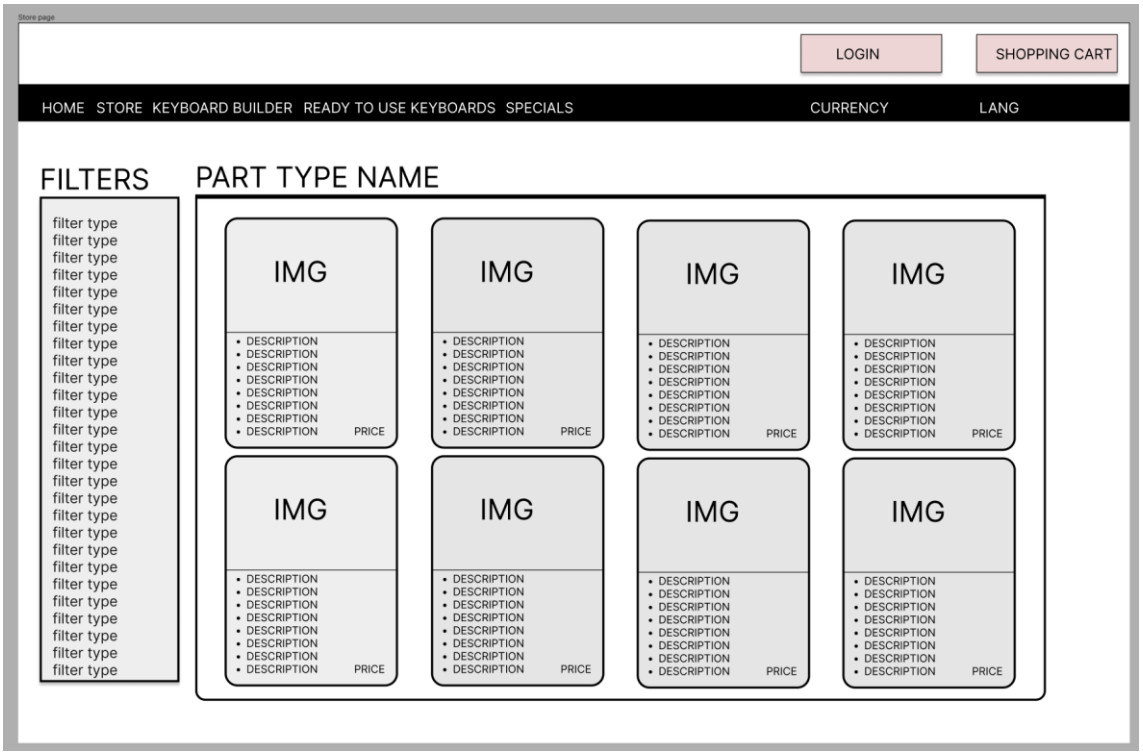


Figure 4 Store page

## 3.4 Store item page

Once the user chooses the item, they want to look up closely and click on it they are sent to the store item page which contains the full description and specifications of the product. The user can choose if they want to add special modifications to the part or look up which warehouses house this product.

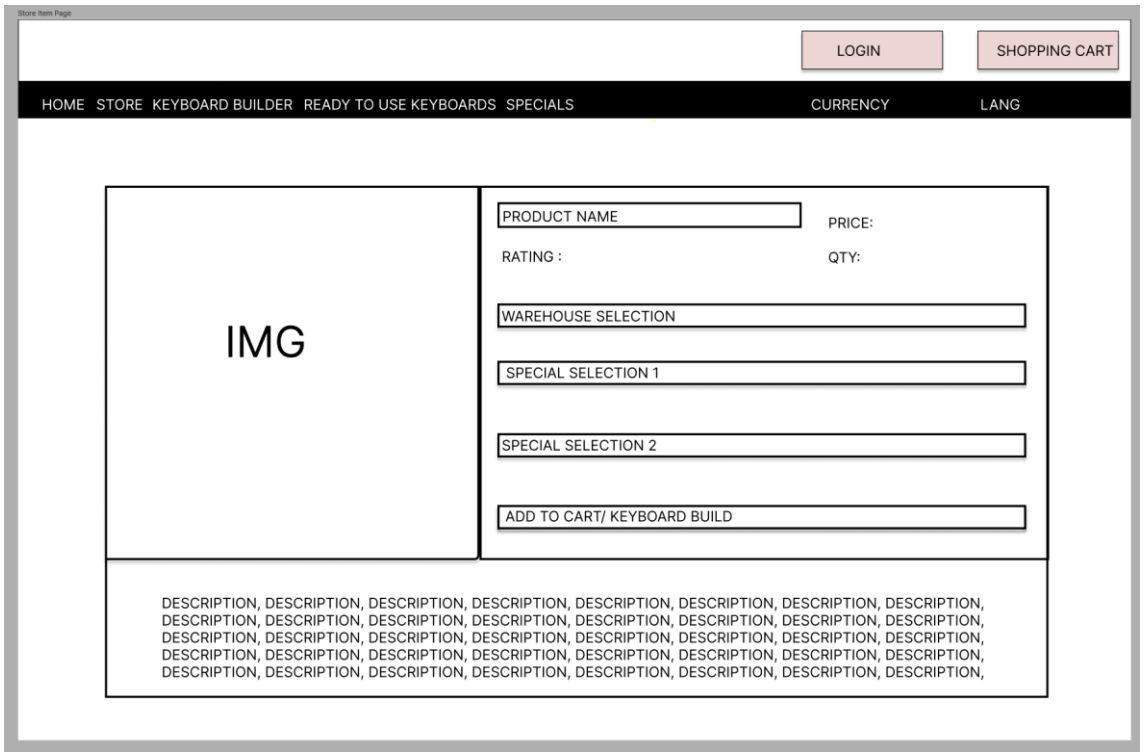


Figure 5 Store item page

## 3.5 Checkout page

If the user is ready to checkout from the store or has completed building their keyboard, they will be sent to the shopping cart page. Here they can change their shopping cart items for the last time by raising item quantity, lowering them all deleting them all together.

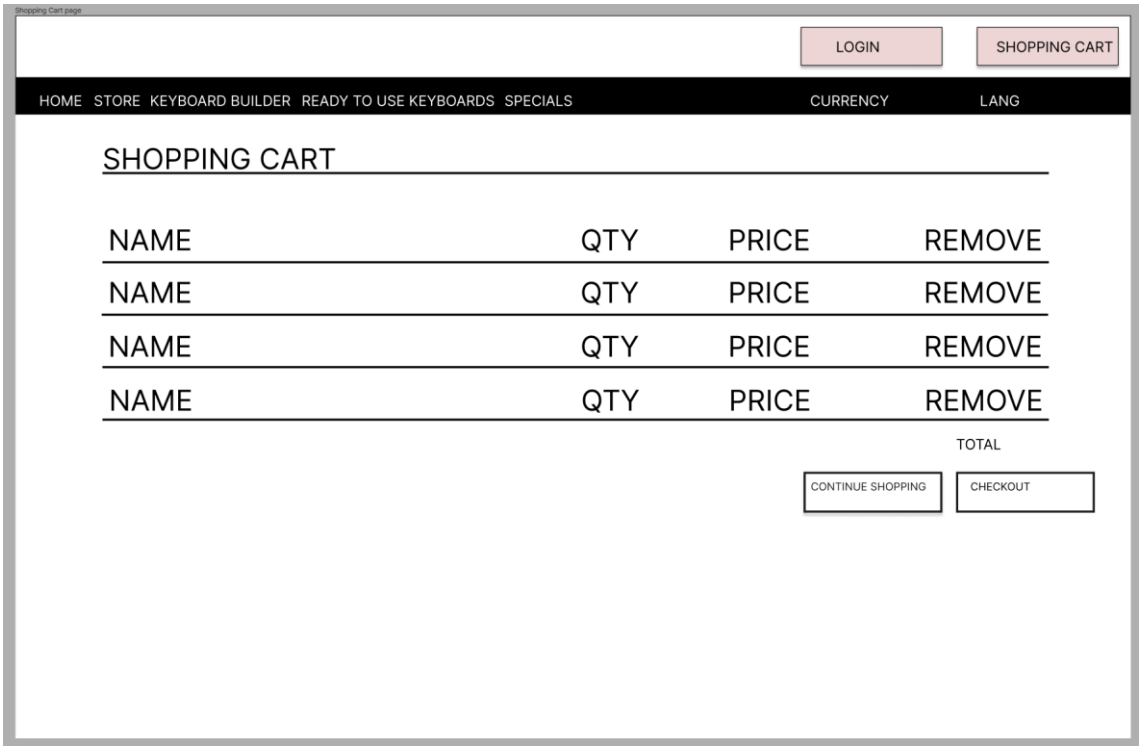


Figure 6 Shopping cart page

## 3.6 Checkout page

If the user is happy with the shopping cart, they will have to click on the checkout button and send it to the checkout page. Here user needs to add their credit card info and the address where they want the package to be sent.

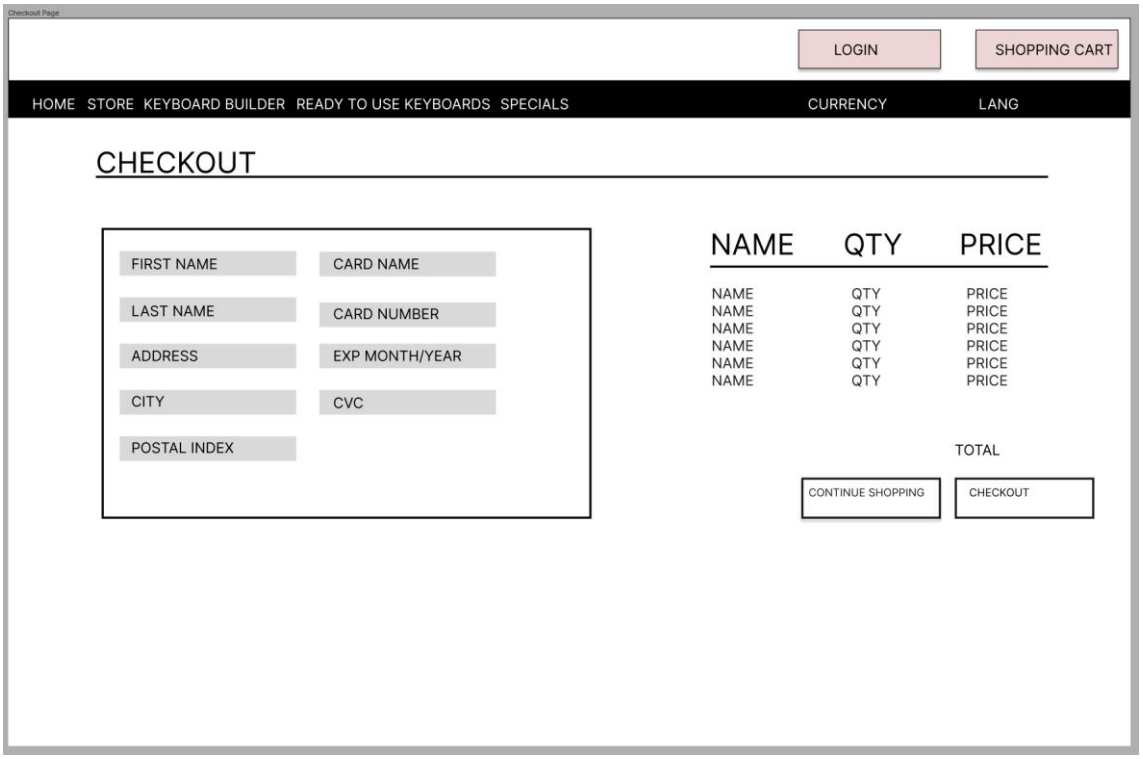


Figure 7 Checkout page.

## 3.7 Order track page

After the user has placed an order, they will be given the order number which they can use to check the order log and status. Also, the store can leave notes about certain issues if needed so the user can always be up to date on what is going on in the store have, they received the order or are there any complications in the store?

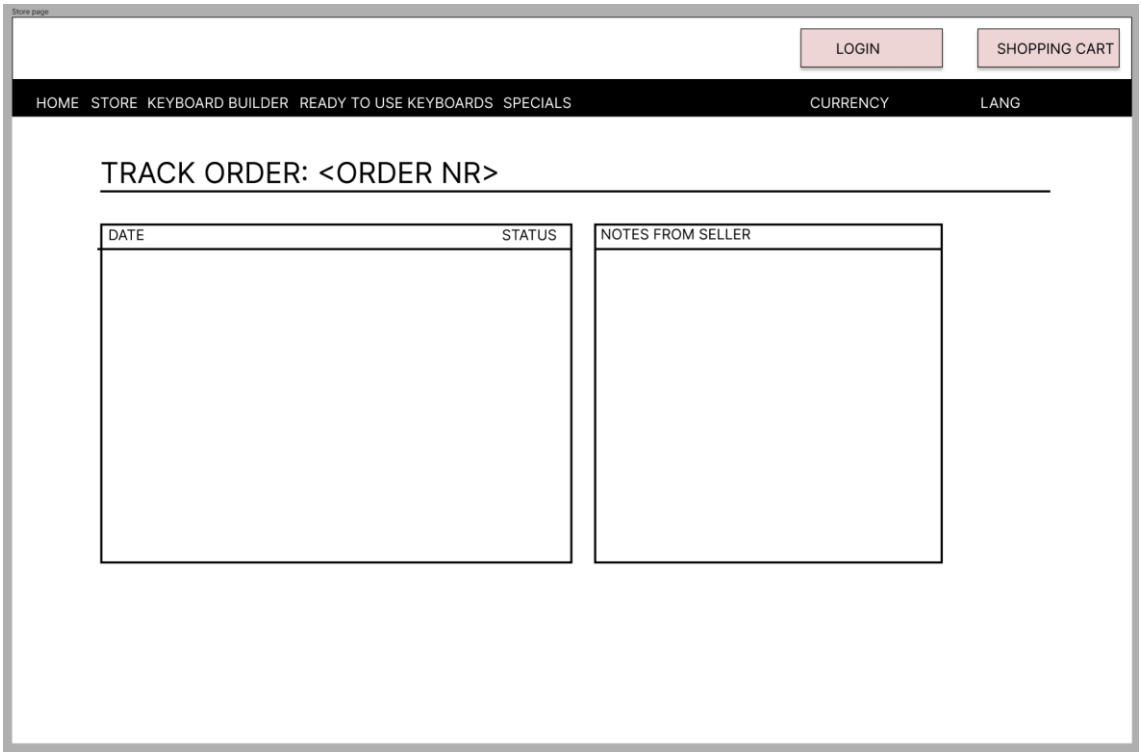


Figure 8 Order tracking page