Day 3 - API Integration Report-

FURNICO

Overview

This report documents the API integration process for the eCommerce website **FurniCo**, where we:

- Integrated an external API to fetch product data.
- Managed content using Sanity CMS.
- Displayed the fetched data on the frontend UI of the website.

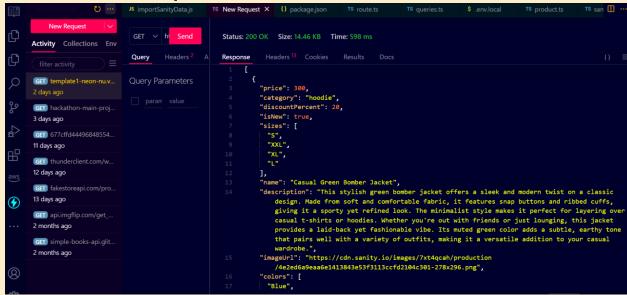
Additionally, it includes details of schema adjustments, migration steps, and the tools used during the integration process.

API Integration Process

Step 1: Understanding the External API

API Name: [API Name]

Base URL: https://



Step 2: Fetching Data

- Implemented a TypeScript service to fetch data from the external API using the fetch function.
- Used axios for easier handling of HTTP requests.

Code Snippet:

Data Displayed in the Frontend

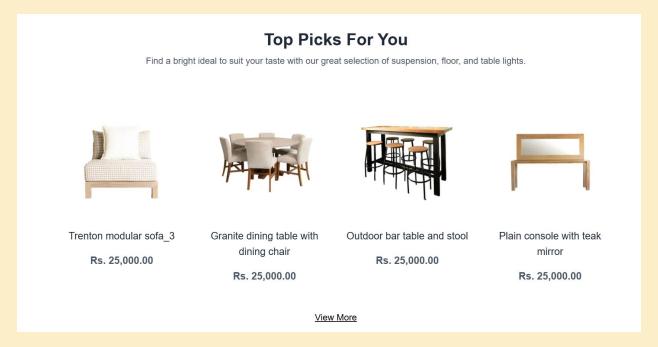
 Screenshot of the ShopCo website displaying products fetched from the API:

Populated Sanity CMS Fields

Screenshot of Sanity CMS with populated product data:

Frontend Integration

 Implemented a Next.js getStaticProps function to fetch product data at build time.



Code Snippet:

```
export const getStaticProps = async () => {
  const products = await sanityClient.fetch(`*[_type
  == 'product']`);
  return {
    props: { products },
    };
};
```

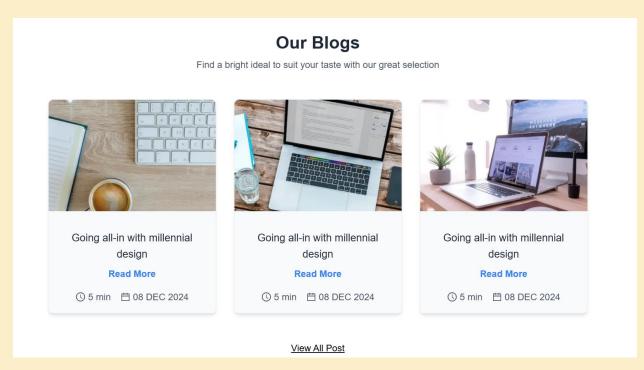
 Displayed products on the UI using a responsive grid layout.

Code Snippet:

```
const ProductList = ({ products }: { products: any[]
}) => {
```

```
5
```

```
return (
   <div className="grid grid-cols-1 md:grid-cols-3</pre>
gap-4">
    {products.map((product) => (
     <div key={product._id} className="p-4 border</pre>
rounded">
       <h2>{product.title}</h2>
       ${product.price}
       <img src={product.image?.asset?.url}</pre>
alt={product.title} />
     </div>
    ))}
   </div>
 );
};
export default ProductList;
```





Challenges and Solutions Challenge 1: Handling API Errors

 Issue: Intermittent failures during data fetching. Solution: Implemented retries and error logging.

Challenge 2: Data Mapping Issues

- Issue: Inconsistent field names between API and Sanity.
- Solution: Adjusted the mapping logic and verified field integrity.

Conclusion

The API integration process for ShopCo was successfully completed. The external API data is now dynamically fetched, stored in Sanity CMS, and displayed on the website UI. This setup ensures scalability and easy content management for future enhancements.

Next Steps:

- Implement search and filter functionality.
- Add caching for API calls to improve performance.

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