

# Planogram Web Application: Page Structure & Functionality

This document outlines the key pages required for the planogram management web application, based on the established database schema and functional requirements. Each page description includes its purpose, core features, and user interactions.

## 1. Login Page

- **Purpose:** Authenticate users before granting access to the application.
- **Target Users:** All users (Category Managers, Admins).
- **Functionality & Features:**
  - Displays input fields for Username (or Email) and Password.
  - Includes a "Login" button to submit credentials.
  - Handles authentication against the USERS table (via your backend API).
  - Displays clear error messages for invalid credentials (e.g., "Invalid username or password").
  - Upon successful login, redirects the user to the Dashboard Page and establishes a session/token.
  - Link for "Forgot Password?" functionality.
  - Link to the "Sign Up / Interest Form" page for prospective clients.

### 1.A. Sign Up / Interest Form Page

- **Purpose:** Collect initial information from companies interested in potentially using the planogram software. This page is for lead generation and qualification, **not** for creating end-user accounts directly.
- **Target Users:** Representatives from prospective client companies (e.g., Supermarket Managers, IT leads, Head Category Managers).
- **Functionality & Features:**
  - Clear title like "Interested in Our Planogram Solution?" or "Request Consultation".
  - Brief explanation that this form is for expressing interest and an account manager will follow up.
  - **Input Form Fields:**
    - Company Name (Text, Required)
    - Company Website (URL, Optional)
    - Business Registration number (Required)
    - Contact Person Name (Text, Required)
    - Contact Person Email (Email, Required)
    - Contact Person Phone Number (Phone, Optional)
    - Number of Stores Operated (Dropdown/Radio Buttons with ranges like

- '1-10', '11-50', '51-100', '100+', Required)
- Estimated Number of Potential Users (e.g., Category Managers) (Select Buttons with ranges like '1-5', '6-20', '21-100', '100+', Required)
- Current Planogram Method (Dropdown: 'None', 'Manual/Spreadsheets', 'Existing Software (Please specify below)', 'Other', Optional)
- If Existing Software, Which One? (Text, Optional - conditionally visible)
- Key Challenges or Needs related to Planograms (Text Area, Optional - Helps understand pain points)
- (Optional) How did you hear about us? (Dropdown/Text)
- Input validation for required fields and formats (email, URL, phone).
- A "Submit Interest" or "Request Information" button.
- **Submission Action:**
  - Sends the collected form data to a designated internal email address or backend endpoint for the sales/onboarding team.
  - **Does NOT create a user account in the USERS table.**
- Displays a clear confirmation message upon successful submission (e.g., "Thank you! We have received your information and will be in touch soon.").
- Link back to the Login Page.

## 2. Dashboard Page

- **Purpose:** Provide a high-level overview and quick access to key areas after login.
- **Target Users:** All logged-in users.
- **Functionality & Features:**
  - Displays key performance indicators (KPIs) or summary statistics (e.g., "Number of Active Planograms", "Recently Updated Products", perhaps basic aggregate sales/profit data if available).
  - Shows a list of recently accessed/modified Planograms or Products.
  - Provides quick action buttons/links (e.g., "Create New Planogram", "Add New Product").
  - May include notifications or alerts relevant to the user.
  - Acts as the main landing page after login.

## 3. Product Management Page

- **Purpose:** Allow users to view, add, edit, and delete product information.
- **Target Users:** Category Managers, Admins.
- **Functionality & Features:**
  - **List View:**
    - Displays a table or grid of products from the PRODUCTS table.
    - Columns should include key info like: Thumbnail (from ImageURL),

ProductName, SKU, CategoryName (from joined CATEGORIES), BrandName (from joined BRANDS), Dimensions (WxHxD), MRP, CostPrice.

- **Search:** Input field to search products by Name, SKU.
- **Filtering:** Options to filter products by Category, Brand, Supplier.
- **Sorting:** Ability to sort the table by various columns (Name, SKU, Category, etc.).
- **Pagination:** Handles large numbers of products by displaying them across multiple pages.
- **Actions per row:** Buttons/icons to "Edit" and "Delete" a product (with confirmation for delete).
- **"Add New Product" Button:** Navigates to the Add/Edit Product form.
- **Add/Edit Form (Can be a separate page or modal):**
  - Provides input fields for all attributes in the PRODUCTS table (SKU, ProductName, Description, ImageURL, Width, Height, Depth, MRP, CostPrice).
  - Dropdowns (populated from the backend) to select Category, Brand, Supplier (linking to CategoryId, BrandId, SupplierId).
  - Input validation (e.g., required fields, numeric values for dimensions/prices, valid URL format).
  - "Save" button to submit the form (calls backend API to create/update).
  - "Cancel" button to discard changes and return to the list view.
  - When editing, the form should be pre-populated with the existing product data.

#### 4. Fixture Management Page

- **Purpose:** Allow users to define and manage the physical fixtures (shelving units) used in planograms.
- **Target Users:** Category Managers, Admins.
- **Functionality & Features:**
  - **List View:**
    - Displays a table/grid of fixtures from the FIXTURES table.
    - Columns: FixtureName, FixtureType, Dimensions (Width, Height, Depth), NumShelves.
    - Search/Filter/Sort capabilities similar to the Product list (e.g., search by Name, filter by Type).
    - Pagination.
    - Actions per row: "Edit", "Delete" (with confirmation).
    - **"Add New Fixture" Button:** Navigates to the Add/Edit Fixture form.
  - **Add/Edit Form:**

- Input fields for FixtureName, FixtureType (maybe a dropdown: 'Gondola', 'Shelf', 'Cooler'), Width, Height, Depth, NumShelves.
- Mechanism to input ShelfDetails if needed (e.g., a text area for JSON, or a more complex UI to define individual shelf heights/depths if NumShelves > 0 and they vary).
- Input validation.
- "Save" and "Cancel" buttons.
- Pre-populates data when editing.

## 5. Category Management Page

- **Purpose:** Manage product categories.
- **Target Users:** Category Managers, Admins.
- **Functionality & Features:**
  - **List View:**
    - Displays categories from the CATEGORIES table.
    - Columns: CategoryName, Description.
    - Search/Sort capabilities.
    - Actions per row: "Edit", "Delete" (ideally prevent deletion if categories are in use by products/planograms, or handle cascading updates carefully).
    - **"Add New Category" Button.**
  - **Add/Edit Form:**
    - Input fields for CategoryName, Description.
    - Validation (e.g., name required and unique).
    - "Save" and "Cancel" buttons.
    - Pre-populates data when editing.

## 6. Brand Management Page

- **Purpose:** Manage product brands.
- **Target Users:** Category Managers, Admins.
- **Functionality & Features:** (Similar structure to Category Management)
  - **List View:** Displays brands from BRANDS table (BrandName). Search/Sort. Edit/Delete actions. **"Add New Brand" Button.**
  - **Add/Edit Form:** Input for BrandName. Validation (required, unique). Save/Cancel. Pre-populate on edit.

## 7. Supplier Management Page

- **Purpose:** Manage product suppliers.
- **Target Users:** Category Managers, Admins.
- **Functionality & Features:** (Similar structure to Category Management)
  - **List View:** Displays suppliers from SUPPLIERS table (SupplierName,

ContactInfo). Search/Sort. Edit/Delete actions. **"Add New Supplier" Button.**

- **Add/Edit Form:** Inputs for SupplierName, ContactInfo. Validation (name required, unique). Save/Cancel. Pre-populate on edit.

## 8. Planogram Management Page

- **Purpose:** Allow users to view, search, and manage existing planograms, and initiate creation of new ones.
- **Target Users:** Category Managers, Admins.
- **Functionality & Features:**
  - **List View:**
    - Displays table/grid of planograms from the PLANOGRAMS table.
    - Columns: PlanogramName, FixtureName (joined), CategoryName (joined), Status, EffectiveStartDate, EffectiveEndDate, CreatedByUsername (joined), UpdatedAt.
    - **Search:** By PlanogramName.
    - **Filtering:** By Status, Category, FixtureType, Store (if applicable).
    - **Sorting:** By Name, Status, Dates, etc.
    - **Pagination.**
    - **Actions per row:**
      - "View/Open": Navigates to the Planogram Viewer Page (for 'Active'/'Archived') or Planogram Editor Page (for 'Draft').
      - "Edit": Navigates to the Planogram Editor Page (likely only for 'Draft' status).
      - "Duplicate": Creates a new planogram based on the selected one, opening it in the Editor in 'Draft' status.
      - "Delete": Removes the planogram (with confirmation, likely only for 'Draft' or 'Archived').
  - **"Create New Planogram" Button:** Starts the process, perhaps by asking the user to select a Fixture template first, then navigating to the Planogram Editor page with a blank slate based on that fixture.

## 9. Planogram Editor Page

- **Purpose:** Provide the core visual interface for creating and modifying planogram layouts. This is the most complex page.
- **Target Users:** Category Managers, Admins.
- **Functionality & Features:**
  - **Metadata Area:** Displays/allows editing of PlanogramName, Description, Status (e.g., change Draft to Active), EffectiveStartDate, EffectiveEndDate. Selection of primary Category. (Store selection if applicable).

- **Fixture Visualization Area:**
  - Displays a scaled, visual representation of the selected Fixture (based on FixtureId linked to the planogram) including its shelves.
  - Shelves should act as drop targets.
- **Product Library Panel:**
  - Displays a list of available Products.
  - Search functionality (by Name, SKU).
  - Filter functionality (by Category, Brand).
  - Products should be draggable from this panel onto the fixture visualization.
- **Drag-and-Drop Interaction:**
  - User drags a product from the library onto a shelf in the visualization area.
  - Upon dropping, the application calculates placement based on product dimensions and available space.
  - May prompt user for Facings and StackHeight or allow adjustment after placement.
  - Visual feedback: Show product image/representation on the shelf. Prevent invalid placements (e.g., overlap, exceeding shelf dimensions).
- **Placement Modification:**
  - Ability to select placed products on the shelf.
  - Ability to change Facings, StackHeight for selected placements (via a properties panel or right-click menu).
  - Ability to drag placed products to reposition them on the same shelf or move to another shelf.
  - Ability to remove placed products from the shelf.
- **Properties/Analysis Panel:**
  - Displays details of the selected item (e.g., shelf dimensions, selected product info).
  - Shows real-time calculated metrics for the *current* planogram layout (Requirement R6): Total Units, Estimated Retail Value, Estimated Gross Profit, Shelf Space Utilization %.
- **Toolbar/Actions:**
  - "Save" button: Persists the current layout (updates PLANOGRAMS and PLANOGRAMITEMS tables via backend API).
  - "Zoom" controls.
  - (Optional) Undo/Redo functionality.
  - Button to change Status (e.g., "Mark as Active").

## 10. Planogram Viewer Page

- **Purpose:** Display a finalized or existing planogram in a read-only format.
- **Target Users:** Category Managers, Admins, potentially Store Staff (view-only role).
- **Functionality & Features:**
  - Displays the visual representation of the saved planogram layout (based on PLANOGRAMS and PLANOGRAMITEMS data).
  - Displays key metadata: Name, Status, Effective Dates, Fixture Used, Category.
  - Shows a detailed list of all products included in the planogram, along with their placement details (ShelfNumber, PositionX, Facings, StackHeight).
  - Displays the calculated analysis metrics (Total Units, Value, Profit, Utilization) for the saved state.
  - **No editing capabilities.**
  - (Optional) "Print" or "Export to PDF" button to generate a distributable version of the planogram (Requirement R7).

## 11. User Management Page (Admin Only)

- **Purpose:** Allow administrators to manage user accounts.
- **Target Users:** Admins.
- **Functionality & Features:**
  - **List View:** Displays users from USERS table (Username, Email, Role, CreatedAt). Search/Sort. Edit/Delete actions (handle deletion carefully, maybe deactivate instead). **"Add New User" Button.**
  - **Add/Edit Form:** Inputs for Username, Email, Role (dropdown: 'Admin', 'CategoryManager'), Password (require input for new, optional reset for edit). Validation. Save/Cancel. Pre-populate on edit.

## 12. Store Management Page (Admin Only - If Applicable)

- **Purpose:** Manage store locations if the application supports store-specific planograms.
- **Target Users:** Admins.
- **Functionality & Features:** (Similar structure to Category Management)
  - **List View:** Displays stores from STORES table (StoreName, Address). Search/Sort. Edit/Delete actions. **"Add New Store" Button.**
  - **Add/Edit Form:** Inputs for StoreName, Address. Validation. Save/Cancel. Pre-populate on edit.

This structured list provides a comprehensive blueprint for the pages needed in your planogram web application. Each description details the core functionality required to meet the user needs and utilize the backend API you've built.