Product Description Document for Developers

Complete UI/Backend Product Structure

GOAL

Design and implement a dynamic product card and detail view system that can adapt to any product type (e.g., Books, Clothing, Electronics, Groceries) using a shared product structure with flexible attributes.

CORE PRODUCT FIELDS

- id: Unique identifier

- name: Name of the product

- category: Type/category of product (e.g., "Book", "T-shirt")

- price: Price of the product (Rs. 499.00, $39.99 etc.)

- description: Short description or summary

- imageUrl: Link to product image

- attributes: Dynamic key-value pairs based on product type

DYNAMIC FIELDS (Attributes JSON)

Each product type will have custom attributes stored as JSON.

Example: Book
```
{
  "author": "J.K. Rowling",
  "pages": 320,
  "language": "English",
  "publisher": "Scholastic"
}
```

Example: Clothing
```
{
  "brand": "Nike",
  "size": "L",
```

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```
  "color": "Black",
  "material": "Polyester"
}
```

PRODUCT CARD (List View Design)

- Product Image (Square thumbnail)
- Name (Bold)
- Price (Highlighted)
- Category Tag (Small pill/tag)
- Attributes (short): 2 key attributes
- View Button

PRODUCT DETAIL PAGE

- Image: Large product image
- Title: Product name
- Price: Bold and big
- Description: Full paragraph
- Category: Tag
- Attributes: Grid of dynamic fields
- Add to Cart (Optional)

ADMIN PANEL: Add/Edit Product Form

- Name: Text input
- Category: Dropdown
- Price: Number input
- Description: Text area
- Image URL: Text or file input
- Attributes: Dynamic key-value input pairs

UI DESIGN NOTES

- Card-based layout

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- Tags/chips for category

- Dynamic attributes as grid or accordion

- Responsive design

- Clean look, modern font

EXAMPLE PRODUCT JSON

```json
{
  "id": 1,
  "name": "The Alchemist",
  "category": "Book",
  "price": 299.00,
  "description": "A novel by Paulo Coelho about following your dreams.",
  "imageUrl": "https://example.com/book-cover.jpg",
  "attributes": {
    "author": "Paulo Coelho",
    "pages": 197,
    "language": "English",
    "publisher": "HarperOne"
  }
}
```