

Dino Ventures: Frontend Engineer Assignment

Video Player Application

Objective

Build a mobile-first video player application with a seamless user experience similar to the YouTube mobile app. The focus should be on **smooth playback**, **gesture-based interactions**, **clean UI**, and **high performance**. (Note: Dataset on last page)

1. Home Page – Video Feed

- **Layout:** Display a scrollable list of videos grouped by category.
- **Video Cards:** Each card must include:
 - Thumbnail
 - Title
 - Duration
 - Category badge
- **Interactions:**
 - Clicking a video opens it in a full-page video player.
 - Implement smooth transitions between the list view and player view.
- **Tech Stack:** Use any modern frontend framework (React, Vue, Svelte, etc.).

2. Full-Page Video Player

- **Playback:** Video should auto-play upon opening.
- **Custom Controls:**
 - Play / Pause toggle.
 - Skip forward (+10 seconds) and backward (-10 seconds).
 - Seekable progress bar.
 - Current time / total duration display.
- **Responsiveness:** Fully responsive for both mobile and desktop.
- **Format:** Support MP4 videos (HLS support is a bonus).

3. In-Player Video List

While a video is playing, allow users to:

- **Reveal List:** Swipe up or scroll down to reveal a related video list.
- **Filtering:** Show only videos from the same category.
- **Selection:** Clicking a video from the list should:
 - Switch playback to the selected video immediately.
 - Auto-play the new video.
 - Update the list if the category changes.
- **Experience:** Ensure smooth scrolling and fluid animations.

4. Drag-to-Minimize Video Player

Implement a "Picture-in-App" experience:

- **Gestures:** Allow users to drag the video player downward.
- **Docking:** Video should shrink and dock into a **bottom mini-player**.
- **Mini-Player Features:**
 - Small video preview (continues playing).
 - Video title.
 - Play / Pause control.
 - Close button.
- **Persistence:** The mini-player should persist while the user browses the home page.
- **Restoration:** Tapping the mini-player must restore it to full-screen mode.

Bonus Challenges (Optional)

- **Auto-play Next:** Automatically play the next video in the category when the current one ends (include a 2-second countdown with a cancel option).
- **Virtualization:** Use virtual lists or infinite scrolling for large datasets.
- **PiP Support:** Implement the official Browser Picture-in-Picture API.
- **Visual Feedback:** Enhanced animations for the +10 / -10 skip buttons.

Technical Expectations

- **Design:** Mobile-first responsive design.
- **Performance:** Smooth animations (aiming for 60fps).
- **Interactions:** Robust touch and gesture support.
- **Code Quality:** Clean, readable, and maintainable code.
- **Styling:** Any approach is welcome (Tailwind, CSS-in-JS, SASS).
- **Architecture:** State management and TypeScript are optional but highly encouraged.

Submission Requirements

Please provide the following:

1. **GitHub Repository:** Public link to the source code.
2. **Live Demo:** Deployed URL (e.g., Vercel, Netlify, Cloudflare).
3. **Documentation:** A README file with setup instructions and a feature list.
4. **Demo Video:** (Optional) A short screen recording of the app in action.

Evaluation Criteria

- **Completeness:** Are all core requirements, including the video feed and custom controls, fully implemented?
- **UI / UX Quality:** Is the interface intuitive, visually polished, and consistent with modern mobile standards?
- **Code Structure & Clarity:** Is the project organized logically, with clean, readable, and maintainable code?
- **Performance & Smoothness:** Does the app feel "native," maintaining high frame rates during transitions and touch interactions?

Dataset

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