**📄 Feature Document: Product Flow – "MyOwn Store"**

**🧩 Feature Name: Product Discovery, Selection, and Purchase Flow**

**📝 Goal:**

To allow users to **search, view, select, and purchase** products easily and intuitively, ensuring smooth experience from **discovery to order placement**.

**🗂️ Module Structure & Implementation Sequence**

**🔍 1. Product Discovery Module**

**1.1 Search Bar with Autocomplete**

* **Description**: Allow users to search by product name, brand, or category with live suggestions.
* **Implementation**:
  + Frontend: Debounced search input with live dropdown.
  + Backend: /api/products/search?q= (fuzzy match).
* **Tech Tip**: Use useDebounce, and filter using regex or startsWith.

**1.2 Browse by Category**

* **Description**: Category cards or sidebar for quick filtering.
* **Implementation**:
  + Fetch /api/categories
  + Fetch /api/products?category=shoes

**1.3 Pagination / Infinite Scroll**

* Use either page query param or intersection observer (React).

**📄 2. Product Detail Module**

**2.1 Product Page View**

* **Route**: /product/:id
* **Displays**:
  + Images (carousel or thumbnails)
  + Name, price, discounted price
  + Size/variant selector
  + Add to cart
  + Description, specifications
  + Stock availability
  + Ratings + reviews
* **Backend Endpoint**: /api/products/:id
* **Additional UI**:
  + Suggested Products: /api/products/suggest/:id

**🛒 3. Cart Management Module**

**3.1 Add to Cart**

* **Frontend**: Click "Add to Cart" → POST /api/cart
* **Payload**: { productId, quantity, size }

**3.2 View Cart**

* **Route**: /cart
* **Displays**:
  + List of products with image, title, size, quantity
  + Total price
  + Option to remove or update quantity

**3.3 Update Cart**

* PATCH /api/cart/:productId
* DELETE /api/cart/:productId

**🎟️ 4. Apply Discount / Coupon**

**4.1 Coupon Input**

* UI: Input + Apply button
* API: POST /api/coupons/apply
  + Payload: { code }
  + Response: { valid: true/false, discount: 10% }

**🚚 5. Checkout Flow**

**5.1 Proceed to Checkout**

* Button on /cart page → redirect to /checkout

**5.2 Checkout as Guest or Registered**

* If logged in, pre-fill user details
* Else show guest form
* Collect:
  + Name, phone, email
  + Shipping address

**5.3 Payment Placeholder**

* UI with multiple options (Radio Buttons)
* "Place Order" triggers POST /api/orders

**5.4 Order Confirmation Page**

* Display order ID, estimated delivery
* Redirect to /orders/:id (or /my-orders)

**📦 6. Order Management & Tracking**

**6.1 View Order History**

* Route: /my-orders
* API: GET /api/orders

**6.2 Track Order**

* Route: /orders/:id
* Displays:
  + Order status bar (Ordered → Shipped → Delivered)
* API: GET /api/orders/:id

**6.3 Cancel Order**

* API: PUT /api/orders/:id/cancel

**✨ 7. Suggestions Engine (Optional – Enhancement)**

* If product not available → show alternatives.
* API: /api/products/similar/:id
* Based on category, tags, brand.

**📌 Developer Sequence (Task Tracker Friendly)**

| **Step** | **Feature Area** | **Route / API** | **Status** |
| --- | --- | --- | --- |
| 1 | Search with Suggestions | /api/products/search | ☐ |
| 2 | Browse by Category | /api/products?category= | ☐ |
| 3 | Product Detail Page | /product/:id, /api/products/:id | ☐ |
| 4 | Add to Cart | /api/cart | ☐ |
| 5 | View/Update Cart | /cart, /api/cart | ☐ |
| 6 | Apply Coupon | /api/coupons/apply | ☐ |
| 7 | Checkout Page | /checkout, /api/orders | ☐ |
| 8 | Order History | /my-orders, /api/orders | ☐ |
| 9 | Order Tracking | /orders/:id | ☐ |
| 10 | Cancel Order | /api/orders/:id/cancel | ☐ |