

Frontend Developer- Technical task: Streaming Dashboard Clone

Objective: Build a simplified streaming service dashboard (like Netflix/Hulu) using **Next.js 14 App Router** and **TypeScript**, fetching data from a **public external API**. Candidates are expected to use **AI coding tools** to accelerate development, demonstrating effective prompt engineering and code integration.

Time Limit: 1 Day (6-8 hours estimated work).

Phase 1: Setup and External API Integration

1. **Project Initialization:** Initialize a new Next.js project using **TypeScript** and **Tailwind CSS**. Initialize a Git repository for version control.
 2. **Select Public API:** Choose a simple, free public API for movie/content data (e.g., TMDb). Obtain the necessary **API Key** (if required) and note the endpoints needed for listing content and fetching details by ID.
 3. **Environment Variables:** Securely store your API Key in a local **.env.local** file. This key must be accessed only on the server side.
 4. **TypeScript Typing:** Write the necessary **TypeScript interfaces** to define the expected structure of the external API response (e.g., for **Movie** objects with properties like **id**, **title**, and **posterUrl**) to ensure type safety.
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Phase 2: Homepage (/) Development and Server Components

5. **Main Layout and Header:** Design the main application layout in the root **app/page.tsx**. Create a fixed **Header/Navigation component** (can be a Client Component for interactivity) with a logo and navigation links.
6. **Server-Side Data Fetching:** In **app/page.tsx** (a **Server Component**), use the native **fetch API** to call your **external public API**. Use the secured **environment variable** for the API key. **Do not use `useState` or `useEffect` for this primary fetch.**
7. **Hero Banner:** Render the first fetched item as a large **Hero Banner** at the top. This component **must use the Next.js `<Image/>` component** with **fill** and **priority** props for optimization and layout stability.
8. **Movie Row Component:** Develop a reusable **`<MovieRow movies={...} categoryTitle={...}/>` Client Component**. This component will handle displaying a list of posters and enabling horizontal scrolling.

9. **Dashboard Rendering:** In `app/page.tsx`, filter the fetched movie data (e.g., by category or popularity) and pass the filtered results to at least three instances of your `<MovieRow/>` component.
 10. **Link and Image Optimization:** Ensure every movie item/poster within the row uses the `Next.js <Link/>` component to enable navigation, and the `Next.js <Image/>` component for optimized poster loading.
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Phase 3: Dynamic Routing and Vercel Deployment

11. **Implement Dynamic Routing:** Create the necessary file structure for a dynamic route: `app/movie/[id]/page.tsx`.
12. **Detail Page Data Fetching:** In `app/movie/[id]/page.tsx` (a **Server Component**), retrieve the unique movie ID using the `params` prop. Use this ID to make a second, specific API call (to the external public API) to fetch the detailed information for that single movie.
13. **Render Detail Page:** Display the detailed movie information (title, description, large poster using `<Image/>`) on a responsive layout.
14. **Final Deployment:** Deploy the completed, working application to **Vercel**. During the Vercel setup, you must correctly configure the **API key** as a **Vercel Environment Variable** to ensure the production build works.
15. **Submission Documentation:** Create a file (e.g., `AI_Report.md`) detailing: a) The **AI tools** used (e.g., ChatGPT, Copilot). b) **Specific parts of the code** (e.g., Tailwind styling, complex utility functions, configuration setup) that were heavily reliant on AI-generated prompts. c) The **Vercel live URL** and the **GitHub repository link**.