

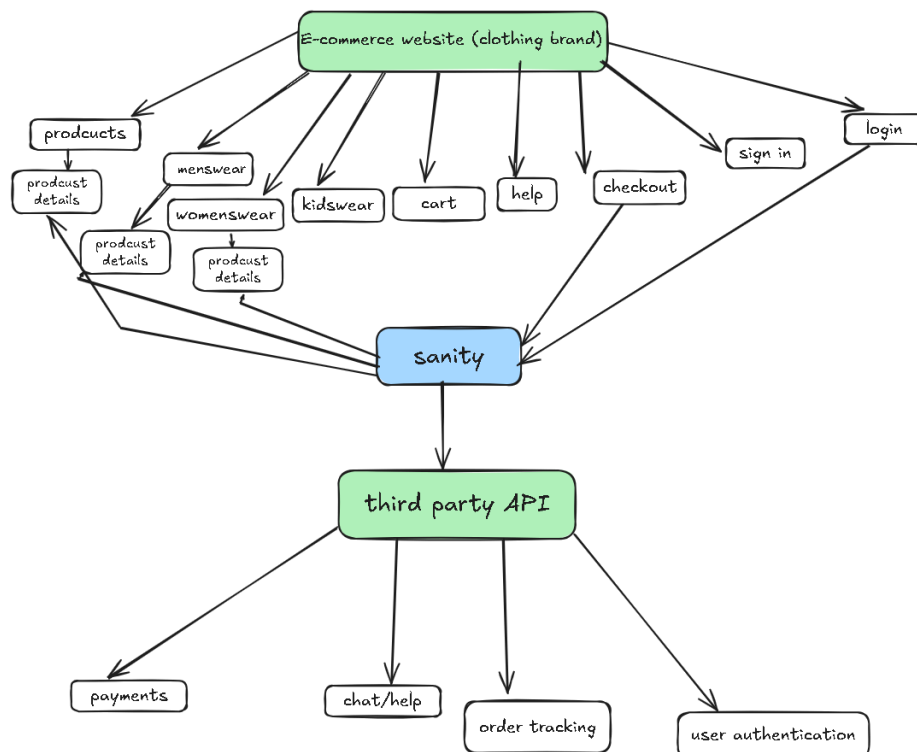
Marketplace Technical Foundation

For E-commerce Website

1. System Architecture Overview :

Frontend Requirement :

- **Homepage**: a main page that shows menu bar and best items.
- **Products**: it displays all the available products.
- **Men's collection** : only shows menswear and accessories.
- **Womens`s collection** : specific page for only women's wear.
- **Kid`s collection** : it shows kids collection and footwear.
- **Shoes** : it displays all the collections of footwear.
- **Product detail** : it shows details about specific products that customers want to know.
- **Sign In/login** : this page for login/sign in for users.
- **Cart** : in this page customers see the products they add in cart.

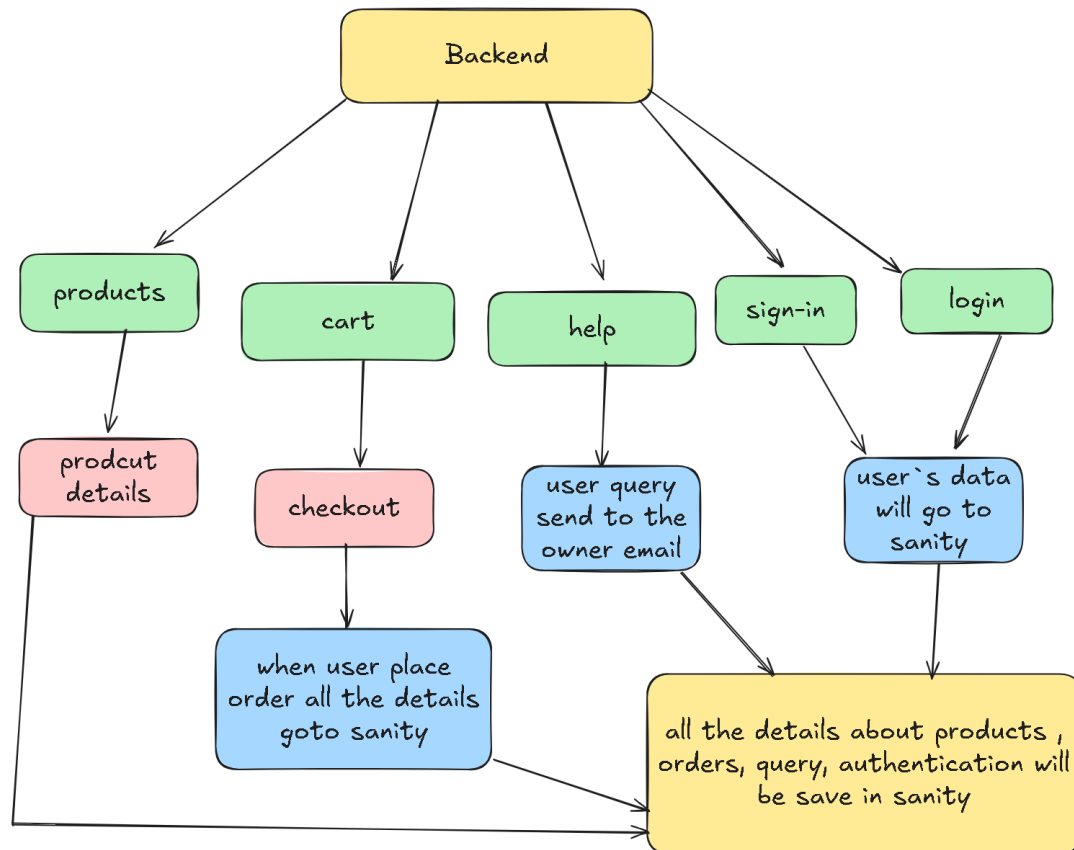


- **Checkout** : this page has a form for customers to fill and place their order.

Backend Requirement :

`Sanity CMS will be used for managing data in backend`

- **Products** : all the data about products like id, name , price, stock etc saved in sanity and can add more products in future.
- **Customers** : customers data like id, name , contact info, order history.
- **Orders** : orders from customers with detail of order id, customer id, products id, cart items, total amount., status.



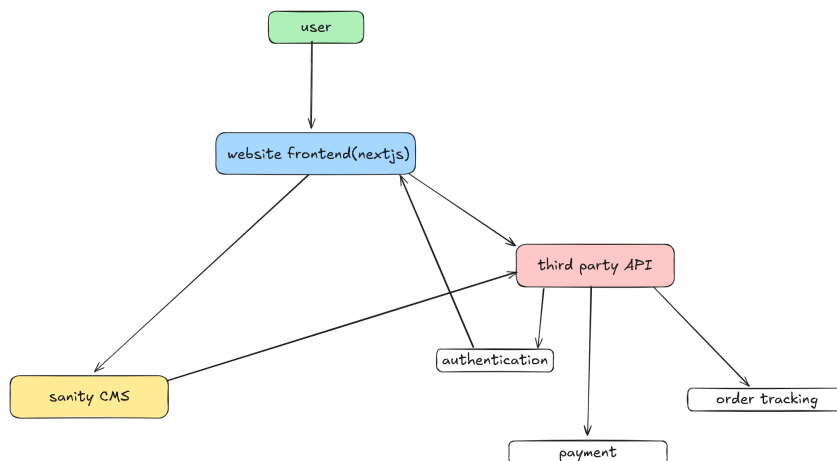
Third party API Requirement :

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- **Users sign in / login :** OAuth API used for authentication.
- **Payment :** stripe will be used for payments .
- **Order tracking :** shipengine will be used for order tracking.

System Architecture design :

In this architecture, the data flow can be explain as:

1. A user visits a website to browse products.
2. When users browse for product frontend make requests to Products API (by Sanity CMS) to fetch product listing with their attributes and also show the details for each product dynamically.
3. After selecting products in cart, when a user fills form at checkout and places their order an API to send all the customer and order details to sanity CMS to record it and also third party API calls for placing order.
4. Payment details are securely processed through third party API and record it also in sanity.
5. After order completion users get a unique id for tracking their order and third party API plays a role for tracking order.



2. Key Workflow :

Key workflow includes :

- **Authentication** : user sign-in/login > data sent to sanity.
- **Product browsing** : user browse products > data comes from sanity .
- **Add to cart** : user add products to cart and checkout.
- **Order placing** : user fill information > data go to sanity .
- **Payment** : user pay securely through API.
- **Tracking** : after placing order > user get unique id from sanity > through third party API order can track

Workflow digram :

