

Day-02 (Planning the Technical Foundation)

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Class Timing: Saturday Morning (9am – 12pm)

Defining Technical Requirements:

- **Frontend**

- Easy Navigation
- Responsive Design
- **Pages:**
 - Home
 - All Products
 - All Categories
 - Product Page (Dynamic for each available product)
 - Category Page (Dynamic for each available category – also contains products related to that specific category)
 - Order
 - Cart
 - Checkout
 - Login
 - Signup
 - Navigation Bar and Footer (for easy Navigation)
 - Login
 - Signup/Register
 - User Profile

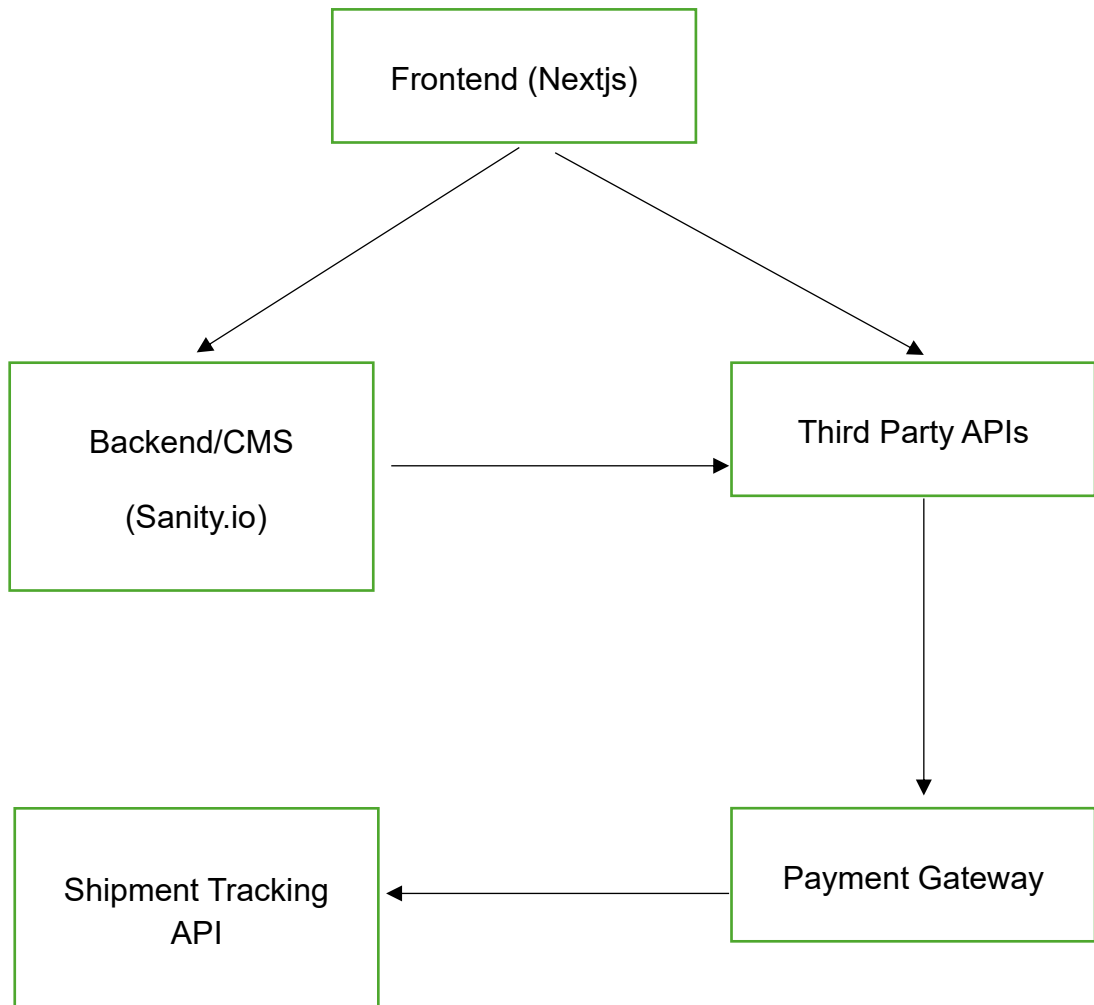
- **Backend**

- Will store data for:
 - Product
 - Category
 - Team
 - Order, Cart and Checkout

- **Third party APIs**

- Get all products
 - /api/product/
- Get all categories
 - /api/category/

System Architecture Design:



- **Key Work Flows:**

- **Product Browsing**

- User /productlist page and make a request to sanity via frontend to see all products with some filters (if it may want)
- Then frontend fetches all the required data from sanity to the client

- **User Login to access its profile and getting exclusive discounts.**

- User visits /login page to login using its credentials (email and password)
- Now it can see its all details on /user page

- **Adding Items to cart**

- User Clicks “Add to Cart” on a product card or product page.
- Frontend sends product ID and quantity to the POST/api/cart endpoint
- Which adds product details to the user’s cart record
- Update cart UI

- **Order Placement**

- User clicks “Checkout” button on cart page
- Which sends cart details, shipping address, and payment methods to the POST/order/ endpoint
- Sanity creates a new order with status set to “Pending” by default
- Payment Gateway Process the payment and return a confirmation or failure response
- Show the order confirmation page with details (order ID, estimated Delivery date) to the frontend

API Requirements Planning:

- **Endpoint name: /product**

- Method: GET
- Description: Fetches all products available in sanity
- Response: {description : string, isNew : boolean, tags : string[], title : string, productImage : { asset : { _id : string, url : string } }, price : number, discountPercentage : number, _id : string, bestseller : boolean, category : { title : string, _id : string }, _updatedAt : Date() }

- **Endpoint name: /category**

- Method: GET
- Description: Fetches all categories available in sanity
- Response: { image : { asset : { _id : string, url : string } }, _id : string, title : string }

// planning to design more api endpoints in future