

**Trending** 

# Movie Explorer

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#### **Final Destination Bloodlines**



Release Date: 2025-05-14 Genres: Horror, Mystery

Plaqued by a violent recurring nightmare, college student Stef

be able to break the cycle and save her family from the grisly Production: New Line Cinema, Practical Pictures, Freshman Ye

## **Project Overview**

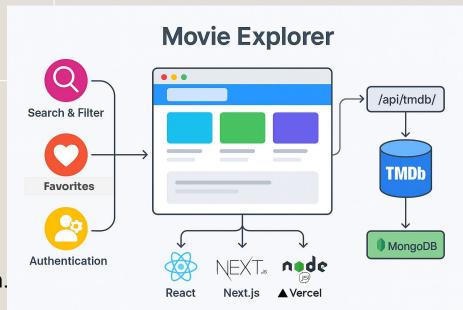
**Goal:** Build a modern movie browsing platform using TMDB API.

#### Features:

- Discover and search movies with dynamic filters.
- View trending and popular movies.
- Secure login with credentials or Google OAuth.
- Add/remove favorites (stored in-memory).
- Visual toasts for real-time feedback.

#### **Backend Highlights:**

- TMDB API proxying to hide API keys.
- MongoDB used for storing registered user accounts.



# **Project Structure**

```
movie-explorer-next/
.env.local .gitignore next.config.js package.json tailwind.config.js postcss.config.js
public/
src/
   app/
       layout.js page.js
       search/page.js
       movie/[id]/page.js
       favorites/page.js
       - login/page.js
       register/page.js
       api/
          - auth/[...nextauth]/route.js
            auth/register/route.js
            tmdb/
               - discover/route.js
              - search/route.js
               popular/route.js
              — trending/route.js
             — movies/[id]/route.js
    components/

Navbar.js MovieCard.js MovieSection.js Pagination.js

       SearchBar.js SearchFilters.js Favorites.js

LoginForm.js RegisterForm.js

    context/FavoritesContext.js SearchContext.js
   hooks/useUnifiedSearch.js usePopularMovies.js
   lib/auth.config.js mongodb.js
```

models/user.js

services/movieApi.js

# **Authentication - Login & Registration**

### **Secure Registration/Login:**

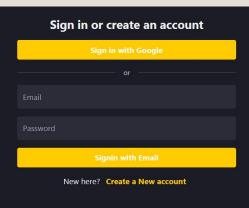
- Users can sign up with email/password.
- Passwords are hashed before storing in MongoDB.

### **Google OAuth Integration:**

One-click sign-in using Google.

### **Session Management:**

Handled via NextAuth.js with secure JWT tokens.



Create an Account
Register
Already have an account? Sign in

## Movie Discovery & Search

### **Search Functionality:**

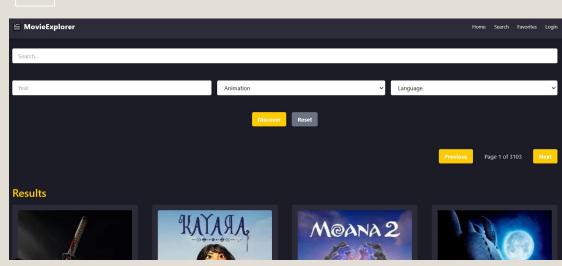
Full-text search by movie title.

### **Dynamic Filters:**

 Genre, release year, original language.

#### **Combined Search + Filters:**

Filters apply on both discover and search endpoints.



# **Backend Proxy and API Security**

### Why Proxy?

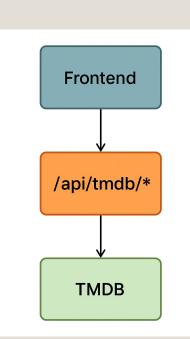
TMDB API key is hidden from frontend.

#### **Custom API Routes:**

/api/tmdb/popular, /discover, etc.

### **Dynamic Query Support:**

TMDB parameters passed from frontend (genre, year, etc.).



# State Management & Ul Enhancements

#### **State Management:**

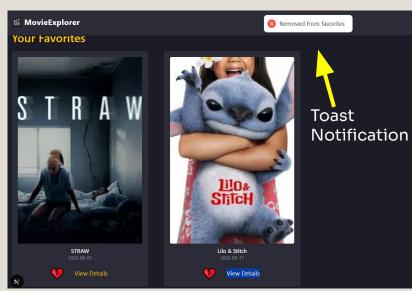
- SearchContext for shared search/filter state.
- useUnifiedSearch hook to manage API calls.

#### **User Feedback:**

Toast notifications for login, errors, favorites.

### **Responsive Design:**

Mobile-friendly layout with Tailwind CSS.



# **Database Integration - MongoDB**

#### **User Data Persistence:**

User credentials stored securely in MongoDB Atlas.

### **Current Scope:**

Favorites are stored in-memory (not yet persisted).

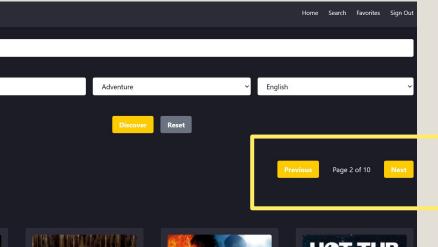
### **Security Focus:**

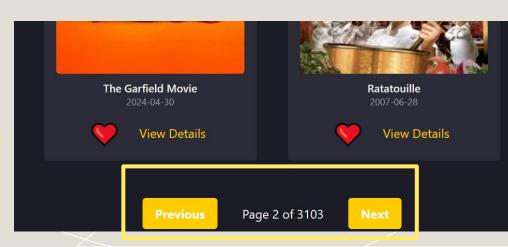
Only authenticated users can manage favorites.



## Pagination for better UX

- Splits large movie results into manageable pages
- Prevents UI clutter and improves load performance
- Works with both search and discover results
- Uses Pagination component with currentPage and totalPages
- Supports dynamic interaction via updatePage()





# **Summary & Learnings**

- Next.js App Router with server & client components
- Secure auth with NextAuth & MongoDB integration
- Robust TMDB proxying & filter/search logic
- Real-time UX with React hooks, toast, and pagination

