

## Day 3 - API Integration

### Q-COMMERCE -

### FOODTUCK

## API Integration

API (Application Programming Interface) integration enables different software applications to communicate and share data. It involves connecting an application to an external service or multiple systems to perform specific tasks, such as retrieving, sending, or processing information.

## Data Migration

Data migration refers to the process of

transferring data from one system, format, or storage medium to another. It is a critical activity during system upgrades, mergers, or transitioning to modern technologies like cloud platforms.



## Error Handling in API Integration

Error handling is a critical part of API integration, ensuring that the system remains

reliable and provides a smooth user experience even when issues occur. Effective error handling involves anticipating potential failures, such as network issues, invalid requests, or API rate limits, and implementing strategies to address them gracefully.

## **Key techniques include:**

Logging Errors: Capturing detailed logs for debugging.

Retry Mechanisms: Retrying failed requests with exponential backoff.

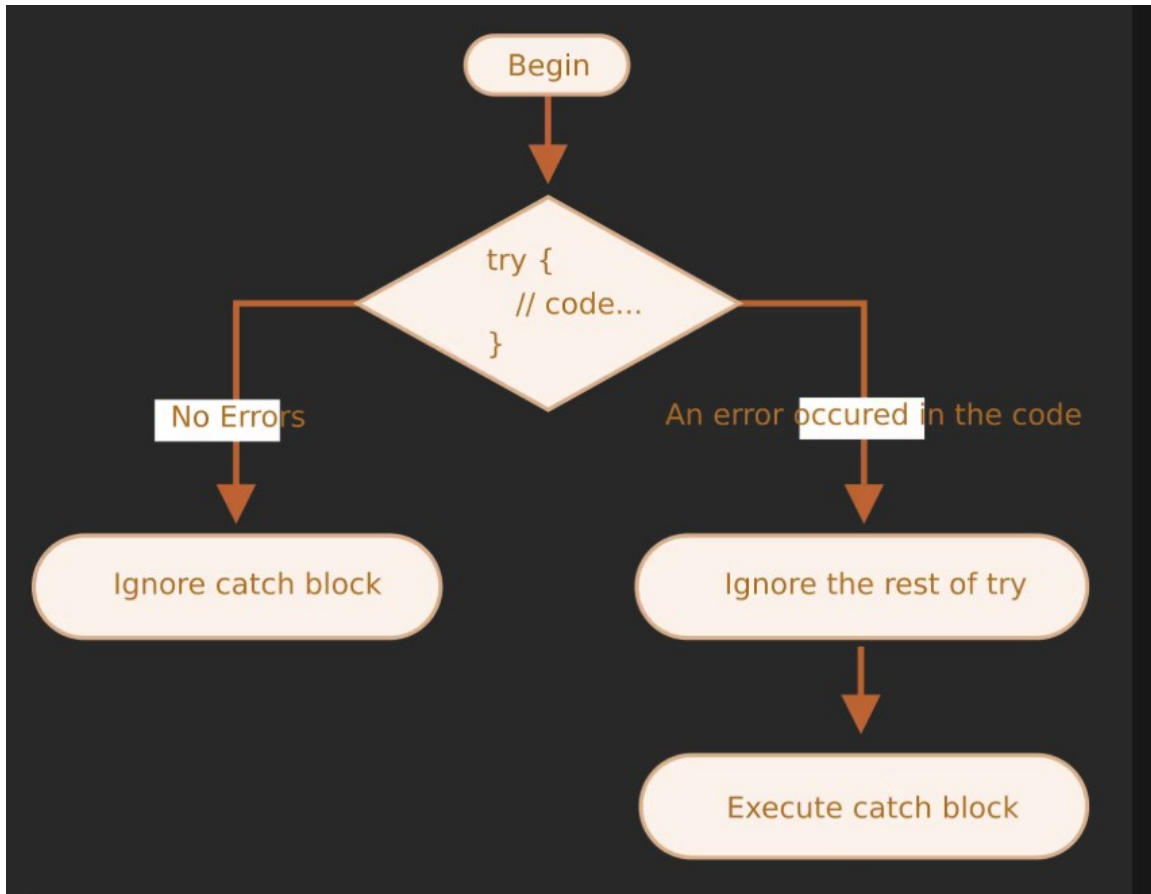
Graceful Fallbacks: Providing alternative actions or messages when an error occurs.

User-Friendly Messages: Displaying clear and actionable error messages to users.

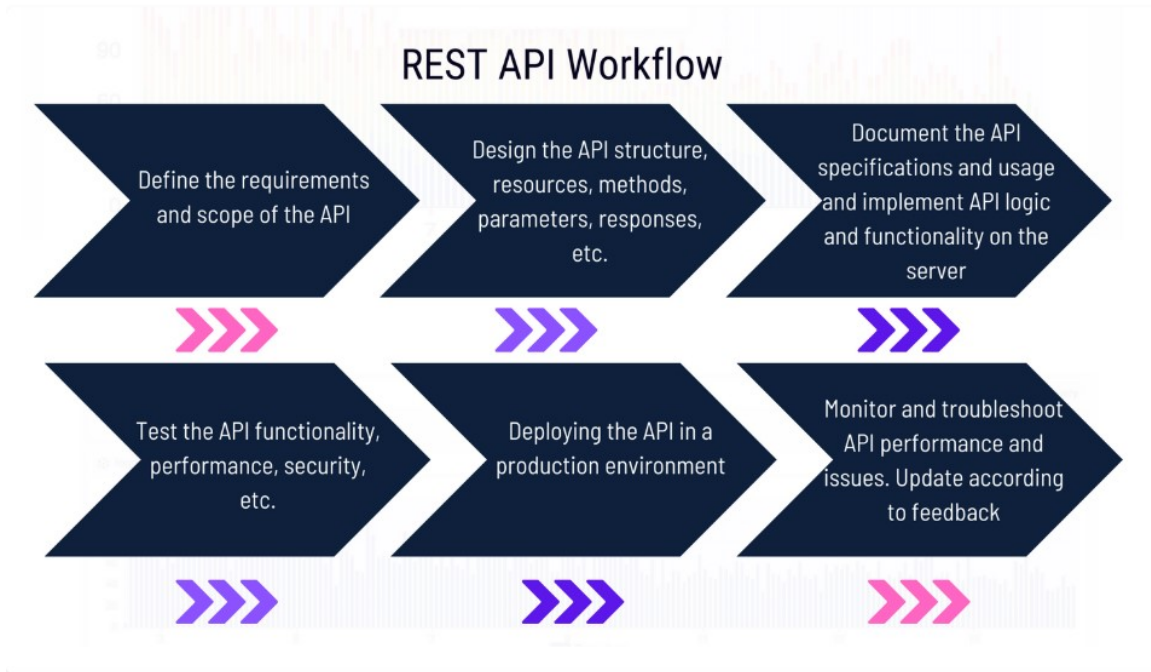
Monitoring and Alerts: Continuously monitoring API performance and setting alerts for critical issues.

Proper error handling ensures system resilience

and improves overall reliability.



## API WORK FLOW



## Evaluating the Effectiveness of Your REST API Workflow

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## Migration steps and tools used

### Fetching Data:

```
20
21 // Fetch foods data from your custom foods API
22 export async function fetchFoodsData() {
23   try {
24     const foodsResponse = await fetch("https://sanity-nextjs-rouge.vercel.app/api/foods");
25     if (!foodsResponse.ok) throw new Error(`Failed to fetch foods: ${foodsResponse.statusText}`);
26     const foods = await foodsResponse.json();
27
28     // Process and save foods data to Sanity
29     const foodPromises = foods.map(async (food: any, index: number): Promise<void> => {
30       const uniqueId = food.id || `food-${index}-${Date.now()}`;
31       const imageAsset = await uploadImageToSanity(food.image);
32
33       const sanityFood = {
34         _id: `food-${uniqueId}`,
35         _type: "food",
36         name: food.name,
37         category: food.category || null,
38         price: food.price,
39         originalPrice: food.originalPrice || null,
40         tags: food.tags || [],
41         description: food.description || '',
42         available: food.available !== undefined ? food.available : true,
43         image: {
44           _type: "image",
45           asset: {
46             _type: "reference",
47             _ref: imageAsset,
48           },
49         },
50       },
51     });
52   }
53 }
```

## Food Schema:

The screenshot shows a VS Code editor with a project named 'HACKATHON-PROJECT'. The file explorer on the left shows the directory structure, with 'src > schemaTypes > foods.ts' selected. The main editor displays the content of 'foods.ts'.

```
src > sanity > schemaTypes > foods.ts > default > fields
1 export default {
2   name: 'food',
3   type: 'document',
4   title: 'Food',
5   fields: [
6     {
7       name: 'name',
8       type: 'string',
9       title: 'Food Name',
10    },
11  ],
12  {
13    name: 'category',
14    type: 'string',
15    title: 'Category',
16    description:
17      'Category of the food item (e.g., Burger, Sandwich, Drink, etc.)',
18  },
19  {
20    name: 'price',
21    type: 'number',
22    title: 'Current Price',
23  },
24  {
25    name: 'originalPrice',
26    type: 'number',
27    title: 'Original Price',
28    description: 'Price before discount (if any)',
29  },
30  {
31    name: 'tags',
32    type: 'array',
33  },
34  ],
35 }
```

## Index.ts

The screenshot shows a VS Code editor with the same project. The file explorer on the left shows 'src > schemaTypes > index.ts' selected. The main editor displays the content of 'index.ts'.

```
src > sanity > schemaTypes > index.ts > schema > types
1 import { type SchemaTypeDefinition } from 'sanity'
2 import landingPage from './landingPage'
3 import hero from './landingPage-sections/hero'
4 import about_us from './landingPage-sections/about_us'
5 import food_category from './landingPage-sections/food_category'
6 import our_menu from './landingPage-sections/our_menu'
7 import chefs from './chefs'
8 import foods from './foods'
9
10 export const schema: { types: SchemaTypeDefinition[] } = {
11   types: [landingPage, hero, about_us, food_category, our_menu, chefs, foods],
12 }
13
```

## Data Used In My Page

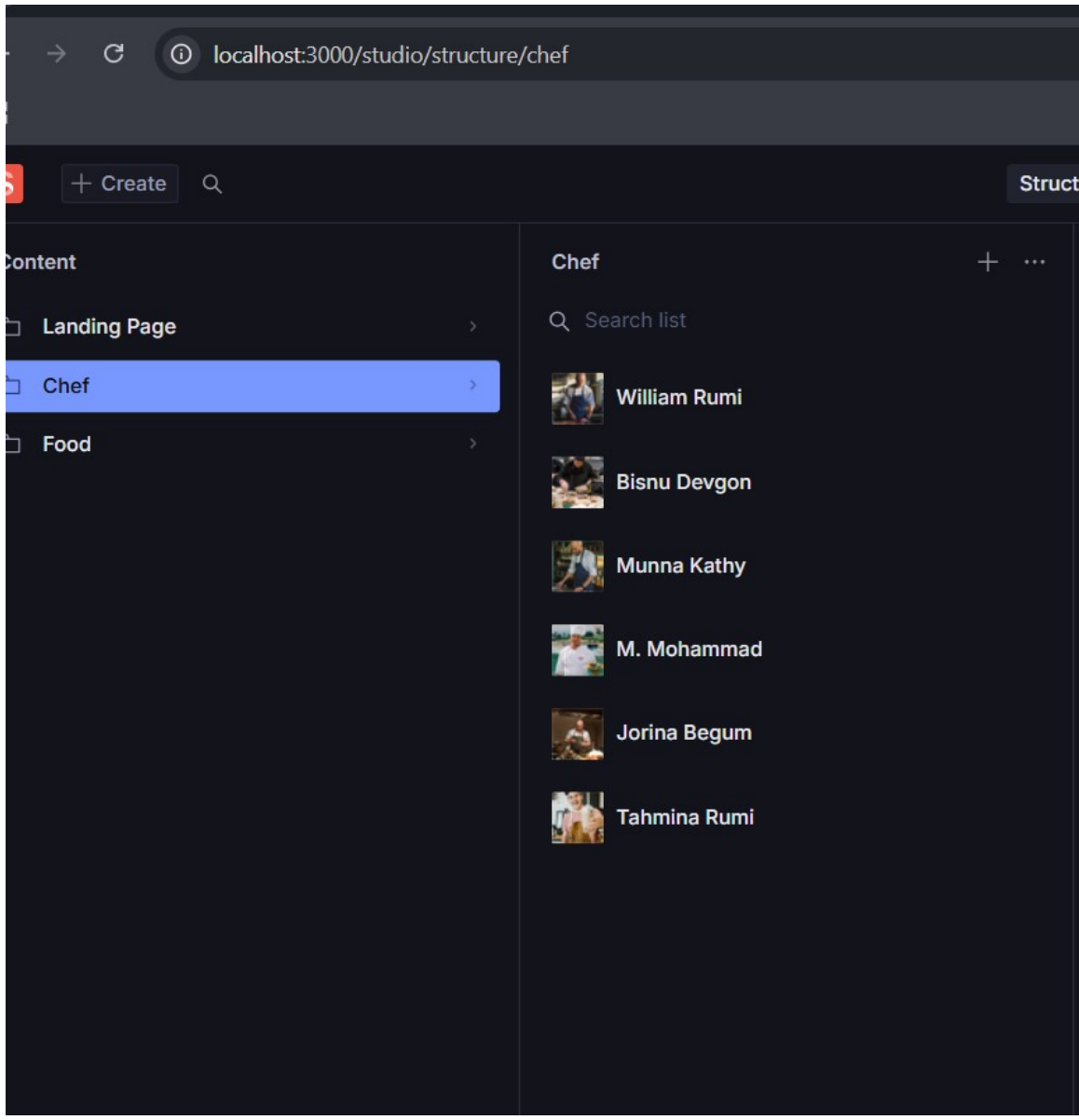
```
code
de_modules
blic
c
pp
components
ui
About.tsx
AboutUs.tsx
Blog.tsx
BlogDetails.tsx
BlogPage.tsx
Blogs.tsx
CheckoutForm...
ChefCard.tsx
CoffeeHeader.t...
Faq.tsx
FoodCategory....
FoodItem.tsx
FoodList.tsx
Foods.tsx
Footer.tsx
Footer1.tsx
HeaderHero.tsx
HeaderMenu.tsx
HeroHeader.tsx
Menu.tsx
MenuItem.tsx
Navbar.tsx
orderSuccess.tsx
OurChef.tsx
OurMenu.tsx
Partner.tsx
Product.tsx

22 interface Ires {
23   name: string;
24   _id: number;
25   price: number;
26   originalPrice: number;
27   description: string;
28   image: string;
29   category: string;
30 }
31
32 export default function FoodList() {
33   const [foods, setFoods] = useState<Ires[]>([]);
34   const [priceRange, setPriceRange] = useState([0, 8000]);
35
36   useEffect(() => {
37     const fetchFoodsData = async () => {
38       try {
39         const res = await client.fetch(
40           `**[_type == 'food']{_id, 'image': image.asset->url, originalPrice, price, name, description, category
41         );
42         setFoods(res);
43       } catch (error) {
44         console.error("Error fetching food data:", error);
45       }
46     };
47     fetchFoodsData();
48   }, []);
49
50   return (
51     <div className="container mx-auto px-4 py-8 □ text-black">
52       { /* Top Filters */ }
53       <div className="flex flex-col md:flex-row gap-4 mb-8">
54         <div className="flex items-center gap-2">
55           <span className="□ text-gray-700">Sort By:</span>
56           <Select defaultValue="newest">
57             <SelectTrigger className="w-[180px]" >
58               <SelectValue placeholder="Sort by" />
59             </SelectTrigger>
60             <SelectContent className="□ text-black">
```

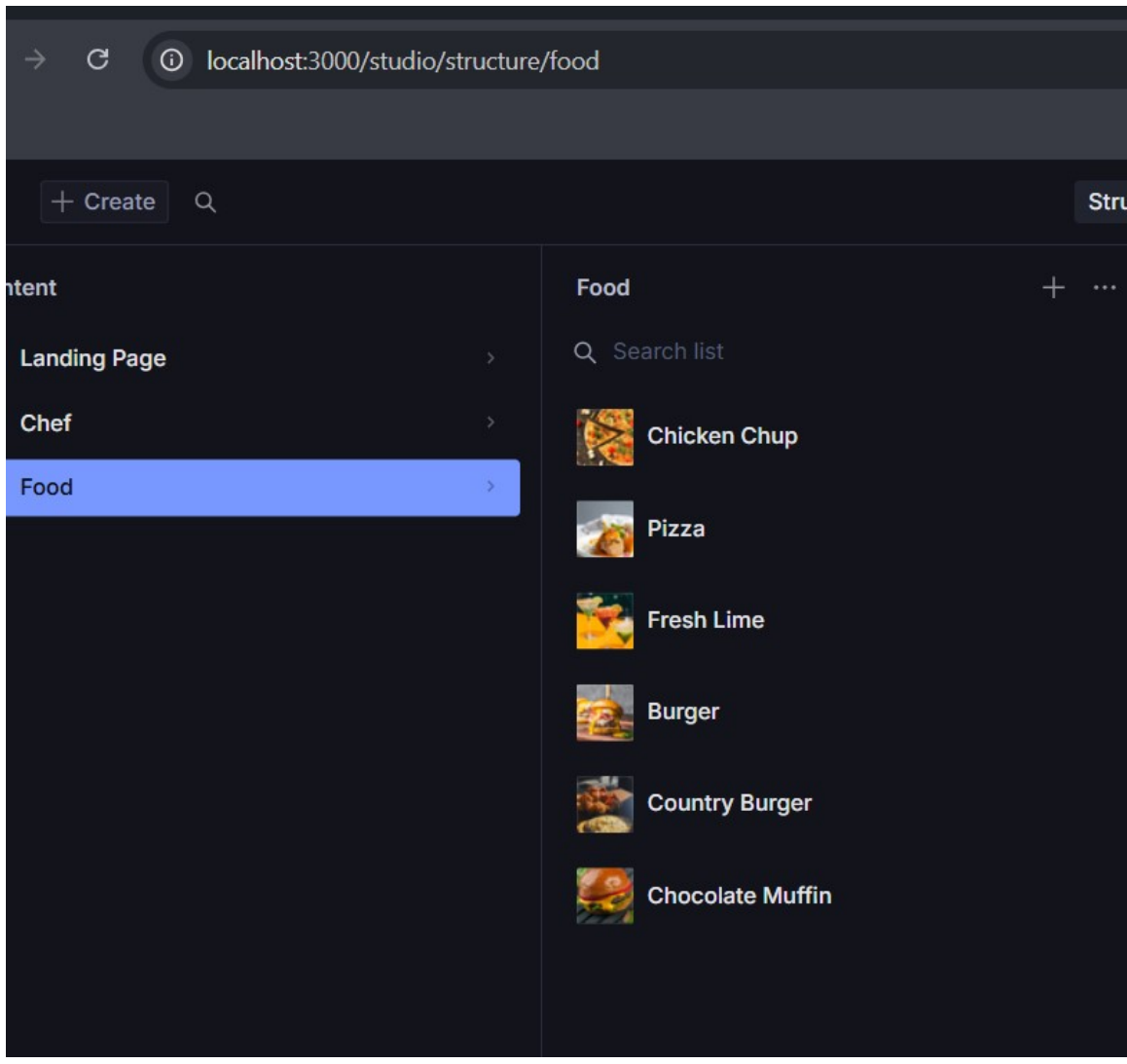
## SANITY CMS DATA

## CHEF DATA





## FOOD DATA



## DATA IN WEBSITE

