



# Marketplace Technical Foundation - Heckto (General e-commerce)

This document outlines the technical planning and system architecture for our marketplace. It includes details about schemas, API endpoints, and workflows.

## Technical Requirements

### Frontend Requirements

- **User-Friendly Interface:** Browsing products should be intuitive and seamless.
- **Responsive Design:** Ensure compatibility with both mobile and desktop users.

### Essential Pages

1. **Home**  
Displays featured products and categories.
2. **Product Listing**  
Showcases all available products with filtering and sorting options.
3. **Product Details**  
Detailed view of a single product, including specifications, reviews, and related products.
4. **Cart**  
Displays selected items, quantities, and pricing summary.
5. **Checkout**  
Allows users to provide shipping details and payment information.
6. **Order Confirmation**  
Displays order details and confirmation status.

### Backend Requirements

#### Sanity CMS

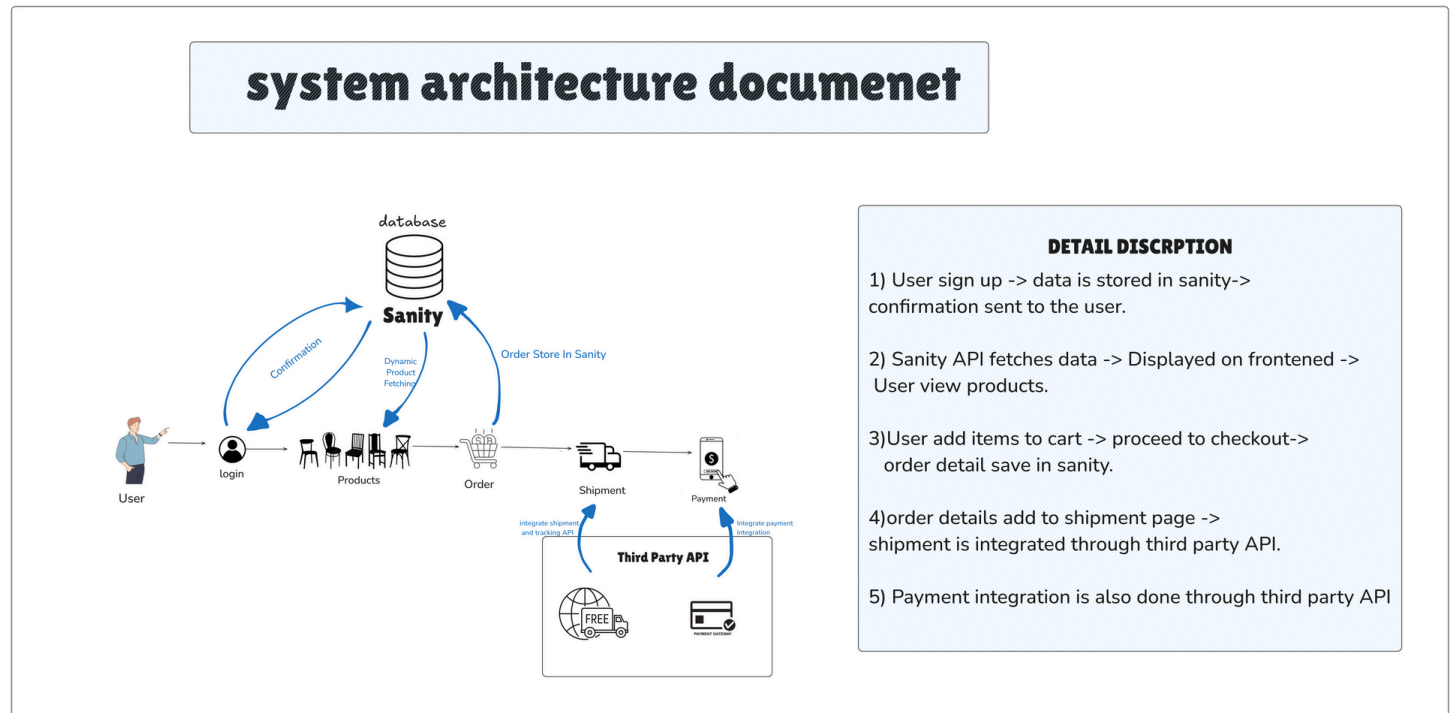
- Used to manage:
  - Product details
  - Customer information
  - Order records
- Acts as the primary database for the marketplace.

#### Third-Party APIs

- **Integration Needs:**
  - Shipment Tracking
  - Payment Gateways

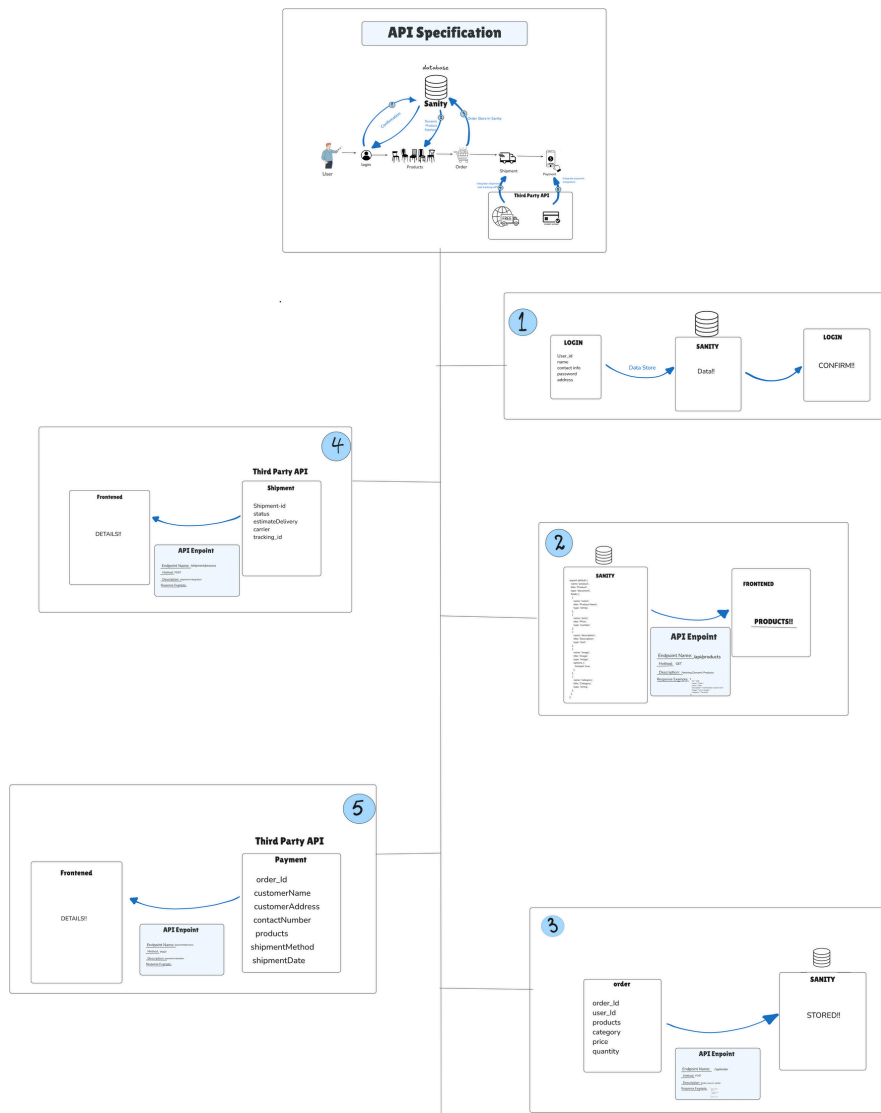
# System Architecture

Below is a visual representation of the general e-commerce system architecture:



## API Specification

The API specifications, including the Sanity schema and API endpoints, are outlined below:



## API EndPoints:

Below is a clear version of API endpoints, which are based on the API specification shown in the picture.

### 1- Fetched data dynamically from Sanity:

- **Endpoint name:** /api/products
- **Method:** GET
- **Description:** Fetching Dynamic products
- **Response Example:** [{

```
"id": "123",
"name": "Chair",
"price": 1200,
"description": "Comfortable wooden chair",
"image": "url-to-image",
"category": "Furniture"
}]
```

### 2-Order store in sanity:

- **Endpoint name:** /api/order
- **Method:** POST

- **Description:** Order store in sanity
- **Response Example:**{

```
"userId": "abc123",  
  
"products": [{  
  
  "productId": "123",  
  
  "quantity": 2  
  
}],  
  
"totalPrice": 2400  
  
}
```

## 3-Shipment API integration:

- **Endpoint name:** /shipment/process
- **Method:** POST
- **Description:** Shipment integration

## 4-Payment API integration:

- **Endpoint name:** /payment/process
- **Method:** POST
- **Description:** Payment integration

# Sanity Schema

Below is an example of a Sanity schema for managing product details:

```
export default {  
  name: 'product',  
  title: 'Product',  
  type: 'document',  
  fields: [  
    {  
      name: 'name',  
      title: 'Product Name',  
      type: 'string',  
    },  
    {  
      name: 'price',  
      title: 'Price',  
      type: 'number',  
    },  
    {  
      name: 'description',  
      title: 'Description',
```

```
    type: 'text',
  },
  {
    name: 'image',
    title: 'Image',
    type: 'image',
    options: {
      hotspot: true,
    },
  },
  {
    name: 'category',
    title: 'Category',
    type: 'string',
  },
],
];
```