

HydroFlow: Smart Hydraulic Product Display

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ABSTRACT

The **HydroFlow** is a modern B2B product showcase application tailored for industrial buyers in the hydraulics and pneumatics domain. Developed primarily for internal presentation and customer engagement, the app highlights **frequently purchased** components and provides a visually rich interface to navigate through products with ease. Aimed at streamlining product discovery, HydroFlow integrates features like auto-sliding image banners and a curated product carousel to present critical components such as pumps, hoses, valves, and gear couplings. Built using the Flutter framework, HydroFlow ensures a responsive and smooth cross-platform experience on Android and iOS devices. The UI adopts a clean and modern design language with dynamic cards, horizontal product lists, and intuitive navigation to engage users effectively during demos or internal reviews. The app supports personalization with user greetings, profile icons, and image-based product previews, enhancing the buyer experience. Designed to represent a real-world catalog with future extensibility for backend connectivity and transactional support, HydroFlow serves as a foundation for digital transformation in traditional industrial sales workflows. This project demonstrates the convergence of mobile **UI/UX** best practices with domain-specific needs, offering a scalable and interactive platform for showcasing industrial products in a professional and engaging manner.

WORK FLOW

1. Home Screen Module

- **Component:** App Bar, Image Carousel, Google Map Widget, Text Description
- **Function:** Provides an engaging welcome screen showcasing office images and location.
- **Action:** On app launch, the carousel auto-plays images and shows a static map of the office.
- **Key Components:**
 - AppBar: Displays app name (HydroFlow) in a minimalist style.
 - CarouselSlider: Rotates 3–4 banner images of the company/products.
 - GoogleMap: Shows office location with a pin and label.
 - Text Widget: Introductory note about HydroFlow's purpose.
- **Functionality:**
 - Users land on the Home Screen after launching the app.
 - The carousel auto-plays and is tappable.
 - Static map helps users identify the office location visually.

2. Frequently Purchased Product Module

- **Component:** Horizontal Scroll View, Cards, Image & Label
- **Function:** Highlights commonly bought products in a scrollable layout.
- **Action:** Tapping a card (future scope) can open detailed product view.
- **Key Components:**
 - SingleChildScrollView (horizontal): Enables horizontal swiping.

WORK FLOW

- Card: Holds product image and name.
- **Functionality:**
 - Scrollable card list displays items like pumps, filters, valves.
 - Designed to be modular for expansion (e.g., tap for more info).
 - Presents key offerings quickly for buyers or demo users.

3. Product Display / Detail View Module (*Future Scope*)

- **Component:** Card Grid or List View, Modal Bottom Sheet (optional)
- **Function:** Displays full product catalog (or categories) with details.
- **Action:** Users can browse or filter products based on categories.
- **Key Components:**
 - GridView or ListView: Layout for viewing multiple products.
 - Category Filter: Dropdown or Tabs for category filtering.
 - Card: Shows image, name, and short spec.
 - Button (View More): Could expand to full specs, images, or purchase inquiry.
- **Functionality:**
 1. Enables full visibility of inventory.
 2. Could link with search or filtering options.
 3. Aims to replace traditional catalogs

MODULE 1 OUTPUT

