Content Mate

Triples Content Managers' Productivity

Content

- The Problem
- The Solution
- How it’s Made
- Under the Hood

The Problem

The more products have an online store on display, the more potential customers it could attract.

Product cards must be visually appealing and contain actual information about goods. That is why creating product cards is labor intensive and slow process.

Long tail retail strategy means that unique items in the assortment are sold rarely, so the spendings on the content for each item affects costs significantly.

Typical Workflow Slow and Expensive

Images

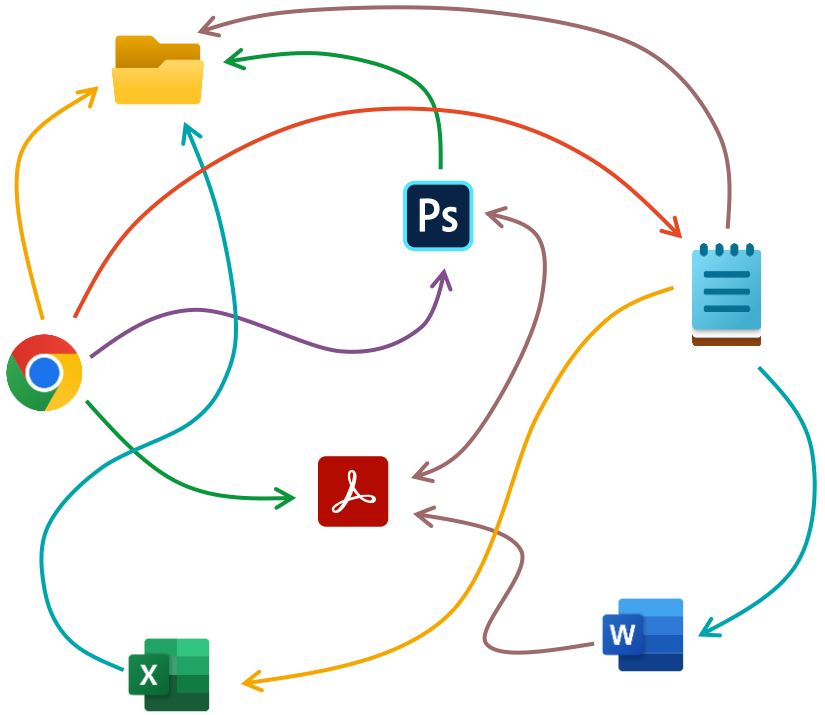
Crop, pad,
resize, enhance

Files

Download, rename,
add header and footer

Specifications

Create list
of specifications



Texts

Compose name, write preview
text and description

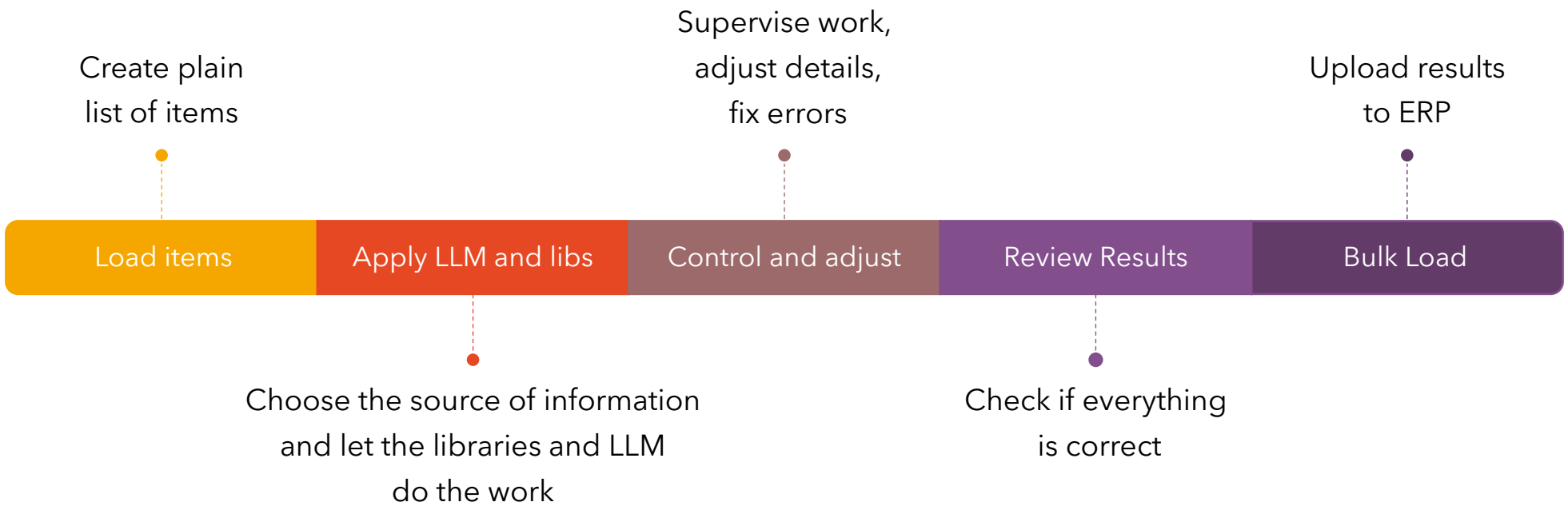
Attributes

Fill in weight, volume and other
essential attributes

Properties

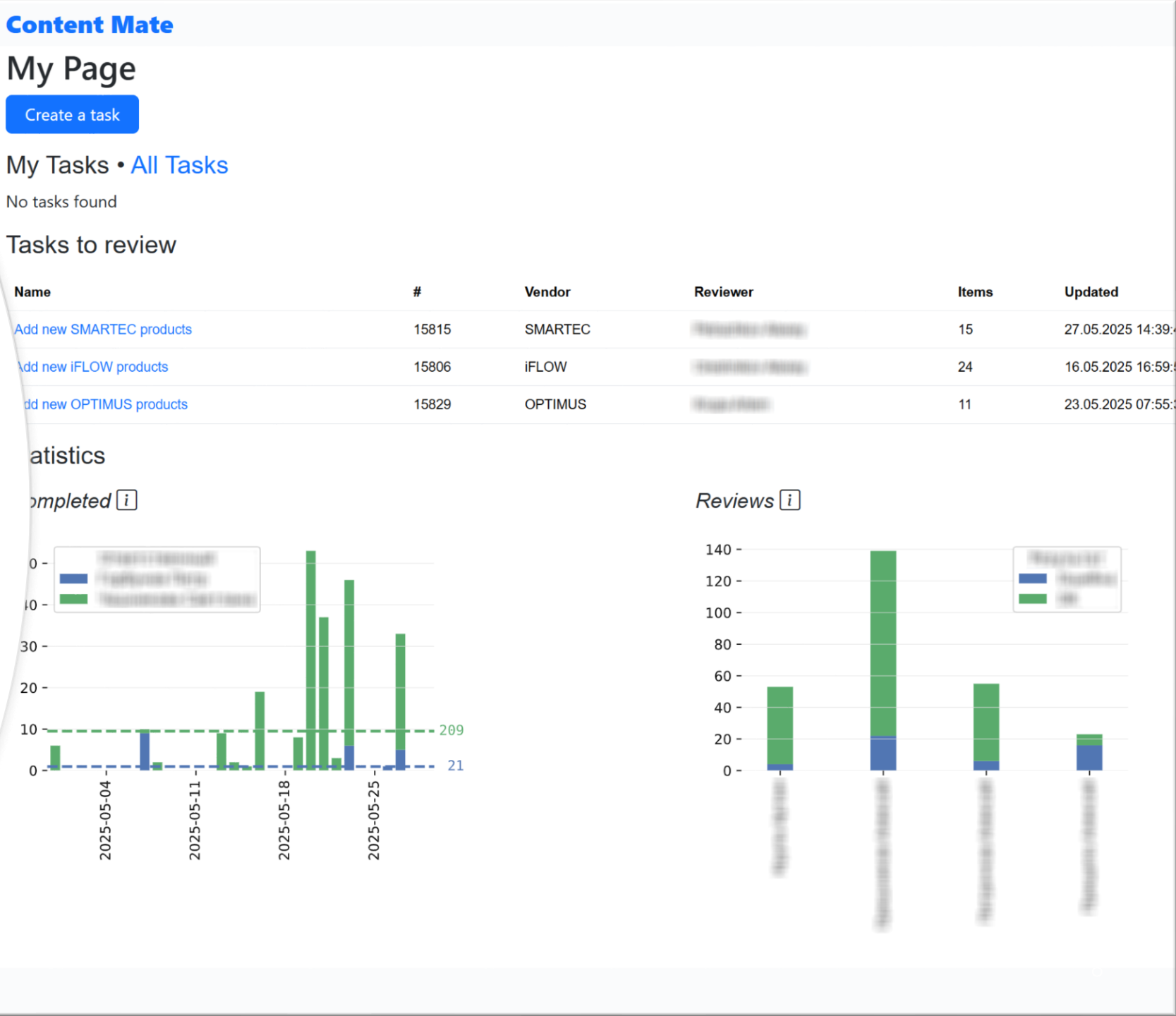
Fill list of properties varying
across categories

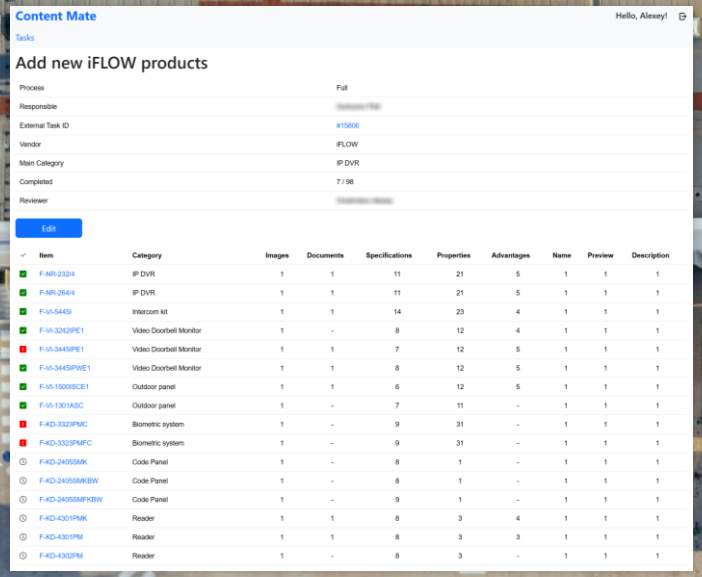
The Solution

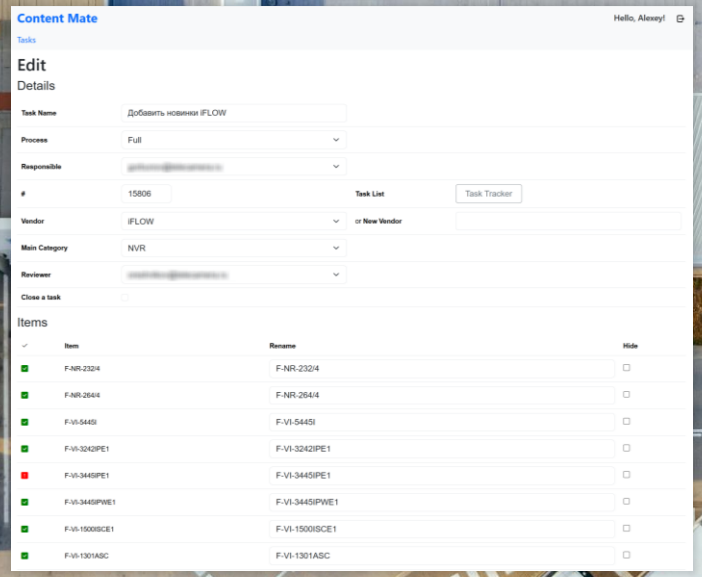


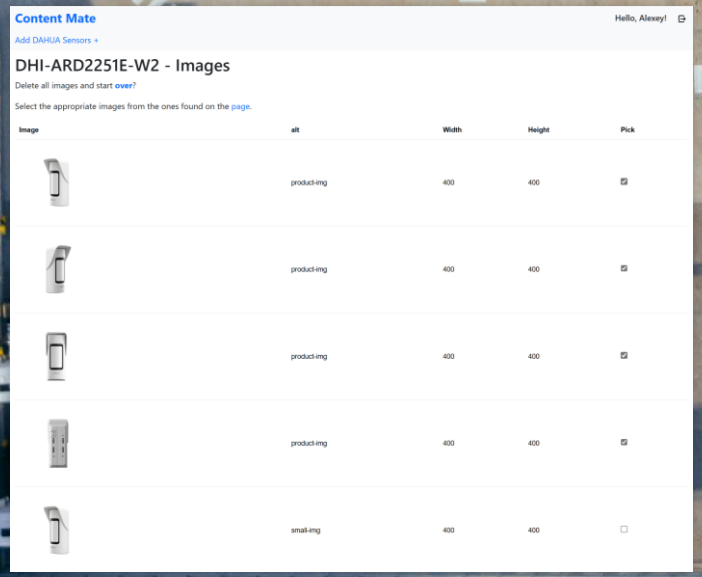
How it’s Made

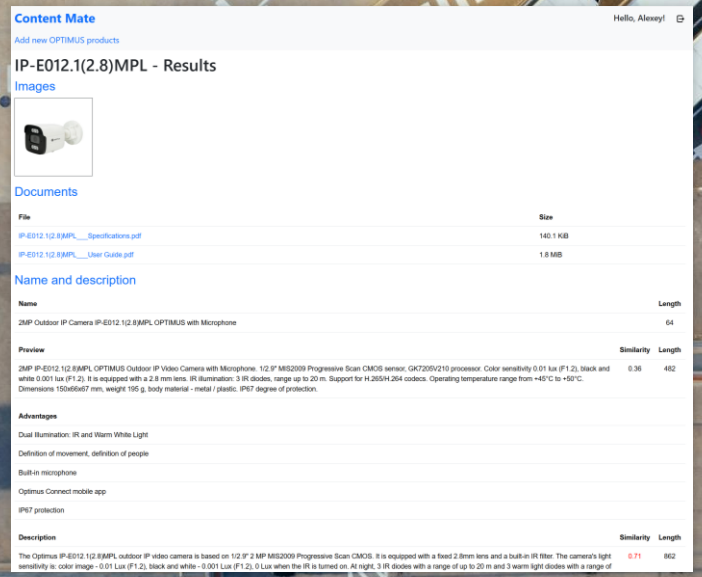
Content Mate is a web application that consolidates dozens of fragmented operations into a single interface. The input is a list of product SKUs, and the output is an archive containing processed images, PDF documents, and spreadsheets with product names, descriptions, attributes, and key features—ready for bulk upload.









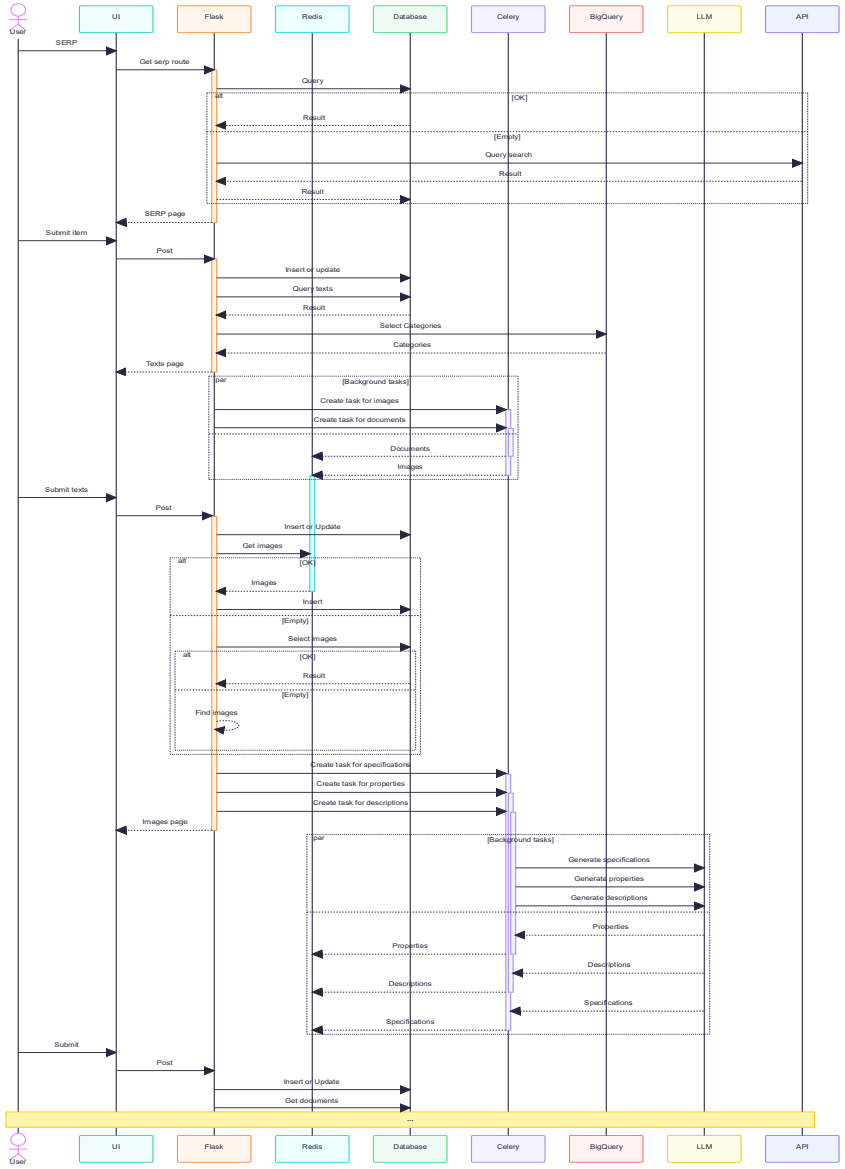


Design

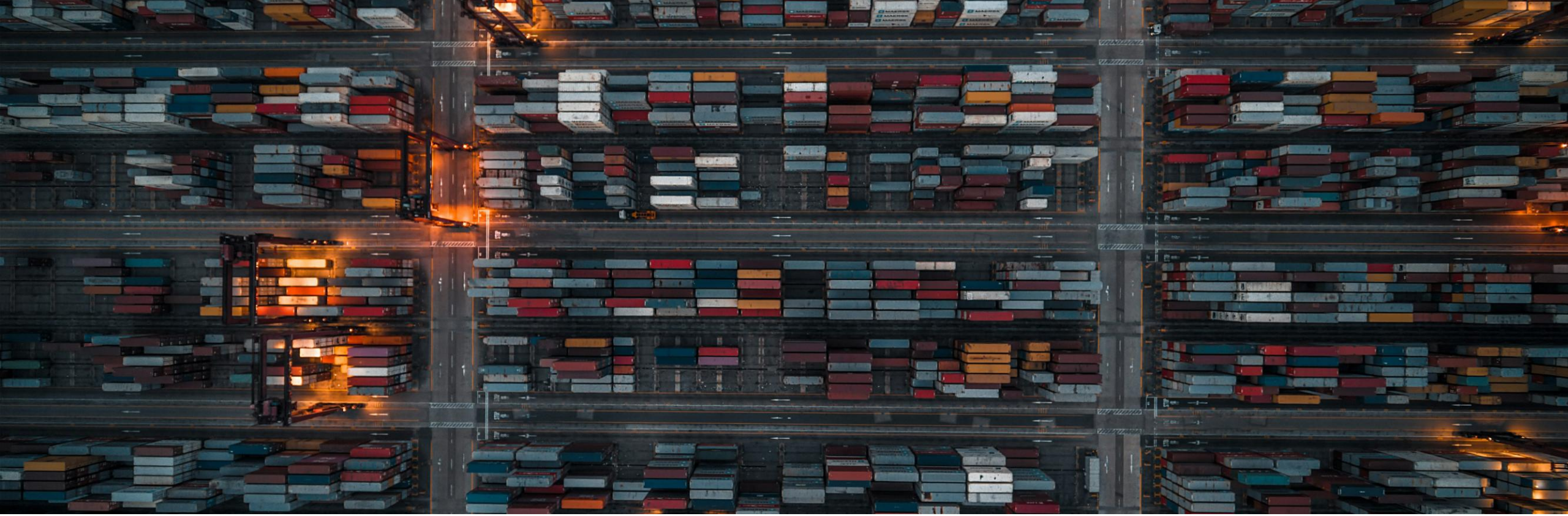
The application design is characterized by its minimalism and clarity. A consistent set of controls is maintained throughout all screens. There are two primary workflows for creation and review processes. The architecture of the application enables lengthy tasks, such as queries to the LLM, to be carried out in the background, ensuring fast and responsive user experience.

Under the Hood

- Flask, Gunicorn for serving the app
- SQLite, BigQuery, Pandas for working with data
- Celery, RabbitMQ, Redis for background and scheduled tasks
- Frontend: HTML, Jinja, CSS, JavaScript
- Libraries: bs4, pymupdf, pillow, matplotlib, langchain
- Docker compose for building



Sequence diagram of the first two screens of the creation workflow (click to open)



Aleksei Prishchepo
LinkedIn

Thank you

Images' credits

Mark König

Nana Smirnova

Marcin Jozwiak

Timelab