HACKATHON DAY - 2

Technical Foundation Of Your E-Commerce Marketplace

Step:1 Define Technical requirements:

1.Frontend Requirements:

a.User-friendly Interface UI:
Showcase a pixel-perfect UI to make our website more attractive.

b.Responsive Design:
Make our Rental E-Commerce website responsive on users mobile,tablet and other devices .

c.Essential Pages:
Here are some basic and essential pages ;

- **Home/Landing Page:**
  Showcase highly featured products & categories.
  Include sections like decorations,vehicles & electronics.
- **Category Page:**
  This page contain cars by category like Sports Car, Luxury Cars etc.
  This page contains product by category and has a side dashboard of category.
- **Product Details Page:**
  This page highlights features like availability,condition,colour & price.
  This page contains customers reviews and ratings.
- **Contact page:**
  This page contains contact details of a customer and asked for the payment via Cash,Card & Paypal.
  This page also show the summary of the product the customer order for rent to the customer and give the customer order confirmation message.
- **Rental Billing page:**
  This page show customer product renting details including rental condition,rental duration and advance cash deposit and the remaining amount after get back the rental product.

2.Sanity CMS (Backend):

We need tools like Sanity CMS for a smooth backend data.It store data , customer contact details and order details. We can also design schemas to match customers product data . Here’s an example of data schema design for my product and order.

```
[Product]

export default Product{

_id:string/number;

name:string;

title:string;

description:string;

price:number;

tags:string;

image:{type:”image” asset:{_reference}};

reviews:string;

tags:string;

stock:number;

}
```

3.Third Party API’s:

We will use Third Party API’s to showcase smooth frontend functionality.
These API’s also handles customers payment,shipment and tracking services.

a.ShipEngine API:

This API tool provides tools for managing shipping,tracking shipments & calculating shipping costs.

b.Paypal/Stripe API:

Paypal is an online payment system enabling secure and convenient online transactions between individuals and businesses worldwide.

c.Postman API:

Postman is an API that enables testing,developement and collaboration for API’s with tools for automation and integration.

Step 2: Designing System Architecture:

Design image in pdf form attached below.

Step 3: Plan API requirements:

Here is some API Endpoints based on my schema.

Endpoints	Method	Description	Response
/api/products	GET	Get a list of all products	[{’’id’’:’’1",’’name”:”Porsche ”,”price”:$10,000,”stock”:”10”,”image”:”url-to-image”},{”id”:”2",”name”:”Nissan GTR”,”price”:$20,000}]
/api/category	GET	Get a list of product by category	{”categories”:”Sports Cars”}
/api/product/:id	PUT	Add product on site	{success:true}
/api/rental duration	GET	Add rental details for a specific product	{”confirmationId”:”098ADEr4",”status”:”Success”}
/api/order	POST	Place order with customer and product details	{”orderId”:”ADF4568E”,”status”:”confirmed”},{”productId”:”1",”productName”:”Porsche”,”productPrice”:$10,000}
/api/shipment	GET	Retrieve a shipment status for a specific order	{”shipmentId”:”1ADEW2345",:orderId”:”ADF4568E”,”status”:”available”,”expectedDelieveryDate”:”2025-22-05"

Step 4:Create a Data Schema :

1.[Products]:

```
export default {
name:”Product”,
type:”document”,
fields:[
{name:”name”,type:”string”,title:”Product Name”},
{name:”price”,type:”number”,title:”Original Price”},
{name:”stock”,type:”number”,title:”Stock”},
{name:”image”,type:”string/array”,title:”Image”},
{name:”discount”,type:”string”,title:”Discounted Price”},
]
```

2.[Customer]:

```
name:”Customer”,
type:”document”,
fields:[
{name:”name”,type:”string”,title:”Customer Name”},
{name:”details”,type:”string”,title:”Customer Details”},
]
```

3.[Order]

```
export default{
name:”Order”,
type:”document”,
fields:[
{name:”customer_Id”,type:”string/number”,title:”Customer Id”},
{name:”amount”,type:”number”,title:”Total Amount”},

{name:”product_Id”,type:”sring/number”,title:”Product Id”},

{name:”quantity”,type:”number”,title:”Quantity”},

{name:”order_Id”,type:”string/array”,title:”order_Id”},

]}
```

4.[Rental Details]

```
export default {

name:”Rental Details”,

type:”document”,

fields:[

{name:”duration”,type:”number/string”,title:”Rental Duration”},

{name:”deposit”,type:”number”,title:”Deposirt Amount”},

{name:”status”,type:”string”,title:”Condition Status”},

]}
```

Conclusion:

This websit is designed to make your life easier. It provides people affordale,flexible and sustainable access of expensive and rarely-used products for temporary ownership.