

A Price Comparison System Exploiting the Potential of Bulk Web Scrapping

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Introduction

Consumers face challenges in manually visiting various websites, navigating through different interfaces, and analyzing prices, resulting in a time-consuming and cumbersome process. This limits their ability to make informed purchasing decisions and find the best deals.

There is a need for a centralized price comparison system that aggregates and presents product prices from different platforms, simplifying the comparison process and empowering users with comprehensive and real-time information.

The Problems

Limited Price Transparency

Consumers face difficulty in comparing prices across multiple e-commerce platforms due to the lack of a centralized and comprehensive system for aggregating and presenting real-time product prices.

Time-Consuming Research

Manual price comparison requires users to visit numerous websites and navigate through different interfaces, resulting in a time-consuming and cumbersome process, hindering their ability to make informed purchasing decisions.

Inefficient Decision-Making

The absence of an efficient price comparison solution restricts consumers' ability to identify the best deals and obtain the most value for their money, leading to suboptimal purchasing decisions and potential financial loss.

Objective

O1

Develop a centralized price comparison website that aggregates real-time product prices from various e-commerce platforms, providing consumers with a convenient platform for comparing prices and making informed purchasing decisions.

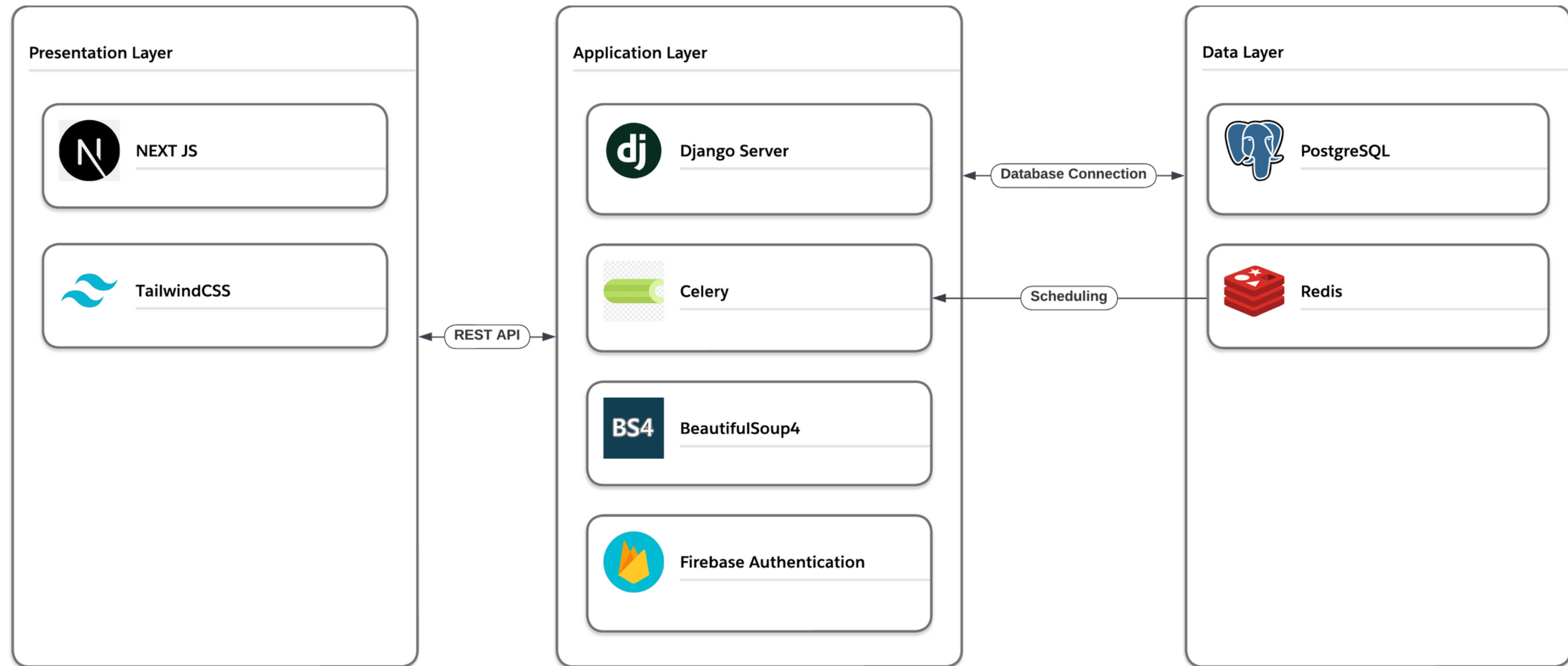
O2

Enhance user experience by implementing features such as advanced search filters, product reviews, and ratings to assist users in finding the best deals, saving time, and increasing overall satisfaction.

O3

Ensure scalability and reliability of the system by utilizing a three-tier architecture, implementing efficient data storage and retrieval mechanisms, and employing technologies that can handle large datasets and high user traffic.

System Architecture



System Architecture



Frontend

NextJS
ReactJS
TailwindCSS



Backend

Django
Django Rest Framework
Celery



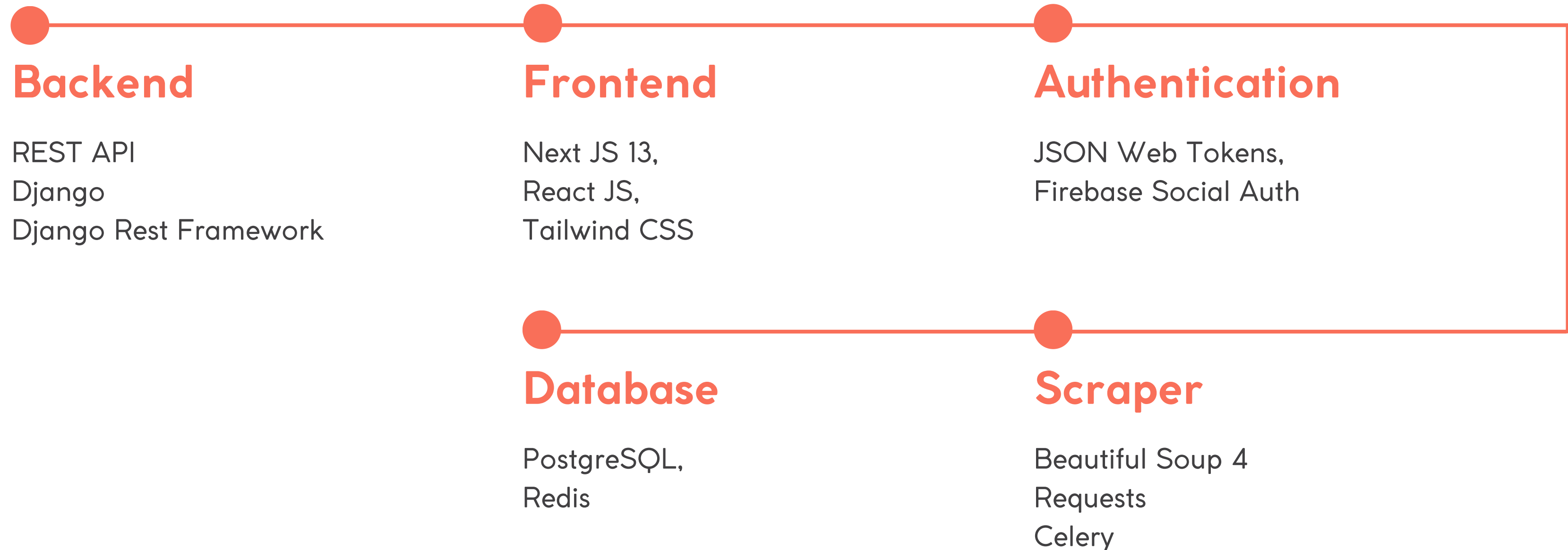
Database

PostgreSQL
Redis

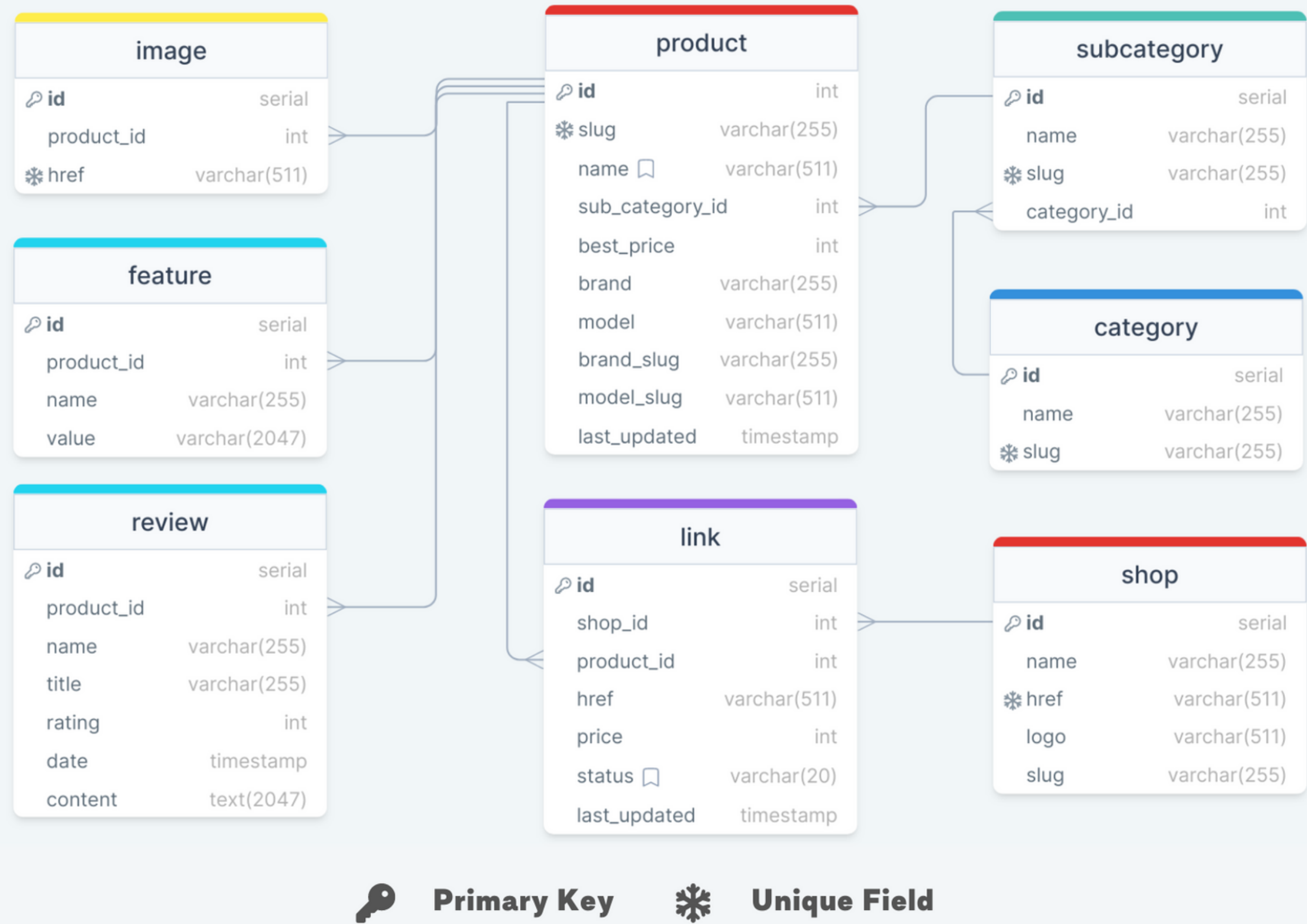
Features

- O1 Real-time Price Comparison
- O2 Advanced Search Filters
- O3 Product Reviews and Ratings
- O4 User-Friendly Interface
- O5 Scheduled Web Scraping
- O6 Secure Authentication
- O7 Scalability and Performance
- O8 Mobile Responsiveness
- O9 Saved Favorites and Price Alerts
- 10 Data Visualization

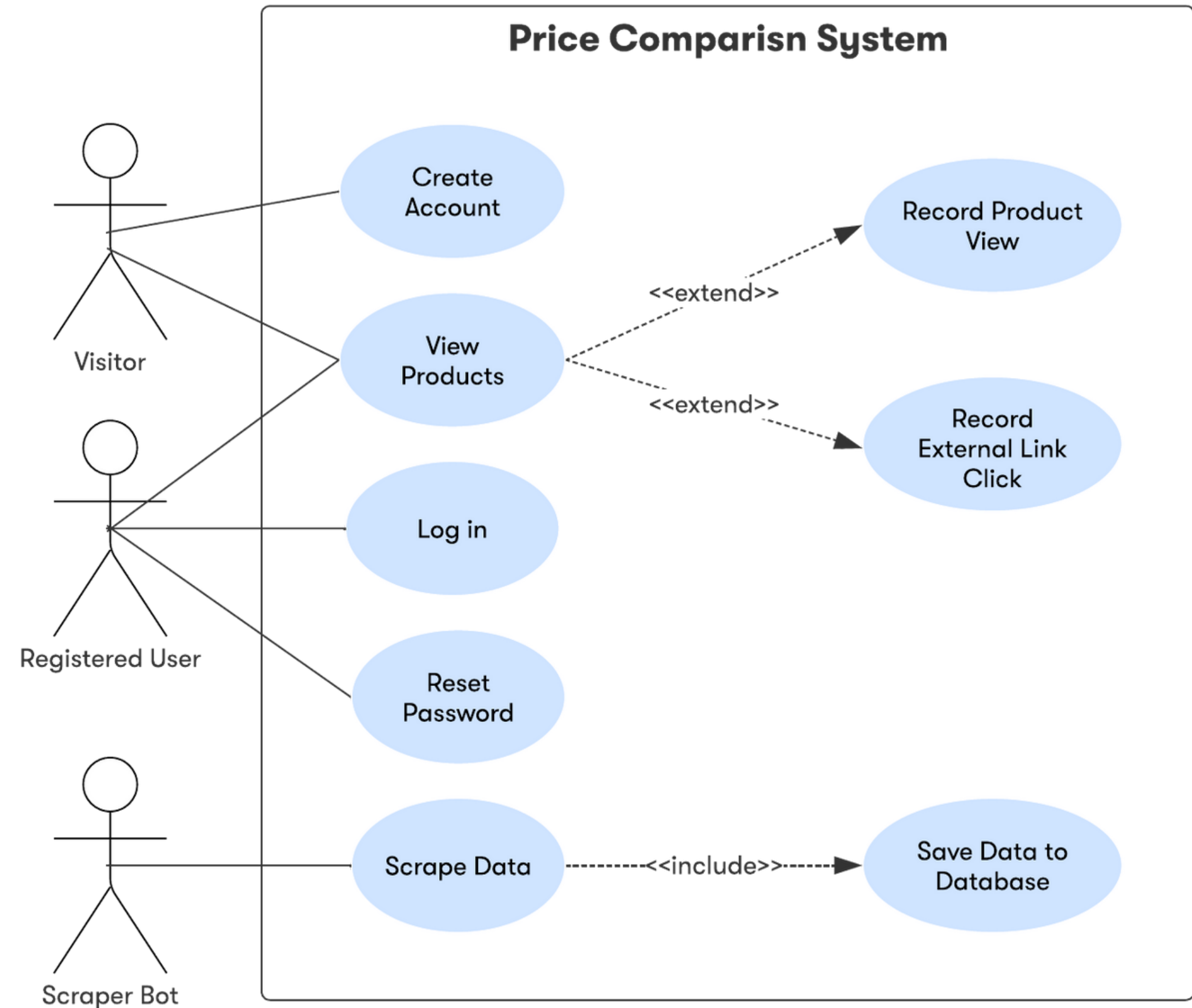
Implementation



Schema Diagram

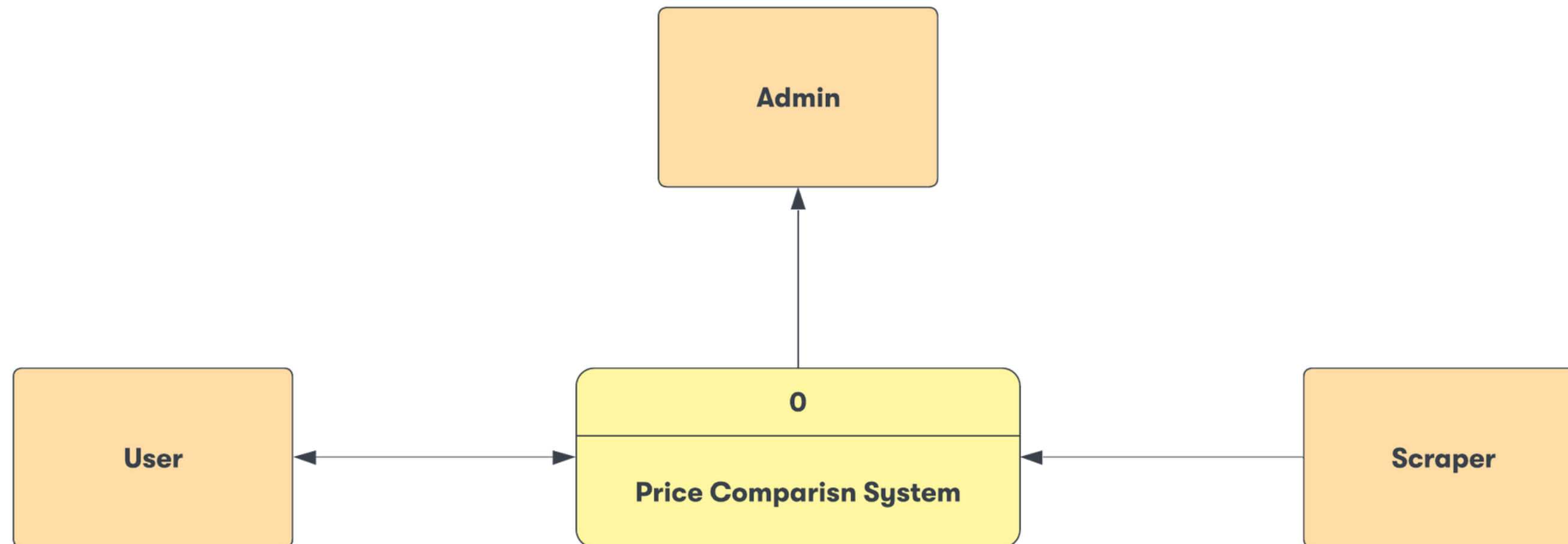


Use Case Diagram

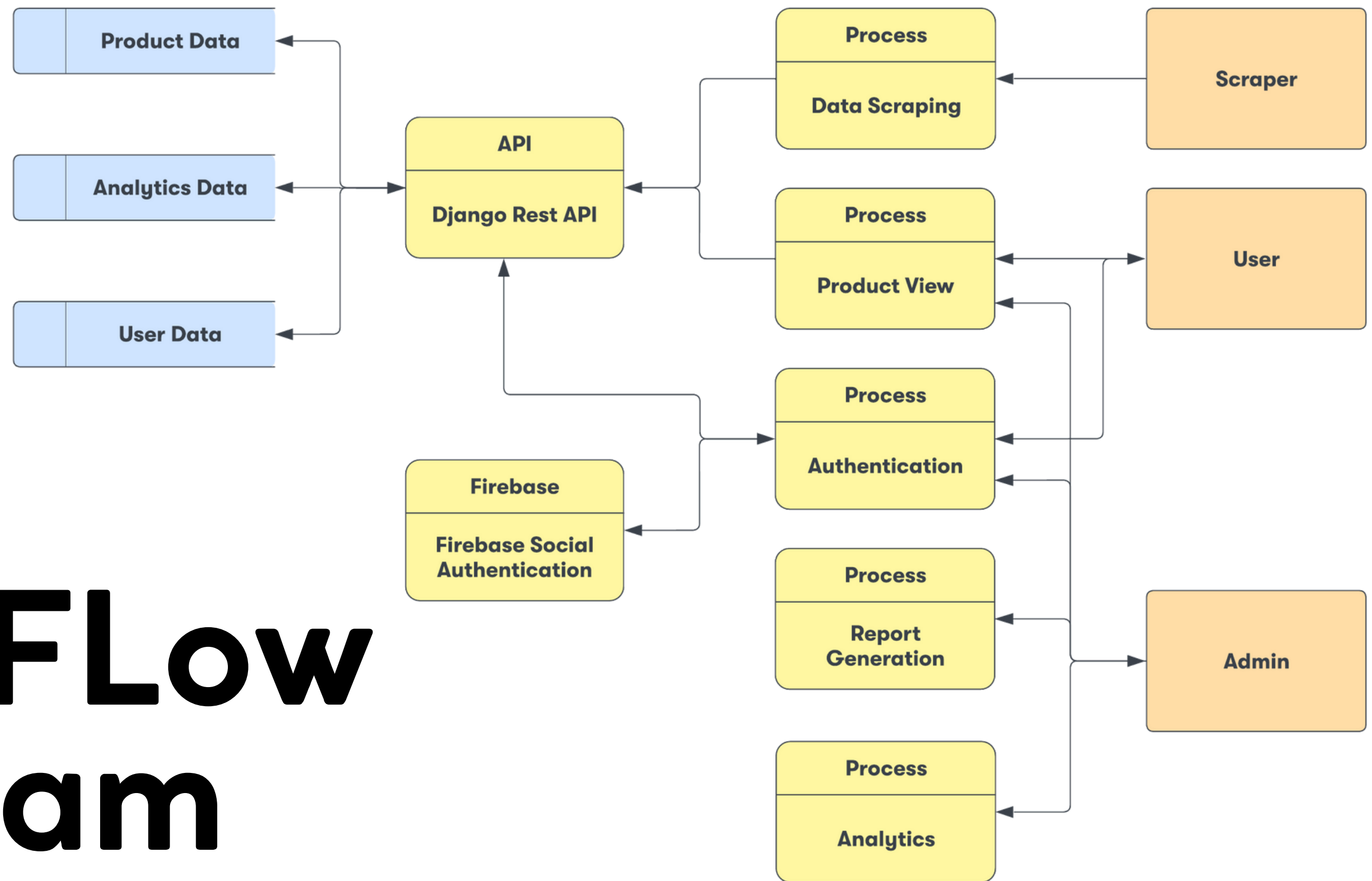


Use Case Diagram

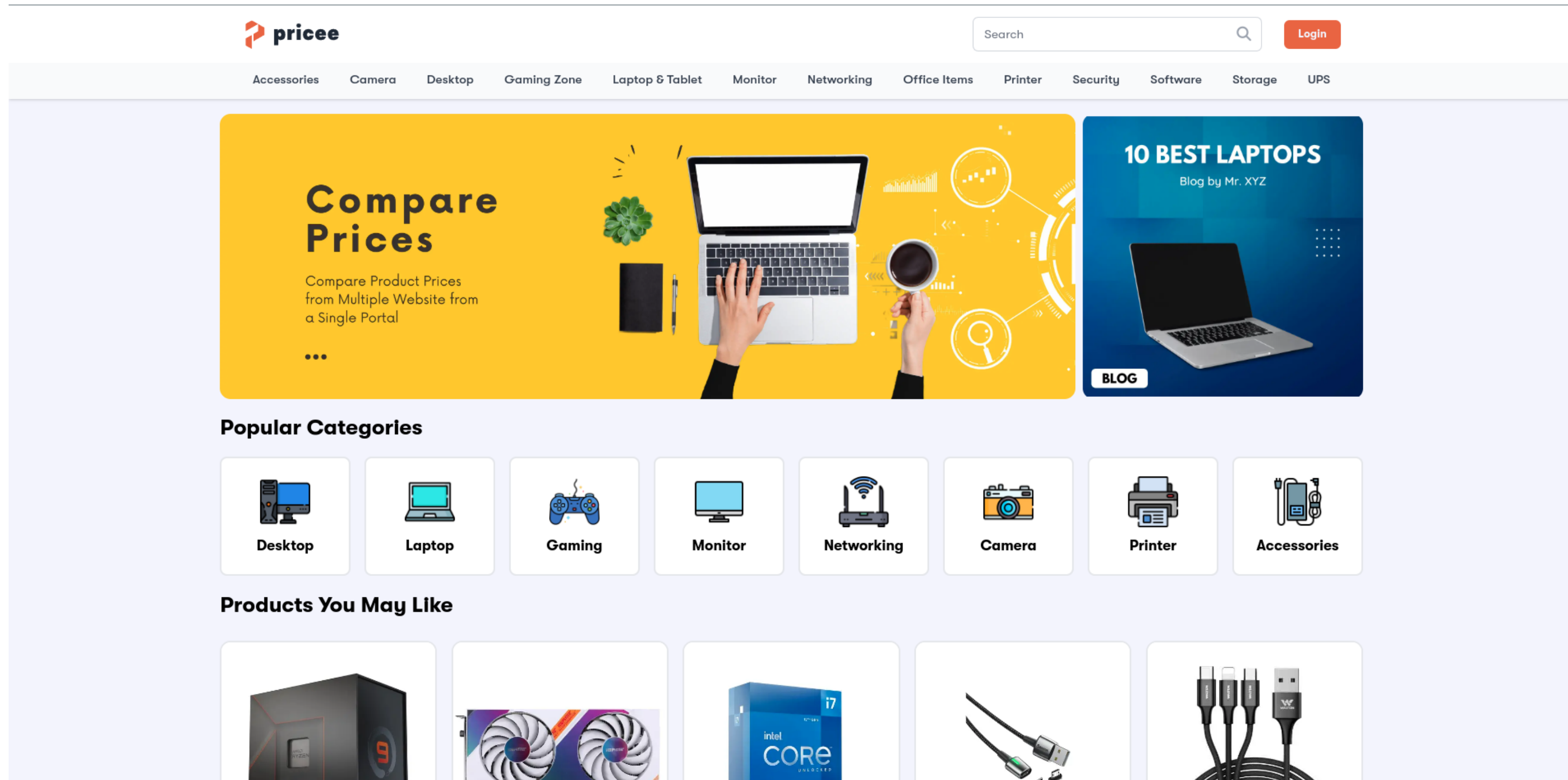
Level 0




Level 1 Data Flow Diagram



Landing Page




Login Page




Search


Login

AccessoriesCameraDesktopGaming ZoneLaptop & TabletMonitorNetworkingOffice ItemsPrinterSecuritySoftwareStorageUPS

Sign in to  pricee

Sign in to access full features.

 Sign in with Google

 Sign in with Facebook

or continue with email

Email address

fardeen.es7@gmail.com

Password

.....

[Forgot your password?](#)

Sign in

Don't have an account? [Sign up](#)

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Product Page

Login

Accessories

Camera

Desktop

Gaming Zone

Laptop & Tablet

Monitor

Networking

Office Items

Printer

Security

Software

Storage

UPS

Desktop

Components

AMD RYZEN 9 7950X 4.5 GHZ 16-CORE AM5 PROCESSOR

AMD RYZEN 9 7950X 4.5 GHZ 16-CORE AM5 PROCESSOR

Brand: AMD

Model: RYZEN 9 7950X

Best Price **

TECH LAND

BDT 72000

Best Price **

STAR TECH

BDT 72000

Best Price **

RYANS

BDT 72000

Product Information

CPU Socket	AM5
Brand	AMD
Model	AMD Ryzen 9 7950X

Similar Products

Thermaltake Versa H27

Tempered Glass Edition Mid-Tower Case

Best Price: 0

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Search Results

intel 13700k

Login

Accessories

Camera

Desktop

Gaming Zone

Laptop & Tablet

Monitor

Networking

Office Items

Printer

Security

Software

Storage

UPS

Search Results For: INTEL 13700K

intel 13700k

Order By Default

INTEL CORE I7-13700KF ASUS PRIME Z790-A WIFI 32GB RGB RAM 1TB SSD RTX 4080 16GB GRAPHICS CARD BUDGET PC

Best Price
328500 BDT

INTEL CORE I7-13700KF 3.4 GHZ 16-CORE LGA 1700 PROCESSOR

Best Price
44800 BDT

INTEL CORE I7-13700K 3.4 GHZ 16-CORE LGA 1700 13 TH GEN PROCESSOR

Best Price
46700 BDT

Intel 13th Gen Core i7 13700KF Raptor Lake Processor

Best Price
0 BDT

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Showing 1 to 4 of 4 products.

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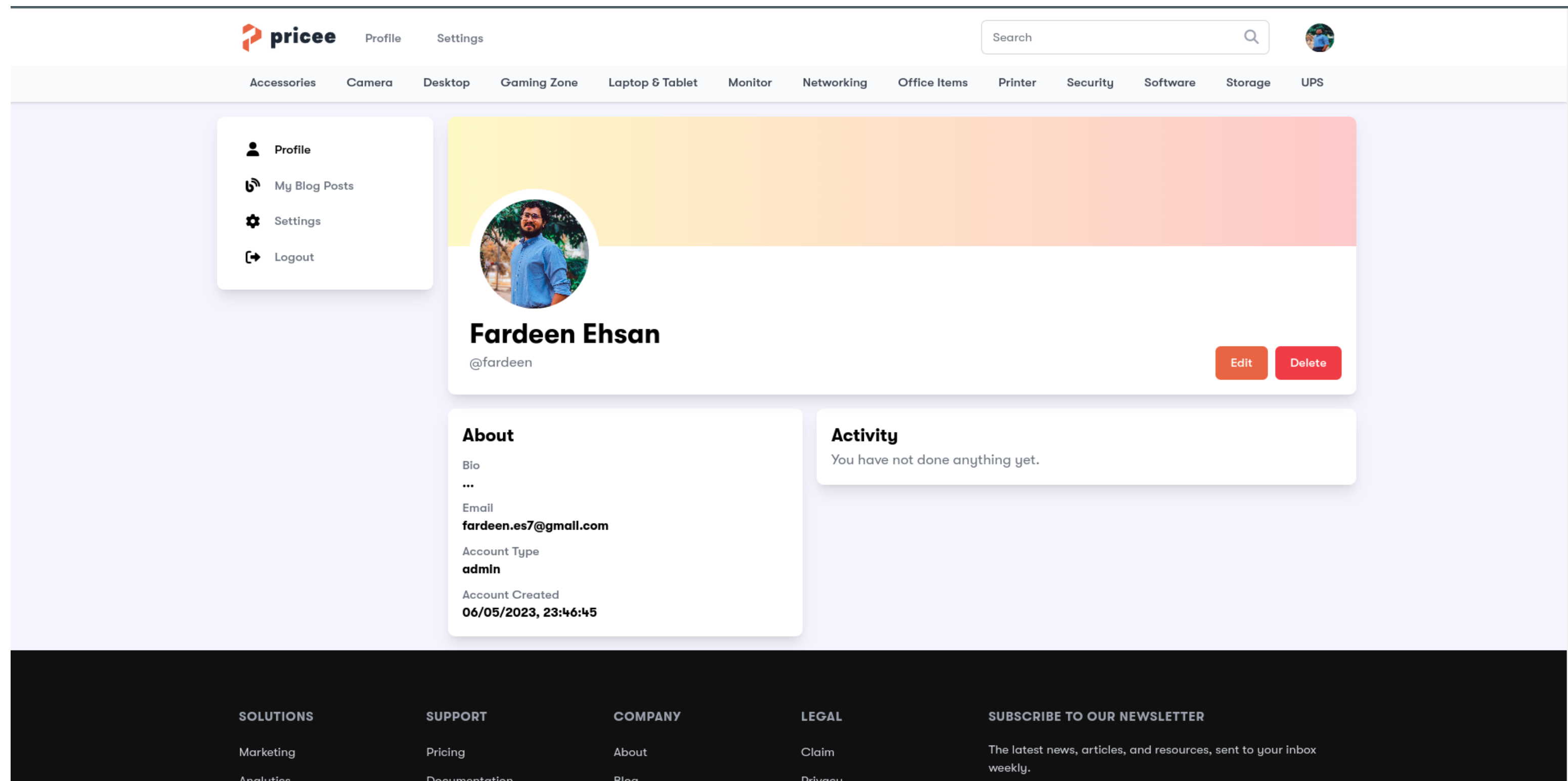
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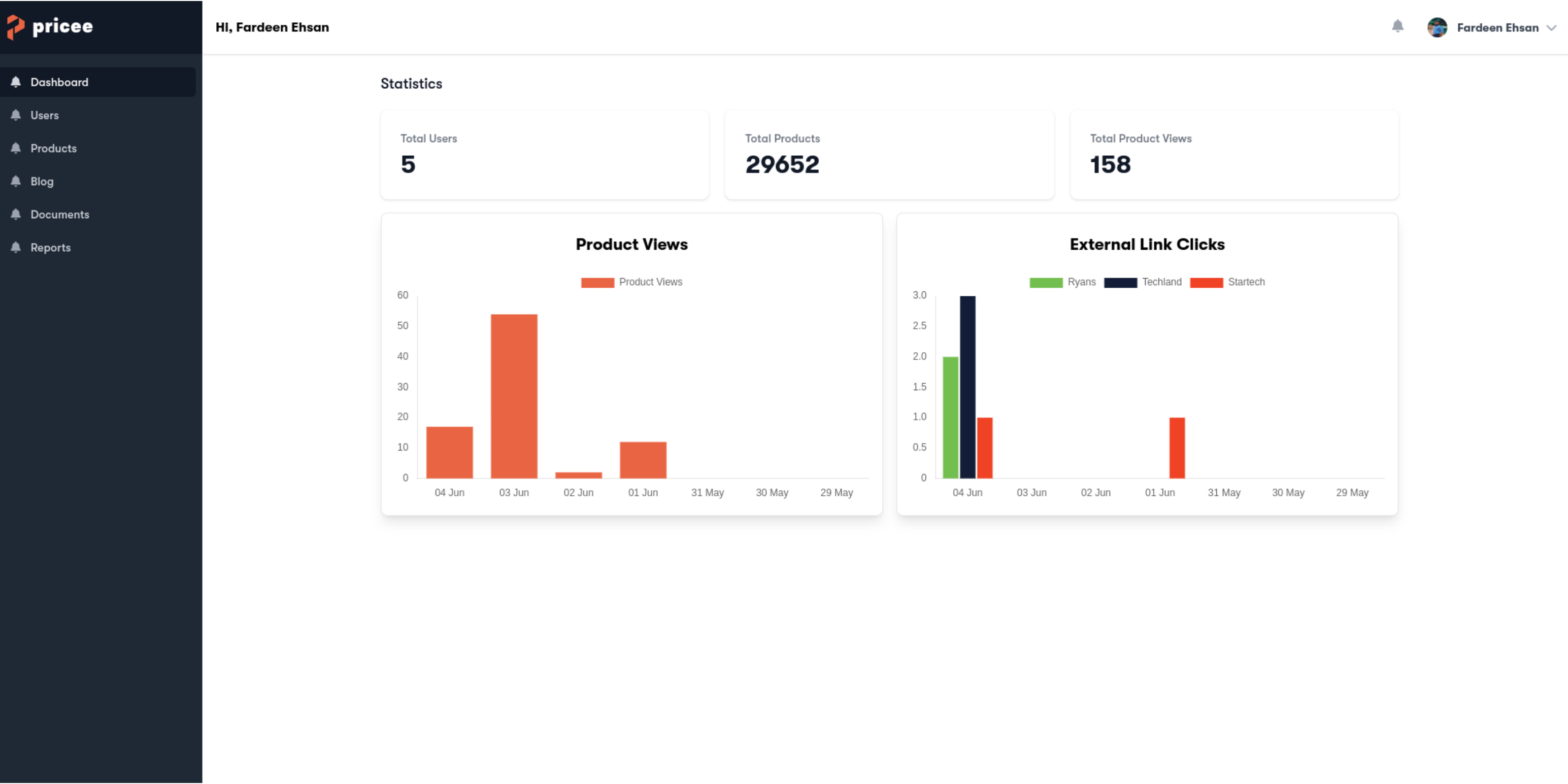
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User Profile Page



Admin Dashboard



Dashboard Users List

pricee

Dashboard

Users

Products

Blog

Documents

Reports

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Fardeen Ehsan

Users

Add user

A list of all the users in your account including their name, title, email and role.

Name	Email	Status	Role	
<div><div></div><div>MD Fardeen Ehsan Shawon</div></div>	d.icarus.000@gmail.com	Active	USER	Edit
<div><div></div><div>Fardeen Ehsan</div></div>	iamfard33n@gmail.com	Active	USER	Edit
<div><div></div><div>Test Two</div></div>	test2@test.com	Active	USER	Edit
<div><div></div><div>Test User</div></div>	test@test.com	Active	USER	Edit
<div><div></div><div>Fardeen Ehsan</div></div>	fardeen.es7@gmail.com	Active	ADMIN	Edit

Jump to page

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Dashboard Product List

pricee

Dashboard

Users

Products

Blog

Documents

Reports











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Fardeen Ehsan

Products

A list of all the products.

Add Product

ID	Title	Best Price	Shops
29652	 TP-Link TL-WR940N 450Mbps Wireless N Router	1950	Edit
29651	 TP-Link TL-MR3420 300Mbps 3G Wireless Router	2290	Edit
29650	 TP-Link TL-WR841N 300Mbps Wireless Router	1499	Edit
29649	 Energizer AAAA/E96 1.5V Alkaline Battery	0	Edit
29648	 Bijoy Bayanno 2020 Bangla Software	500	Edit
29647	 Norton 360 Deluxe Total Security (50GB) 3-User 1 year #21409799	0	Edit
29646	 Golden Field S300 2:1 Speaker	0	Edit
29645	 Apple 87W USB-C Power Adapter #MNF82LL/A	8000	Edit
29644	 Bijoy Ekattor For Mac Bangla Software	5000	Edit
29643	 Apple Magic Trackpad2 (Multi-touch Bluetooth Rechargeable Trackpad) #MJ2R2LL/A	0	Edit

Jump to page

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2

3

...

2966

Next

Dashboard Report Generation

pricee

Dashboard

Users

Products

Blog

Documents

Reports

Hi, Fardeen Ehsan

Fardeen Ehsan

Home > Generate Report

Generate PDF Report

Select Shop

Techland

RYANS

Startech

Select Year

2023

Select Month

June

Encryption

Password

Generate

Generated Report

Startech June 2023 Report [Pricee] (4).pdf

1 / 1

110%

pricee

Shop : Startech

Generated on : 5 Jun 2023

Report For : June 2023

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1366	ASUS BE24EQK 23.8 inch Full HD Webcam Business Monitor	5
21955	MSI PRO AP241Z 5M Ryzen 5 5600G 8GB RAM 512GB SSD 24" FHD All-in-One PC	3
8158	Intel Core i7-12700K 12 Core 20 Thread 12th Gen Processor	3
13926	VIEWSONIC VA2209-H 22 INCH FULL HD IPS MONITOR	3
235	1ST PLAYER AC1 ATX MINI GAMING CASE WITH RGB 1 FAN (BLACK)	3
15088	ZADAK TWSG3 128GB NVMe 1.3 PCIe Gen3x4 M.2 SSD	2
1144	Apple MacBook Pro 14.2 inch Liquid Retina XDR Display M1 Pro Chip 16GB RAM 1TB SSD (Space Grey 2021)	2
3333	Cooler Master MasterFan MF120 Halo Black ARGB 120mm Case Fan	2

Thank You

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June 2023