

Lendflow Backend Assessment

Here is the product catalog data for the task below.

The Task

Imagine you work for a clothing store interested in creating an online presence. You have been tasked with building a JSON REST API that exposes their product catalog.

Someone else is building the front-end website for the store, integrating with the API.

Affiliate partners will also integrate with the API.

The Endpoints

Build a tiny REST API as a Laravel application with the following endpoints:

- `GET /api/categories` to list product categories in alphabetical order.
- `GET /api/products?categories[]=...&search=.....` to page through the product catalog with the ability to search by name, filter by categories, filter by color, filter by sale status, and filter by price.

API Versioning

A month after releasing the API, you receive a new requirement. The `?categories=...` filter on the product catalog endpoint **must be required** for new API integrations.

Adjust your API implementation to accommodate both versions of the API, depending on the integration.

- Existing API integrations must continue to function as usual. Backward compatibility breaks are strictly disallowed.
- Requests from new API integrations **must** throw a validation error without the `?categories[]=...` filter.
- The API endpoints themselves are immutable. You cannot introduce new endpoints for the new version, like `GET /api/v2/products`.

Additional Considerations

- Validation is important.
- All code should be well tested. Tests should consider edge and failure cases.
- Attention should be paid to response caching.
- Laravel features and best practices should be used.

Delivery

Publish your code to a Git service and send us a link.