

# Hackathon

## DAY 2 PLANNING THE TECHNICAL FOUNDATION

### Planning the Technical Foundation

#### 1. Define Technical Requirements:-

- **Frontend Requirements:**

Utilize Next.js, HTML, TypeScript, and Tailwind CSS to build a responsive dynamic, and user-friendly interface.

- **Sanity CMS as Backend:**

Utilize **Sanity CMS** for streamlined and efficient management of backend operations, including product listings, order data, and other dynamic content.

- **Third-Party APIs:**

**MockAPI:**

For managing and simulating product data.

**ShipEngine:**

To handle the shipment process efficiently.

**Sanity CMS:**

For dynamic content management and backend operations.

#### 2. Design System Architecture:-

Frontend (Next.js)

|

[Sanity CMS] -----> [Product Data API]

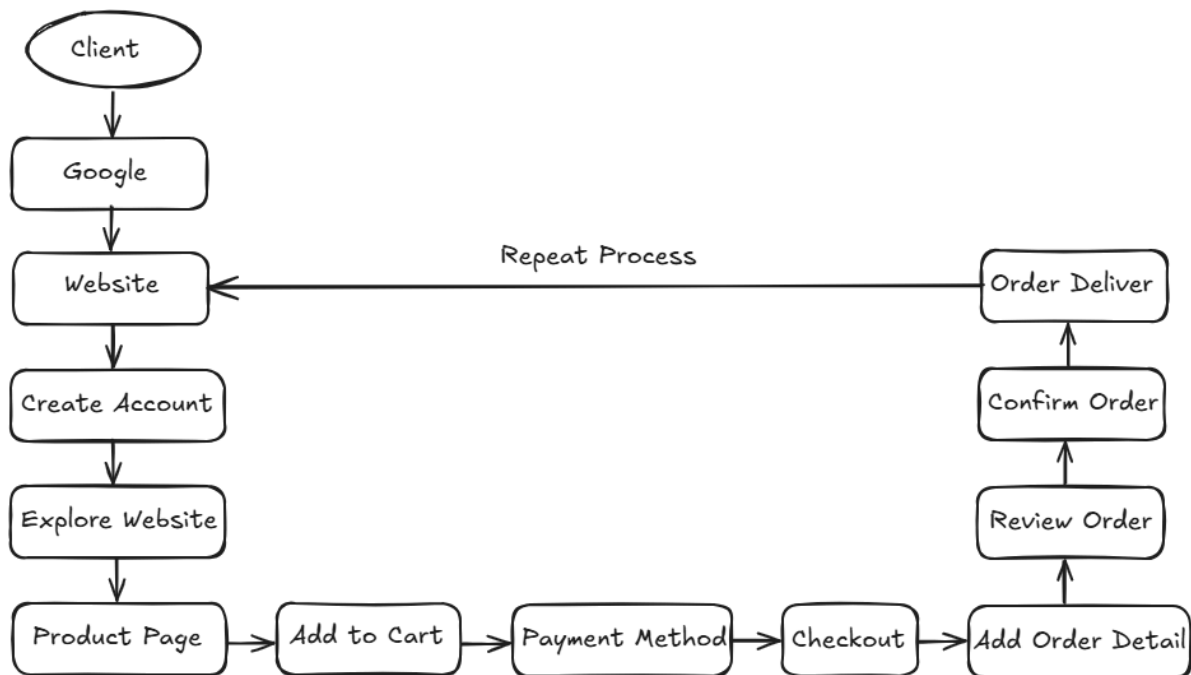
|

[Third-Party API] -----> [Shipment Tracking API] -----> [Shipengine]

### 3. Website Overflow:-

#### How Our Website Works:

- Image



- Detail:

Here's a short description of the user flow for a client confirming their order on the sofa website:

1. **Client searches on Google:** The client uses Google to find the website or hears about the website from someone and decides to visit it.
2. **Visit the website:** They land on the homepage and start exploring.
3. **Account Creation/Login:** New users create an account while returning users login.
4. **Explore Website:** The client browses through the various categories and products.
5. **Product Page:** They navigate to a product page to view details about the selected item.
6. **Add to Cart:** The client adds the product to their cart.
7. **Select Payment Method:** They choose their preferred payment method.
8. **Checkout:** The client proceeds to the checkout page.
9. **Add Order Detail:** They enter necessary order details like shipping address.
10. **Review Order:** Before finalizing, the client reviews their order to ensure accuracy.
11. **Confirm Order:** The client confirms the order.
12. **Order Delivered:** The product is delivered to the client.

#### 4. Data Schema:-

##### Product Schema:

```
import { defineType, defineField } from "sanity";

export const product = defineType ({

  name: 'product',

  type: 'document',

  title: 'Product',

  fields: [

    defineField(

      {

        name: 'title',

        type: 'string',

        title: 'Product_name',

        validation: Rule => Rule.required(),

      },

      validation: Rule => Rule.required()

    ),

    defineField(

      {

        name: 'description',

        type: 'string',

        title: 'Description'

      },

      validation: Rule => Rule.required()

    )

  ]

});
```

```
),

defineField(

{

  name: 'price',

  type: 'number',

  title: 'Product Price',

  validation:Rule => Rule.required()

},


defineField(

{

  name: 'stock_availability',

  type: 'number',

  title: 'Stock Availability',

},

validation:Rule => Rule.required()

),

defineField(

{

  name:'rating',

  type:'number',

  title:'Rating',

  description:'Rating of the product'

},

validation:Rule => Rule.required()
```

```
),

defineField(

{

  name: 'tags',

  type: 'array',

  title: 'Tags',

  of: [{ type: 'string' }],

  options: {

    layout: 'tags'

  },

  description: 'Add tags like "new arrival", "bestseller", etc.'

},

  validation:Rule => Rule.required()

),

defineField(

{

  name: 'image',

  type: 'image',

  title: 'Product Image',

  options: {

    hotspot: true // Enables cropping and focal point selection

  },

},),

defineField(

{
```

```
        name: 'slug',  
  
        type: 'slug',  
  
        title: 'Slug',  
  
        options: {  
  
            source: 'title',  
  
            maxLength: 96  
  
        },  
  
        validation: Rule => Rule.required()  
  
    },  
  
),
```