

MetaKicks

- Virtual Price Tracking LG Styler ShoeCase

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Abstract—As the culture of collecting expensive designer, luxury and limited-edition sneakers grows among the MZ generation – Millennials and Gen Z – LG’s internal research found that these ‘sneakerheads’ would benefit greatly from a solution that not only made their cherished shoes stand out more, but also provided them with the optimal care. and LG provides LG ThinQ applications to connect its home appliances and consumers and provide consumers with a better experience. So our team thought that it would be good to virtualize the ShoeCase and manage it on the ThinQ app. By storing NFT sneakers in a MetaKicks, NFT that exists only virtually is collected as if it were stored in a LG Styler ShoeCase. In addition, designer collaboration and limited edition sneakers resell market has grown a lot, and we decided to create this service to check the resell market price of shoes in real time. Finally, we thought that the culture of collecting shoes could be further activated by taking out the shoe case that was only in my room on the web and creating a culture to share each other’s shoes collections.

TABLE I
ROLE ASSIGNMENTS

Roles	Name	Task description and etc.
User Customer	Kwon Jihyun	User/Customer contemplates what functions should be added from the perspective of users or customers. For example, the 'Meta-Kicks' has a function of realtime price tracking in addition to simply adding shoes in virtual ShoeCase. Consumers also have the need to remotely use these specific functions through the 'LG ThinQ' application. and This app provides the ability to share each other's collections.
Product Designer	Kim Younghwan	A product designer is a person with user-centered thinking ability to sympathize with and understand the user's experiences and plays a role in creating an overall framework for product and services. It performs smooth collaboration with other team members with excellent communication skills. It focuses on the usability of products and services and performs designs to provide better results.

Software Developer	Jeong Youngho	A software developer refers to a person who makes software. This includes discovering a meaningful service and accurately grasping the needs of a user who wants to use the service. In addition, there is a need for the ability to design and code these services and user needs in software. Furthermore, the software developer tests the created program.
Development manager	Lee Jiyun	Development Manager manages the overall part of the project, such as the schedule/planning of the project and the quality of products and services. It also manages/supervises the entire software engineering process of designing, developing, and testing software from accurately grasping user requirements. In addition, in this process, Development Manager helps project participants communicate smoothly.

I. INTRODUCTION

A. Motivation

Shoe cases so far are made of plastic and can only function as storage and display shoes. But The LG Styler ShoeCase creates the ideal environment for storing shoes by protecting against humidity and fabric-discoloring UV light, the Styler ShoeCase represents a great way for shoe enthusiasts to show-off their favorite pairs, offering interior features such as a 360-degree rotating turntable to increase the value as a collection rather than just shoes. NFT shoes are stored online, and real shoes are stored only in the shoe rack and managed separately. By using this, these two collections are managed by one app. We thought it would be good to share the collection, including NFT shoes, with various people to further boost the shoe collection culture. So we make this service by paying attention to the value of the collection. It check the fluctuating resell market price in real time using Kream or StockX's API, Korea

and USA's leading sneakers trade site, and sharing each other's collections through this service.

B. problem statement

- In The case of limited-edition shoes, prices fluctuate significantly over time or depending on events, so collectors who own several shoes find it difficult to know the value of the collections at once.
- The shoe case so far is just a plastic drawer. There is only a storage function and the function of the exhibition is inferior. There are many people who want to manage it like a proper collection.
- NFT shoes can only be stored online or on a hard disk, and real shoes are in ShoeCase, so there is no means to manage both at once
- It is very useful to use a LG Styler ShoeCase to manage sneakers. but there is no means to check the shoes stored at home outside.
- You can't see other people's sneakers collection unless you go their home. In order for the shoe collection community to grow further, it is necessary to have the ability to see collections of many people

C. Research of any relative software

Kream

It is a transaction brokerage platform that connects sellers and buyers anonymously. Similar to trading methods such as stocks and cryptocurrencies, it consists of presenting the price the seller wants to sell and accepting the price. Due to the nature of the asking price transaction, used goods are not handled because the premise that all items are the same is necessary. The main trading items are limited edition products such as clothing and fashion miscellaneous goods, and can be seen as a commonly referred to as a resale trading platform. Unlike general direct transaction platforms, products are traded through the KREAM inspection center. When the seller sends the product to the KREAM inspection center, the KREAM inspects it and sends it to the buyer.

StockX

It serves as an online marketplace, facilitating auctions between sellers and buyers, then collecting transaction and payment fees. Sellers send purchased items to StockX facilities for inspection and verification, then authenticated products are shipped to buyers. StockX features a "stock market-like" variable pricing framework and discloses price histories for specific items. StockX is most known for sneakers and streetwear but also carries other clothing and accessories such as handbags and watches.

LG ThinQ

A representative home appliance management app that provides smart home services based on AI. With this application, you can control not only home appliances, but also all parts of the house, as well as check product status and malfunctions anytime, anywhere. In a situation

in which the market environment is rapidly changing from 'supplier-centered' to 'consumer-centered', LG is providing these services, believing that the role of AI technology has grown.

II. REQUIREMENT ANALYSIS

A. Login

It supports Google login and Apple login by linking Firebase and Flutter. If the login is successful, you will be taken to the main page.

B. Main Page

Users can check the functions in the app at once on the main page.

- 1) My ShoeCase
- 2) Finding Other User
- 3) Favorite ShoeCase

C. My ShoeCase

My ShoeCase page visualizes LG Styler ShoeCase on the web. There is no Shoes in the first entry. There is a pop-up page that writes the name or serial number of the ShoeCase product, then a virtual ShoeCases will be created according to the number of rooms and size of the ShoeCase. A user can nickname the user's ShoeCase.

- 1) Register Shoes by Style Code: There is a button for registering shoes in each section of the ShoeCase. When the user clicks the button, a pop-up window appears, and the user can search style code on the shoes site and register the shoes. For NFT shoes, there is an NFT shoe registration button. When you click the button, a pop-up window appears, and if you enter NFT information for the shoes, you will be registered in the virtual shoe closet like normal shoes.
- 2) Registered Shoes Information: The name and real-time resell price of the shoes displayed on the virtual ShoeCase. When the user clicks the shoes, The product's site will appear to show the information of shoes linking with the shoes site.
- 3) Public/Private Setting: There is a checkbox to determine to show the user's ShoeCase
- 4) The number of heart: Those who have seen user's ShoeCase and like it press the heart. Total number of hearts is displayed.

D. Finding Other User

Other people's ShoeCase is listed only for those allowed to reveal their ShoeCase. The list displays the user's name and the nickname of the ShoeCase. When the user clicks the name of the person the user wants to see, the page switches to the that person's ShoeCase page.

- 1) Search Someone's ShoeCase: You can search the user's nickname and view the published ShoeCase.
- 2) Recommendation: List ShoeCase by number of hearts.

E. Favorite ShoeCase

There is no ShoeCases in the first entry. If you click the heart button on your favorite ShoeCase among other people's ShoeCase. The ShoeCases are registered in my favorites. And Click the ShoeCase button to go to the user's ShoeCase. Sends a notification whenever new shoes are added to your favorite ShoeCase.

- 1) Favorite ShoeCase lists: List your favorite ShoeCases.
- 2) Visit Someone's ShoeCase: If you click the ShoeCase's nickname on the list, app shows that user's ShoeCase Page.

III. DEVELOPMENT ENVIRONMENT

A. Choice of Development platform