Day 1 Hackathon Report: Establishing the Marketplace Framework 🚀

Step 1: Selecting the Marketplace Model

Chosen Model: General E-Commerce

Core Objective: Comforty is designed to streamline the process of finding stylish, durable, and budget-friendly furniture. By consolidating a wide range of furniture options on a single online platform, Comforty removes the need for customers to visit multiple stores, making furniture shopping effortless and efficient.

Step 2: Defining Business Objectives

Problem Statement: Comforty aims to address the common challenge of accessing high-quality and aesthetically pleasing furniture without the inconvenience of visiting physical stores.

Target Audience:

- **Homeowners**: Individuals looking for customizable and stylish furniture to enhance their living spaces.
- **Office Managers**: Professionals seeking ergonomic and functional furniture for work environments.
- **Interior Designers**: Experts requiring premium furniture to meet client needs.

Products and Services Available:

- Armchairs
- Desk Chairs
- Wing Chairs
- Wooden Chairs
- Park Benches
- Sofas

Key Differentiators:

- **Customization**: Customers can personalize furniture materials and designs to fit their preferences.
- **Affordability**: Competitive pricing strategies, including regular discounts.
- **User-Friendly Interface**: A seamless browsing experience with advanced search and filtering functionalities.

Step 3: Structuring the Data Model

Identified Entities:

1. **Products**: Items listed for sale.
2. **Orders**: Records of customer purchases.
3. **Customers**: Buyers interacting with the platform.
4. **Delivery Zones**: Geographic areas covered by the delivery service.
5. **Shipments**: Logistics and delivery tracking of orders.

Entity Relationships:

- **Products** → Associated with **Orders** → Linked to **Customers**
- **Orders** → Connected to **Shipments** → Managed within **Delivery Zones**

Example Data Model:

```
[Product]
- ID
- Name
- Price
- Stock
        |        |
[Order] --------> [Customer]
- Order ID
- Customer ID
- Product ID
- Name
- Quantity
- Contact Info
        |        |
[Shipment] <------- [Delivery Zone]
- Shipment ID
- Zone Name
- Order ID
- Coverage Area
- Status
- Assigned Driver
```

Key Data Fields for Each Entity:

Products:

- **ID**: Unique identifier.
- **Name**: Product title.
- **Price**: Unit cost.
- **Stock**: Available quantity.
- **Category**: Classification (e.g., Chairs, Sofas).
- **Tags**: Keywords for search optimization (e.g., "Ergonomic", "Wooden").

Orders:

- **Order ID**: Unique transaction identifier.
- **Customer Info**: Name, contact details, and address.
- **Product Details**: List of purchased products, quantities, and prices.
- **Status**: Order progress (e.g., Pending, Shipped, Delivered).
- **Timestamp**: Order placement date and time.

Customers:

- **Customer ID**: Unique identifier.
- **Name**: Full name.
- **Contact Info**: Phone number and email.
- **Address**: Shipping location.
- **Order History**: Record of past purchases.

Delivery Zones:

- **Zone Name**: Identifier for the service region.
- **Coverage Area**: Cities or postal codes included in delivery.
- **Assigned Drivers**: Delivery personnel details.

Shipments:

- **Shipment ID**: Unique identifier.
- **Order ID**: Corresponding order reference.
- **Status**: Current state (e.g., In Transit, Delivered).
- **Delivery Date**: Expected or completed delivery date.

Schema Validation & Alignment with Business Goals:

- Ensuring efficient inventory management, order tracking, and customer interaction.
- Confirming the model's capability to meet Comforty's mission of providing an accessible and hassle-free furniture shopping experience.