

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

Student name: Nguyen Quoc Hoang

Student ID: s3697305

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 ReactJS 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.

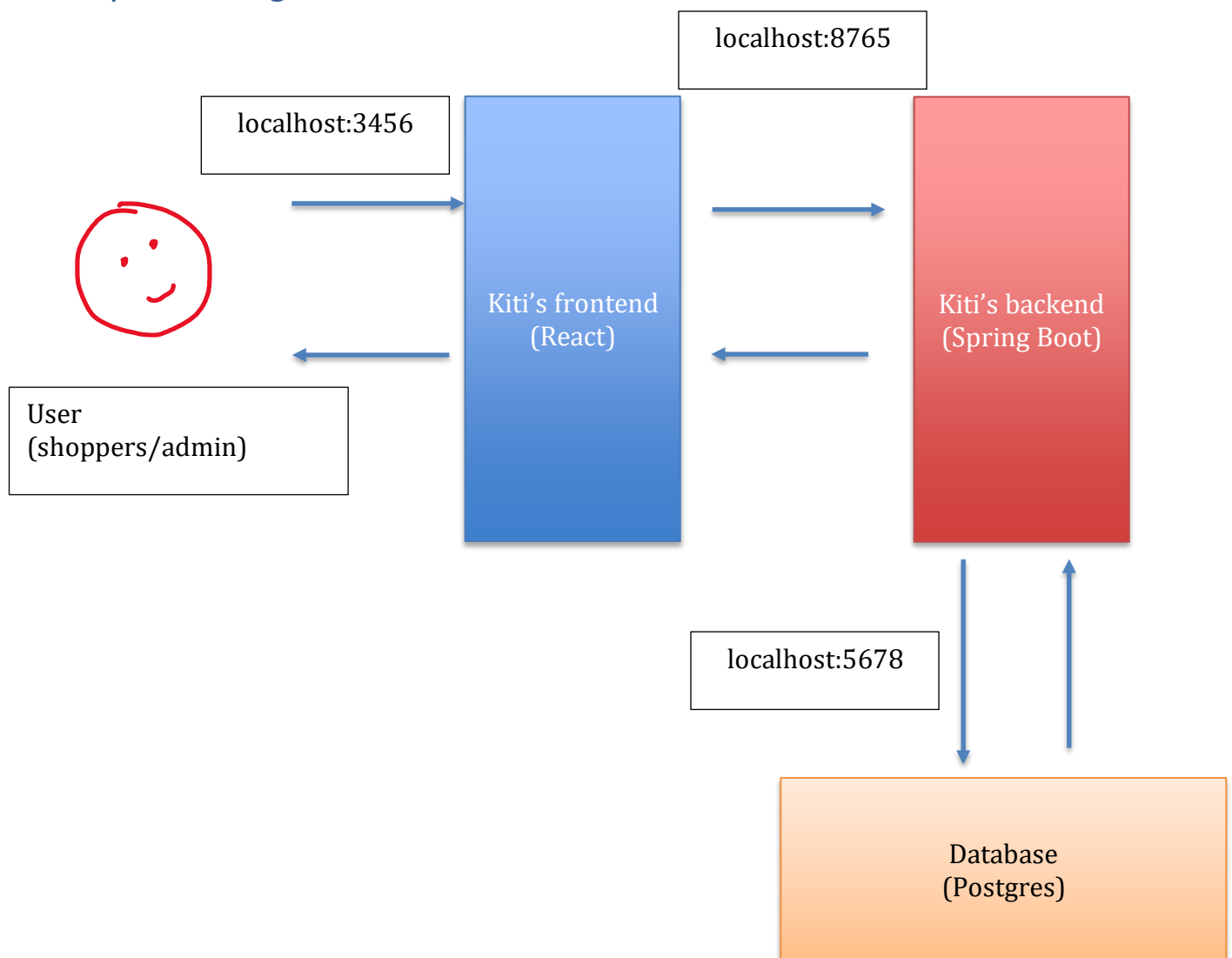
Deployment

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



Backend: Admin's dashboard

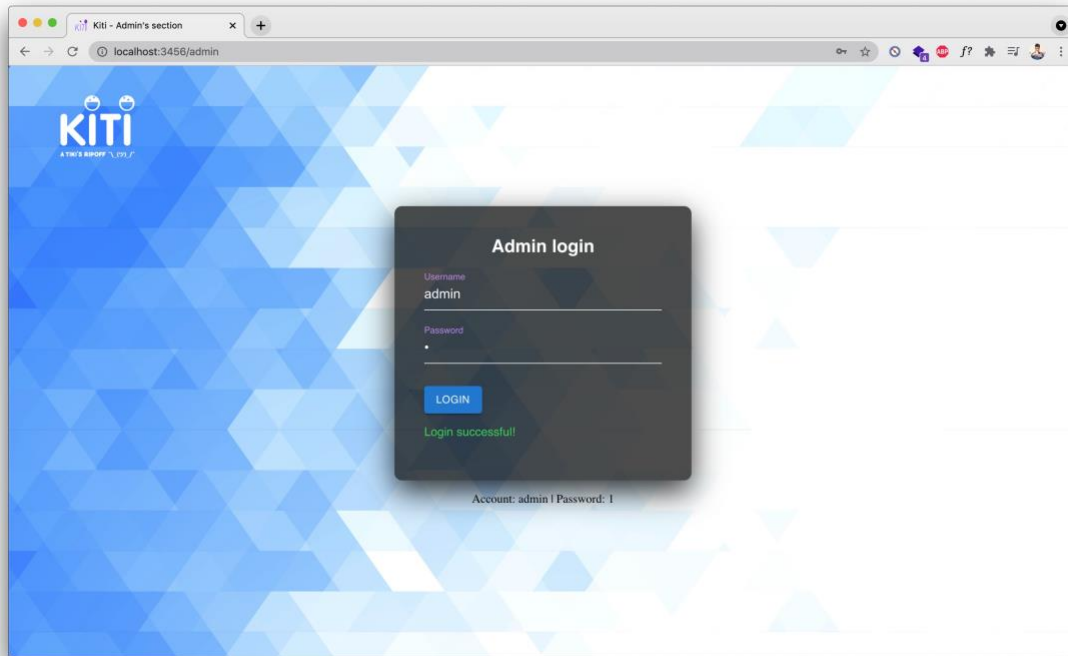
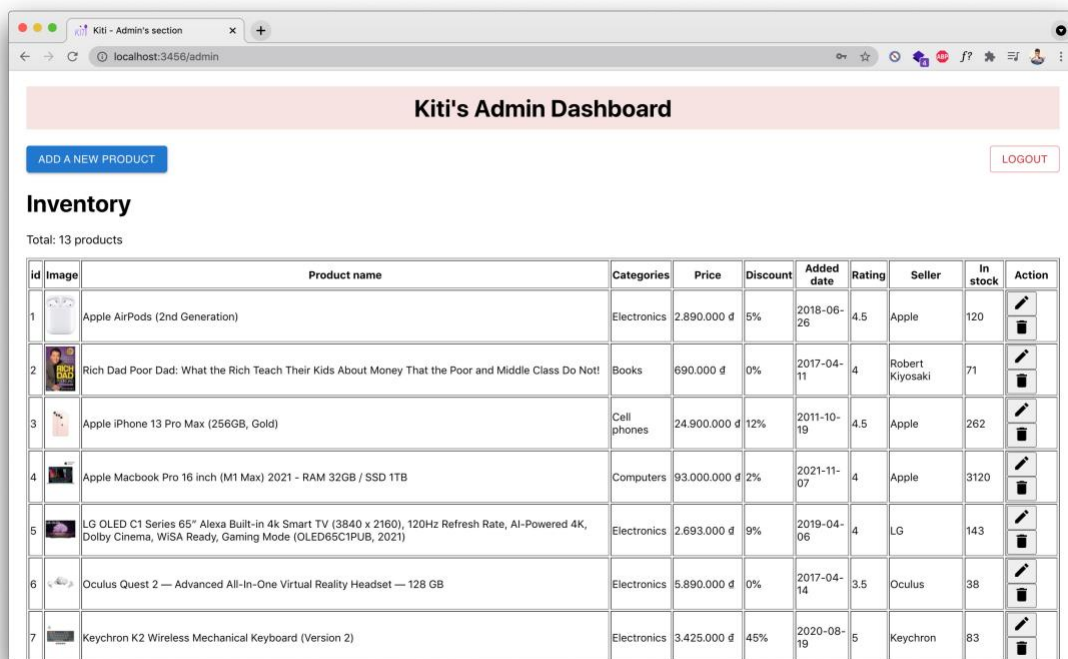


Figure 1 - Admin login page

Admin's inventory management dashboard



Add new product form

The screenshot shows the 'Admin's section' of 'Kiti's Admin Dashboard' at localhost:3456/admin. A 'New product' modal is open, allowing the user to add a new product to the database. The modal contains the following fields:

- Product name *
- Price * ₺
- Category (Dropdown menu, currently set to 'Electronics')
- Discount %
- Date (mm/dd/yyyy)
- Seller's name
- Image URL

Buttons at the bottom of the modal are 'CANCEL' and 'ADD PRODUCT'. In the background, the 'Inventory' section shows a table with 13 products. The table has columns: id, Image, Product name, Categories, Price, Discount, Added date, Rating, Seller, In stock, and Action.

id	Image	Product name	Categories	Price	Discount	Added date	Rating	Seller	In stock	Action
1		Apple AirPods (2nd Generation)	Electronics	5.890.000 ₺	0%	2018-06-26	4.5	Apple	120	
2		Rich Dad Poor Dad: What the Rich Teach Their Kids About Money That the Poor and Middle Class Do Not!	Books	71		2017-04-11	4	Robert Kiyosaki	71	
3		Apple iPhone 13 Pro Max (256GB, Gold)	Electronics	262		2011-10-19	4.5	Apple	262	
4		Apple Macbook Pro 16 inch (M1 Max) 2021 - RAM 32GB / SSD 1TB	Computers	3120		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	143		2019-04-06	4	LG	143	
6		Oculus Quest 2 — Advanced All-In-One Virtual Reality Headset — 128 GB	Electronics	38		2017-04-14	3.5	Oculus	38	
7		Keychron K2 Wireless Mechanical Keyboard (Version 2)	Electronics	83		2020-08-19	5	Keychron	83	

Delete confirmation modal

The screenshot shows the 'Admin's section' of 'Kiti's Admin Dashboard' at localhost:3456/admin. A 'Confirm Product Delete' modal is open, asking for confirmation to delete a product. The modal contains the following text:

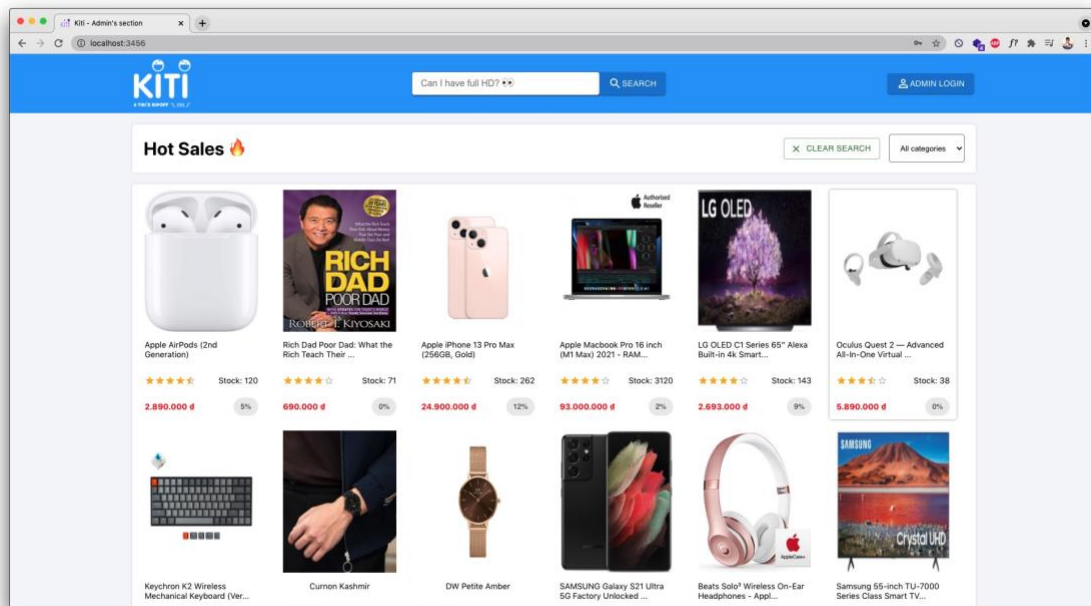
Confirm Product Delete

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!

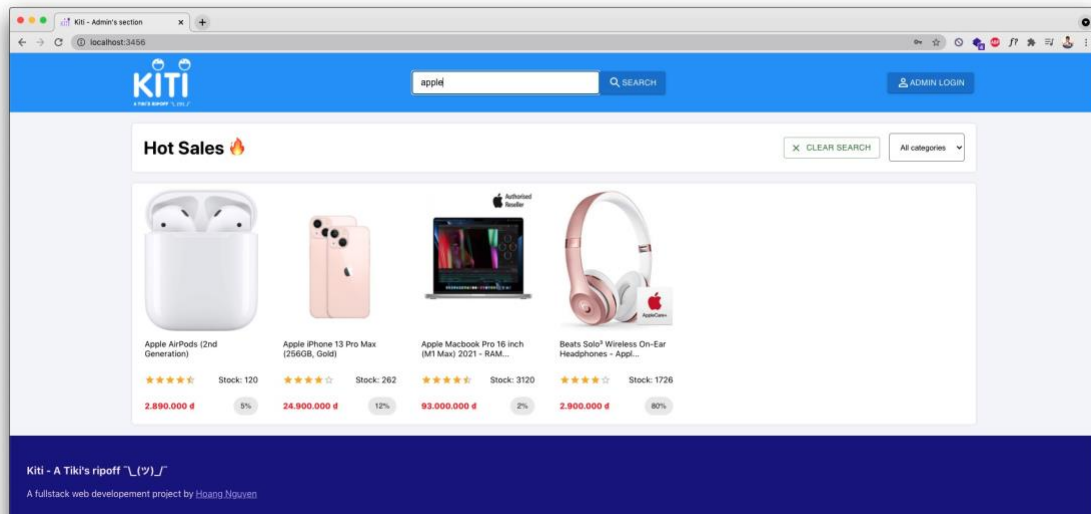
Buttons at the bottom of the modal are 'CANCEL' and 'DELETE NOW!'. In the background, the 'Inventory' section shows a table with 13 products. The table has columns: id, Image, Product name, Categories, Price, Discount, Added date, Rating, Seller, In stock, and Action.

id	Image	Product name	Categories	Price	Discount	Added date	Rating	Seller	In stock	Action
1		Apple AirPods (2nd Generation)	Electronics	5.890.000 ₺	0%	2018-06-26	4.5	Apple	120	
2		Rich Dad Poor Dad: What the Rich Teach Their Kids About Money That the Poor and Middle Class Do Not!	Books	71		2017-04-11	4	Robert Kiyosaki	71	
3		Apple iPhone 13 Pro Max (256GB, Gold)	Electronics	262		2011-10-19	4.5	Apple	262	
4		Apple Macbook Pro 16 inch (M1 Max) 2021 - RAM 32GB / SSD 1TB	Computers	3120		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	143		2019-04-06	4	LG	143	
6		Oculus Quest 2 — Advanced All-In-One Virtual Reality Headset — 128 GB	Electronics	38		2017-04-14	3.5	Oculus	38	
7		Keychron K2 Wireless Mechanical Keyboard (Version 2)	Electronics	83		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

