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Technology Project Name:Product catalog with filters.

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PRODUCT CATALOG WITH FILTERS

Phase:3

MVP Implementation:

Contants:

1. Product Setup

2. Core Features Implementation

3. Data Storage (Local State/Database)

4. Testing Core Features

5. Version Control(GitHub)

Product Setup:

What You Hope to Create:

Catalog of products:

✧ Sort by brand, rating, price, category, etc.

✧ Clear user interface with responsive design

✧ Pagination and search

✧ Admin dashboard for adding or editing goods is optional.

Platforms:

- ➤ Airtable backend + Softr Fast UI Yes, a very simple UI builder.

- ➤ Glide apps are mobile-first   Yes Airtable Data Back end, which was constructed from spreadsheets, is similar to a spreadsheet plus database.

- ➤ Bubble Totally unique web application   Limited More adaptable but more rigorous education.

- ➤ Advanced filters/API by We Web + Xano Indeed, more professional Step-by-Step: Construct an Airtable Base (Your Product Database) with Software + Airtable .

Make a base named Products:

1.Include columns such as:

- ❖ Name of Product (Text)

- ❖ Category (one-choice)

- ❖ Brand (text)

- ❖ Cost (Amount)

- ❖ Score (from 1 to 5)

- ❖ Picture (attachment)

- ❖ Available (checkbox)

2.Develop a softwar Application:

- ✓ Visit Softr.io to register.

✓ Select "New Application."

✓ Attach your Airtable base.

✓ Select the "List" template.

✓ Include a list block for your merchandise.

✓ Attach the list to your table of products.

3. Use Softr to Add Filters:

Above your product list, add a filter block.

Select fields such as:

◆ Brand

◆ Category

◆ Cost (include a range slider)

◆ Rating (slider or dropdown)

✦ Filtering logic linked to Airtable fields is automatically

constructed by Software.

4. Potential Improvements:

1. Include a search bar.

2. Use unlimited scroll or pagination.

3. To manage products, create an admin-only login page (or use Airtable).

4. To limit access, add authentication.

Benefits of Using Airtable and Software:

a. No code is require.

b. Syncing data in real time

c. Design that is responsive

d. There is a free plan available.

e. Scaling to additional filters is simple.

Restrictions:

- Not appropriate for applications with hundreds of thousands of items.

- Records and page visits are limited in free plans.

- In contrast to full-code solutions, styling is constrained.

↻Other Tools Back end Filters Support for UI Glide Simple filters in Google Sheets Mobile-first.

Clean UI Stacker   Airtable   Pory   Airtable   Roles of users Internal instruments.

Bubble   Integrated database   Complete adaptability Personalized logic.

WeWeb Xano/API   High-end, excellent design.

Core Features Implementation:

Store your items in a database such as

Setup:

Make a table with the following columns:

- Name of Product

- Category (one-choice)

- Brand (one choice)

- Cost (number)

- Score (number)

- Picture (attached)

- Available (checkbox)

- An explanation (long text)

2. Display of Product Lists:

Make use of a no-code website/app builder that interfaces with Google Sheets or Airtable, such as Software, Glide, or Pory.

Setup:

1. As a data source, connect your Airtable or   Sheet.

2. Include a gallery or product list element that retrieves information from your table dynamically.

3. Add product photos, name, price, and rating to the grid or list layout.

3. The Filtering System:

Filtering blocks and widgets are typically included in no-code builders.

Setup:

Include the filter's components:

1.Depending on what the user selects, filters automatically update the products that are shown.

2.Price filters can be either min-max inputs or sliders. For more focused searches, you can combine more than one filter.

4. The ability to search:

Include a search bar element.

Setup:

1.Link search to important fields, such as brand or product name.

2.The product list is dynamically filtered in real-time when you type in the search bar.

5. Options for Sorting:

Provide buttons or a drop-down menu for sorting.

Setup:

1."Price: Low to High" is one option. "Rating: Low to High," "Newest."

2.In no-code platforms, sorting functionality is frequently integrated or set up using straightforward user interface buttons.

6. Use pagination or add more content:

Use unlimited scrolling or paginate products to increase performance.

Setup:

1.In your product list component, enable pagination.

2.Set the page size, for example, to 12 products per page.

3.As an alternative, set up Click the "Load More" button to retrieve further items.

7. View of Product Details:

Show comprehensive information when a consumer clicks on a product.

Setup:

1.Each product card should be linked to a dynamic detail page.

2.Product data is pulled from the database connection by the detail page.

3.Display the full description, photos, reviews, and specifications.

8. Design That Responds:

Typically, responsive templates are offered by no-code builders.

Setup:

1.Make use of the responsive settings built in.

2.To guarantee usability, preview on a tablet or smartphone.

9. Admin Panel is optional:

To update or add products without knowing how to code:

Setup:

1.For simple product administration, utilize Airtable's built-in interface.

2.Or use permission-controlled no-code technologies to establish a private admin area.

Examples of No-Code Tools for This Construction:

✓ Tool Goals and Essential Features.

✓ Airtable Product Database Attachments, simple editing, and filtering.

✓ A softer website developerProduct listings and drag-and-drop filters.

✓ Glide Builder for mobile appsDetails pages, filters, and search.

✓ Pory   Builder for websites Fast integration of the Airtable catalog

✓ Sheets on Google Database that is light weight Simple data storage.

DATA STORAGE(local State/Database):

Products with fields like name, price, brand, etc. are examples of structured data.

Searching and filtering:

➢ Simple front-end tool integration.

➢ Automation, authorization, and cooperation (optional).

➢ The top choices for code-free data storage are listed below, along with an explanation of how they work with a system for product catalogs.

The Greatest No-Code Data Storage Tools for Filtering :

● Airtable   Contemporary spreadsheet-database Integrated Indeed, the most widely used and potent Google Sheets Simple prototypes and catalogs   Limited   Sure, it's simple, but it's not as scalable.

● Alternative to Smart Suite Airtable Yes, better for commercial use cases.

● Airtable clone hosted on Nocode Yes Excellent for developers, Browers is open-source Database that is open-source

Airtable for Product Catalog is suggested. Why Airtable?

a) functions like a database and looks like a spreadsheet.

b) Integrated grouping, sorting, and filtering

c) use no-code solutions such as Zapier, Glide, Softr, Pory, and others.

d) Up to 1,000 records per base are supported by the free tier.

e) Construct a new base and name it Product Catalog.

Include a table named Products:

Include fields such as:

Field Type: Example Value Field Name:

Name of Product One line of text in the category of iPhone 14Electronics Price Number (currency): 999 for a single choose

Brand: Apple; one choice; Rating: 1–5; In Stock: 4.5; Checkbox Picture Attachment (picture)   Title Long text "Best phone ever..."

Airtable Filtering:

❖ To create custom views, use the "Filter" button (e.g., only show devices under $500).

❖ Use "Sort" to show the products with the highest ratings or lowest prices.

❖ Utilize "Group by" to arrange products according to brand or category.

Integrations Tool Goal:

1. Level of Integration Software Create a filterable catalog UI Native Integration of Airtable.

2. Glide is a mobile app first.Compatible with Google Sheets or Airtable.

3. Make data flows automatic with ZapierActivate fresh or updated records.

4. Pory   Easy-to-use website builderA catalog driven by Airtable.

Roles and Permissions:

❖ You may manage who can view and change the product catalog with Airtable.

❖ able to provide "read-only" views for public use

❖ If necessary, Software adds user login, roles, and permissions.

❖ Other Options ⏹ Google Sheets.

❖ The simplest to begin.

❖ Ideal for basic catalogs.

❖ Weak in data validation and filtering.

❖ SmartSuite.

❖ More focused on business than Airtable.

❖ Elegant user interface and sophisticated templates.

❖ Rapid expansion in the no-code space.

NocoDB/Baserow:

✧ For individuals seeking self-hosted.

✧ requires no coding but only a little amount of setup.

✧ More adaptable and configurable for developers.

✧ **Synopsis**: Airtable as the Greatest Option Airtable Filtering Support   Integrated Product Management User Interface Simple UI Tool Integration   Software, Glide, and Pory Collaboration Instantaneous Free Plan .

TESTING CORE FEATURES:

Verifying the functionality of a product catalog's basic features with filters without coding entails either manual testing or the use of no-code testing tools on the platforms where your catalog was created (such as Airtable + Software, Glide, or Pory). Without writing any code, you may test all the essential functionalities in a methodical manner as follows:

1. Get your product catalog ready:

1. Verify that the sample data in your product database (such as Airtable) includes a variety of entries from different brands, categories, pricing, ratings, and other factors.

2. Verify that your no-code front-end (like Software) is published and linked.

2. Test the Display of the Product List:

❖ Launch your app or website with your product catalog.

❖ Check that every product loads properly.

❖ Verify names, pricing, pictures, andadditional information display correctly.

❖ To verify responsive layout, resize the browser or mobile device.

3. Examine the Filtering Capabilities:

● Choose a filter by category → Verify that only items in that category are shown.

● Choose more than one filter (for example, category + brand) and make sure the product list is narrowed down appropriately.

● Make sure that only items that fall within the price range are displayed by using the price range slider or filter.

● Change the "In Stock" or comparable filters → Make sure things that aren't available aren't included.

● Switch between filters → Make sure filtering is updated accurately and dynamically.

4. Examine the Search:

◆ Enter terms (brand, product name) in the search bar.

◆ Verify that the results are updated instantly (or after you hit search).

◆ To test search tolerance, try typos, uppercase/lowercase words, and partial words.

5. Examine Infinite Scroll or Pagination:

● Go through the pages if you have a lot of products.

● Verify the next and previous page buttons are functional.

● Scroll down to see if new products load automatically for endless scroll.

● Verify that search and filters adhere to pagination.

6. Sorting Tests:

● Sort by using buttons or a sort dropdown:

● Price (High to Low and Low to High)

● Score (High to Low)

● The newest items

● Verify that the product order modifications are accurate.

7. Product Detail Page for Testing:

● To view a product's detail page, click on it.

● Check that the product description, pictures, and other information display accurately.

- Verify that the catalog navigation is functioning.

8. Check the responsiveness of mobile:

- Use real devices or browser development tools.

- Check that every feature (search, product list, filters) functions on phones and tablets.

- Verify that all UI components are functional and accessible.

9. Updates to Test Data:

- In Airtable, add or modify a product.

- Check that the change is visible by refreshing the front end of your catalog.

- Make sure a product no longer appears after deleting it.

10. Evaluate the User Experience:

- Have someone who isn't familiar with your catalog attempt looking through and sorting.

- Get opinions on discoverability and usability.

- Using No-Code Testing Tools is optional.

- For visual feedback and issue reporting without code, use Userback or Marker.io.

- For cross-device testing, use BrowserStack (free trial available).

- Software's Preview & Publish feature allows you to test changes before they go live.

- Feature of the Summary Table Things to Examine How to Test a Product List Without Code Properly display products.Visual inspection.

- Filtering   Filters accurately narrow results.Use UI filters and verify the outcomes.

- Search returns products that matchTry partials and keywords.

- Pagination   Switch between pages.Press the pagination buttons.

- Sorting Products are sorted by date, price, and rating.Make use of the sorting dropdown

- ✓ **Product Detail:** Click to view comprehensive informationClick on the product cards.

- ✓ All device sizes can use responsive design user interfaces.Use a mobile device or resize the window.

- ✓ Syncing Dataalterations to the frontend database updateModify Airtable and update the catalog.

VERSION CONTROL:

Excellent query! Version control typically entails monitoring modifications to your data and app layout while working with a product catalog that has filters without scripting. This allows you to properly manage updates, see history, and undo errors.

Here's how to manage version control :

1. Use Airtable to Manage Versions of Your Product Data

Document History & Editing:

➢ Every record's updates are automatically tracked by Airtable.

➢ By selecting the "Revision History" of a record (right-click a cell → "See revision history"), you can see who made changes and when.

Snapshots:

➢ Base snapshots, or backups, can be manually created with Airtable.

➢ Navigate to Settings → Snapshots → Base. Take a picture.

➢ Any snapshot can be restored to go back in time.

Editing through Views:

➢ To stage changes, use various views (e.g., a "Draft" view prior to publishing).

➢ After approval, change the view to "Published" or move the records.

2. Version Control (Softr, Glide, Pory, etc.) for Your frontend software:

Versions of the page:

You may view current modifications and go back to earlier iterations using Software's Page History window.

Backups:

You can manually backup your app or project before making significant changes.

Draft and Publish Process:

➢ Until you click Publish, all changes you make remain in draft mode

➢ This functions similarly to a basic version control step.

➢ Your app's state is automatically saved by Glide.

➢ At any time, you can make a backup or version of your app by duplicating it.

➢ Duplication is a simple manual versioning technique, however there is no comprehensive version history.

3. Google Sheets Version Control (if utilized as a backend):

➢ Version history is incorporated into Google Sheets.

➢ Previous versions can be viewed, named, and restored.

➢ Excellent for monitoring changes in product data.

4. Description of the Best Practices for Version Control|:

➢ Regularly create manual backups and snapshots.For instance, replicate bases/apps or export CSV.

➢ Use folders or draft views.Handle "In review" versus "published" goods.

➢ Make use of collaborators and commentsAllow your team to effectively convey any adjustments.

➤ Changes to the document outside of toolsTo record significant changes, use Google Docs or Airtable.

5. External backup and version control tools are optional:

➤ Zapier/Integromat → Periodically export data automatically to Google Drive or CSV.

➤ Sync Airtable data to backup files or databases using Airbyte and Parabola.

➤ Google Docs or Notion → Keep change logs on hand if necessary.

➤ Overview of the Area How to Use No-Code Version Control.

➤ Product Information History of Airtable revisions and screenshots.

➤ Software page history and draft/publish workflow in the frontend user interface

➤ Sheets for the backend Version history of Google Sheets

➤ Backup Plan Duplications, automated sync tools, and manual exports.

Key Features of a Product Catalog with Filters: 1. Product Data Storage :

Store your items in a no-code database such as Google Sheets or Airtable.

Setup:

Make a table with the following columns:

Name of Product

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Brand (one choice)

Cost (number)

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Picture (attached)

Available (checkbox)

An explanation (long text)

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➢ As a data source, connect your Airtable or Sheet.

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Filtering blocks and widgets are typically included in builders.

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- ➢ Include filter elements that are connected to data such as Brand, Category, Price range, and Rating.

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