Cross-Platform Media App for the World's Largest Cinematic Image Database

The application is the industry's premier research tool, housing the world's largest library of fully searchable, high-definition movie images. We developed a high-performance, cross-platform software using Flutter and Dart to provide a seamless discovery and playback experience across Web, iOS and Android from a single, scalable codebase.

INDUSTRY	SERVICES	COUNTRY	DURATION
Entertainment, Media, Film Discovery, Movies, TV	Full-cycle development, Backend integration, UI/UX implementation, SEO optimization, Data migration	USA, Canada	2025 – Ongoing

Highlights

- Cross-platform Flutter app development for Web, iOS & Android
- Legacy app migration into a unified, scalable media platform
- Custom video player development with adaptive streaming previews
- SEO-optimized Flutter web app for stronger organic search visibility

Challenge

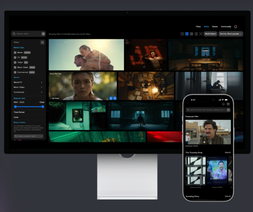
Before the migration, the client struggled with **three separate codebases** (Kotlin for Android, Swift for iOS, and Ajax/JS/PHP for Web), each with inconsistent logic and high maintenance costs.

Specific obstacles included:

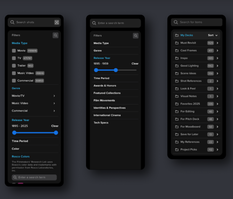
- Unifying the codebase without losing native performance.
- Safely migrating thousands of users, incl. enterprise accounts and metadata from an old version of the app to a new one.
- Efficiently handling heavy media content (millions of high-res stills and video previews) across devices.
- Integrating complex authentication (Apple, Google, Okta) and Stripe payments in a cross-platform environment.

Solution & functionality

We engineered a unified Flutter application that replaced fragmented legacy systems with a single source of truth, combining scalable architecture, advanced navigation, custom media playback, and optimized performance across Web, iOS and Android.



The system combines custom media playback, robust caching, and scalable state management to ensure seamless browsing, stable performance, and consistent functionality across web and mobile platforms.



The unified application was designed to support advanced media discovery with responsive layouts, deep linking, URL-based search, and smooth interaction across large image and video libraries.

A single Flutter codebase unified Web, iOS, and Android into one scalable product with consistent performance.

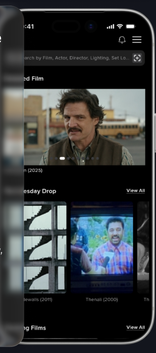
Deep linking, URL-based navigation, and SEO-ready architecture improved content discoverability across the web experience.

A custom media engine with thumbnail previews, adaptive streaming, and smart caching ensured smooth playback of rich visual content.

Secure user migration and integrations with Stripe, Okta, Firebase, Apple, and Google enabled a frictionless transition to the new platform.

Cross-Platform Media Experience

Built with Flutter for iOS and Android, this mobile solution combines responsive navigation, scalable Bloc/Cubit state management, custom caching for large media libraries, and a bespoke video player with thumbnail previews and adaptive streaming. The result is a smooth, feature-rich user experience designed for performance, consistency, and long-term scalability.



Tech stack

Core tech stack	Flutter (Dart), PHP (Codeigniter), PostgreSQL, Firebase, AWS S3
Architecture & libraries	State Management: Bloc / Cubit Navigation: GoRouter Media: Custom Video Player, Vimeo Video Player, YouTube Payments: Stripe

Team involved

The project followed a self-managed Agile process with biweekly sprints.

4 Flutter Developers: Handled UI, state management, caching, video player, and SEO.
1 Backend Developer: Managed PHP/PostgreSQL API endpoints and the complex user migration.
Team Lead / Architect: Oversaw coordination, sprint planning, and technical documentation.
2 QA: Conducted rigorous manual testing across all platforms.

Results and business value

The solution improved efficiency, performance and delivery transparency. A unified codebase lowered maintenance effort, ensured seamless migration, boosted speed and discoverability, and supported faster iteration through close day-to-day collaboration.

01 The unified codebase reduced development costs and maintenance time

02 Achieved **100% successful user** and data migration

03 Significant improvements in page load speeds and video playback fluidity

04 Faster delivery cycles with biweekly updates and demos, and rapid response to changing requirements

Do you have a similar project idea?