Assignment: Building a system to manage the product list at Tiki.

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Project name: Kiti – A Tiki's ripoff ¯_(ツ)_/¯
Project repo: https://github.com/hoangdesu/Kiti-fullstack-React-SpringBoot

Reflection

What technology and architecture did you choose for?

For frontend, I use React.JS as the main framework for building the reactive user interface. The website data is provided by Spring Boot from the backend. The architecture used in this project is client-server where the Spring Boot provides API RESTful services for the frontend to fetch and display the data. For database, I use PostgreSQL to store and query data.

Why did you select that technology and architecture?

React is one of the most popular frontend frameworks as of today thanks to its flexibility in building user web interface. On the other hand, Spring Boot is known as an enterprise level framework thanks for its robust power and high security. Meanwhile, PostgreSQL provides a strong and reliable database management system to store all my data into relational schemas.

Why did you define such attributes for your products and organize such categories?

I have a relative long list of attributes, which has 10 key attributes I think which the most important for an ecommerce website. The id attribute is generated automatically by the server to avoid collision and also used to identify between products. The list includes:
- Id: long
- Product name: string
- Categories: string
- Price: double
- Discount: double
- Added date: LocalDate
- Rating: double
- Seller: string
- In stock: int

Whatever arguments to convince your clients, your boss that your system is elegantly designed

Kiti is designed with a user experience-oriented approach in mind to provide the best experience for both shoppers and admin. It implements the minimalist yet

elegant that allows even new users to quickly know how to navigate around on their first visit. For admins, the system is designed in such a way that it will prevent mistakes from deleting or editing the wrong item with a confirmation check. Overall, the system also has many errors handling techniques to prevent the system from crashing and it can run smoothly. For UI design, please refer to the screenshot section below.
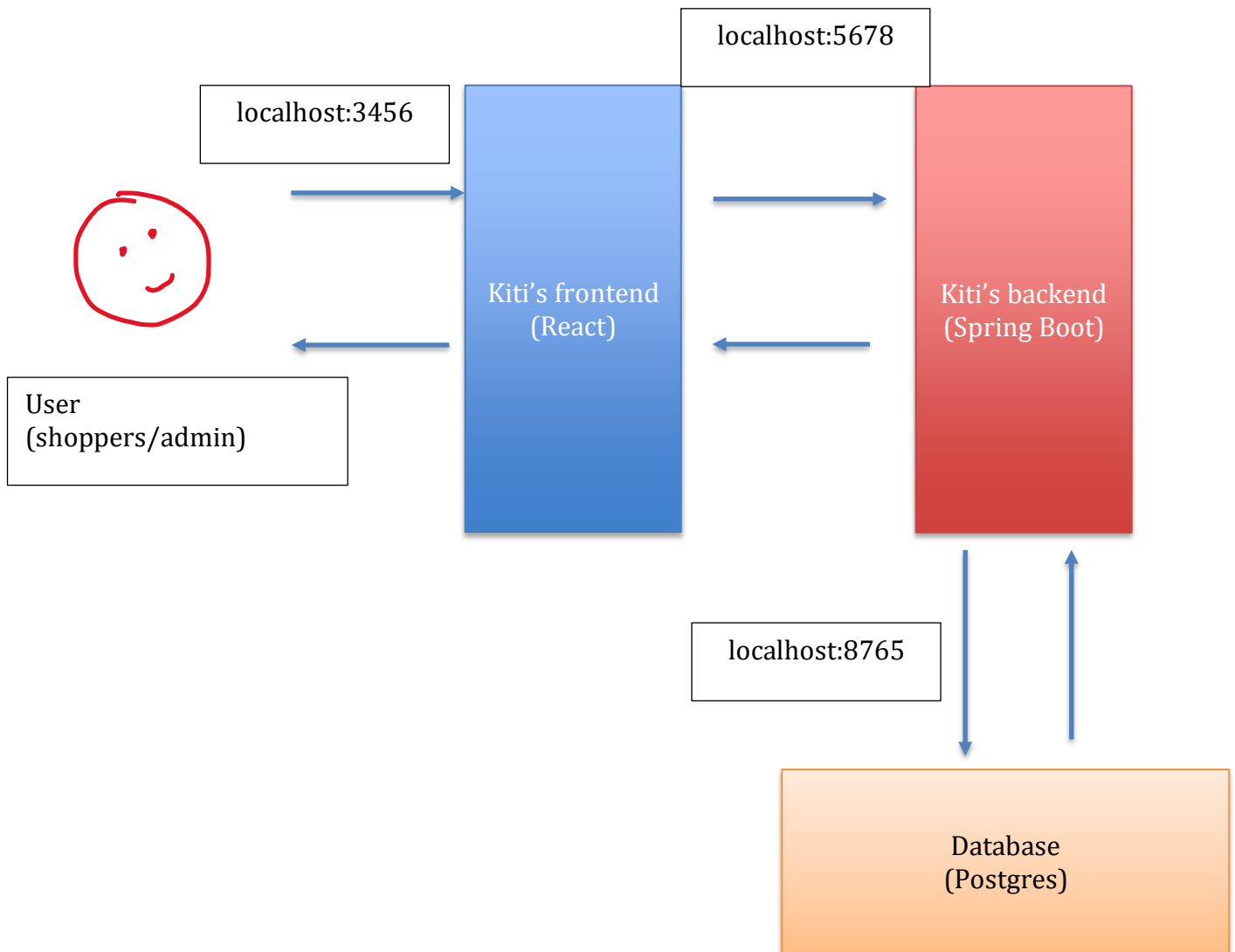
Deployment
The frontend of the system is live and be accessed via:
https://hoangdesu.github.io/Kiti-fullstack-React-SpringBoot/
It would require the backend running locally with a database to fully fetch data.

System design

localhost:5678

localhost:3456

Kiti's frontend
(React)

Kiti's backend
(Spring Boot)

User
(shoppers/admin)

localhost:8765

Database
(Postgres)

Backend: Admin's dashboard
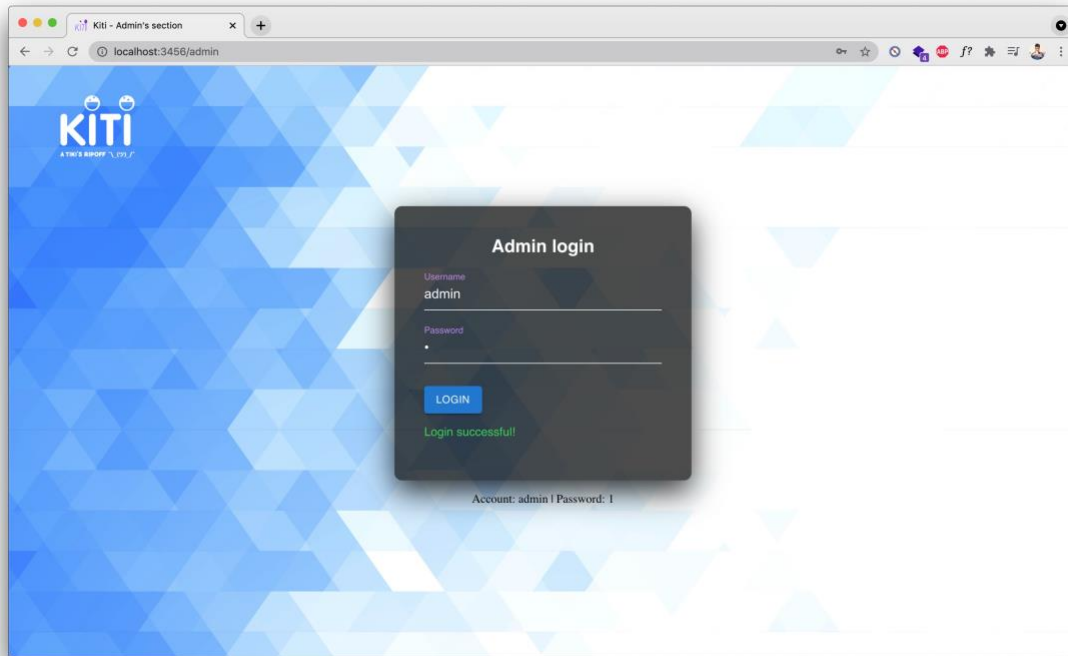
Figure 1 - Admin login page

Admin's inventory management dashboard

Add new product form

Kiti's Admin Dashboard

ADD A NEW PRODUCT   LOGOUT

Inventory

Total: 13 products

New product

Add a new product to the database

Product name *   Price *   ₫

Category
Electronics   ▼   Discount   %

Date
mm/dd/yyyy   📅

Seller's name

Image URL

CANCEL   ADD PRODUCT

id	Image	Pr...	...count	Added date	Rating	Seller	In stock	Action
1		Apple AirPods (2nd Generation)		2018-06-26	4.5	Apple	120	
2		Rich Dad Poor Dad: What the Rich Teach Their K		2017-04-11	4	Robert Kiyosaki	71	
3		Apple iPhone 13 Pro Max (256GB, Gold)		2011-10-19	4.5	Apple	262	
4		Apple Macbook Pro 16 inch (M1 Max) 2021 - RAM		2021-11-07	4	Apple	3120	
5		LG OLED C1 Series 65" Alexa Built-in 4k Smart T, Dolby Cinema, WiSA Ready, Gaming Mode (OLEI		2019-04-06	4	LG	143	
6		Oculus Quest 2 — Advanced All-In-One Virtual Reality Headset — 128 GB	Electronics	5.890.000 ₫	0%	2017-04-14	3.5	Oculus	38	
7		Keychron K2 Wireless Mechanical Keyboard (Version 2)	Electronics	3.425.000 ₫	45%	2020-08-19	5	Keychron	83	

Delete confirmation modal

Kiti's Admin Dashboard

ADD A NEW PRODUCT   LOGOUT

Inventory

Total: 13 products

Confirm Product Delete

Are you sure you want to delete "Rich Dad Poor Dad: What the Rich Teach Their Kids About Money That the Poor and Middle Class Do Not!" from the database? This process cannot be undone!
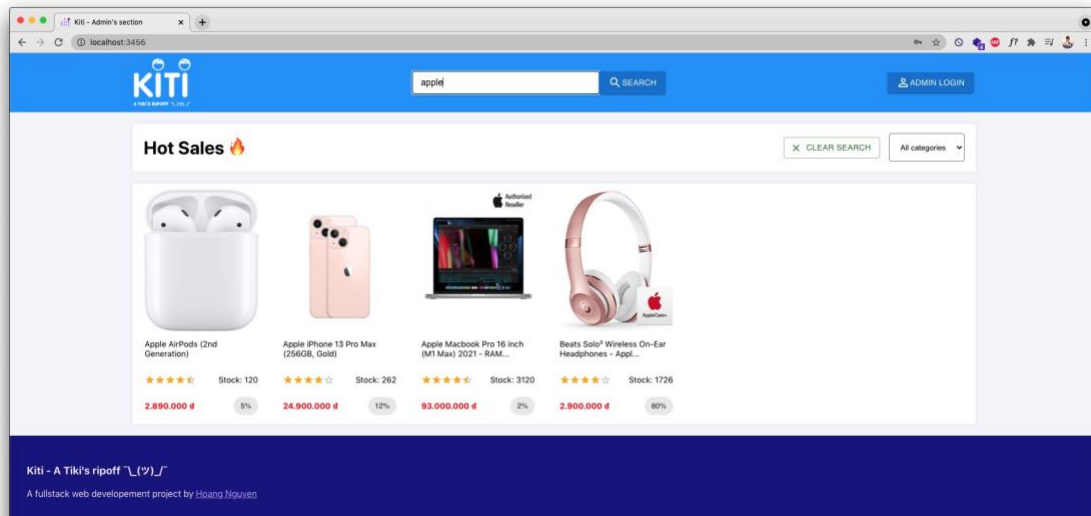
CANCEL   DELETE NOW!

id	Image	Product name	Categories	Price	Discount	Added date	Rating	Seller	In stock	Action
1		Apple AirPods (2nd Generation)				2018-06-26	4.5	Apple	120	
2		Rich Dad Poor Dad: What the Rich Teach Their K				2017-04-11	4	Robert Kiyosaki	71	
3		Apple iPhone 13 Pro Max (256GB, Gold)				2011-10-19	4.5	Apple	262	
4		Apple Macbook Pro 16 inch (M1 Max) 2021 - RAM 32GB / SSD 1TB	Computers	93.000.000 ₫	2%	2021-11-07	4	Apple	3120	
5		LG OLED C1 Series 65" Alexa Built-in 4k Smart TV (3840 x 2160), 120Hz Refresh Rate, AI-Powered 4K, Dolby Cinema, WiSA Ready, Gaming Mode (OLED65C1PUB, 2021)	Electronics	2.693.000 ₫	9%	2019-04-06	4	LG	143	
6		Oculus Quest 2 — Advanced All-In-One Virtual Reality Headset — 128 GB	Electronics	5.890.000 ₫	0%	2017-04-14	3.5	Oculus	38	
7		Keychron K2 Wireless Mechanical Keyboard (Version 2)	Electronics	3.425.000 ₫	45%	2020-08-19	5	Keychron	83	

Frontend: Kiti's storefront
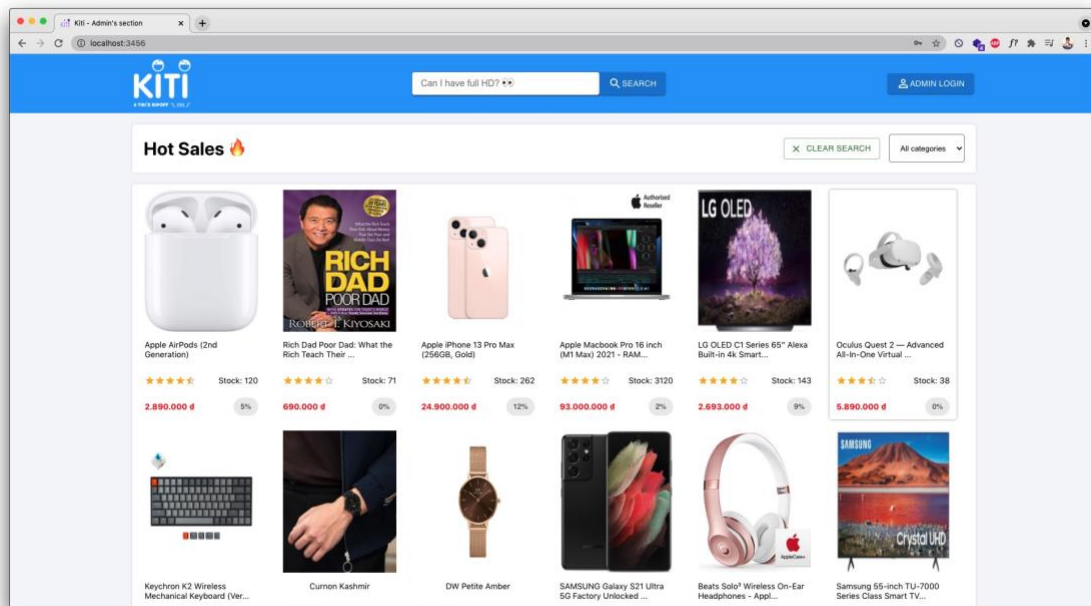
User can search for an item from a product name or other information related to that product

User can filter by categories