

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

{"categories": [{"category": {"slug": "social-media-ai", "name": "Social Media AI"}, "iconUrl": "https://media.samajsaathi.com/icons/learn-ai/04-social-media-ai.png"}, {"contents": [{"title": "AI Motivational Reel Banao Free Mein", "mediaUrl": "https://youtube.com/embed/_HL7I_62bUc", "mediaType": "YOUTUBE", "thumbnailUrl": "https://v3b.fal.media/files/b/0a877b29/TC9Jbr_MBNoEJm5Mwhc2F.png", "slug": "_HL7I_62bUc"}, {"title": "Social Media Ke Liye Facts Video Banao", "mediaUrl": "https://youtube.com/embed/avZd1bSvqyE", "mediaType": "YOUTUBE", "thumbnailUrl": "https://v3b.fal.media/files/b/0a877b28/7hy7WSculPFwQtcVu0BzN.png", "slug": "avZd1bSvqyE"}, {"title": "Instagram Ka Naya AI Feature", "mediaUrl": "https://youtube.com/embed/meTqNn1P5A", "mediaType": "YOUTUBE", "thumbnailUrl": "https://v3b.fal.media/files/b/0a877b2a/T6DpgH_xrEN15r1f3rq_u.png", "slug": "meTqNn1P5A"}, {"title": "Ab Meta AI Krega Aapki Photo Edit", "mediaUrl": "https://youtube.com/embed/x3LsfGSP-Hk", "mediaType": "YOUTUBE", "thumbnailUrl": "https://v3b.fal.media/files/b/0a877b29/Joql9g8WnlzhXj5sDCfN5.png", "slug": "x3LsfGSP-Hk"}, {"title": "AI Se Reel Banaye 1 Minute Mein", "mediaUrl": "https://youtube.com/embed/lfdxSj9xnmI", "mediaType": "YOUTUBE", "thumbnailUrl": "https://v3b.fal.media/files/b/0a877b29/F5qaMZqTNvp4Z9KmprqEv.png", "slug": "lfdxSj9xnmI"}, {"title": "Instagram AI Character Kaise Banaye", "mediaUrl": "https://youtube.com/embed/LX598gRezv4", "mediaType": "YOUTUBE", "thumbnailUrl": "https://v3b.fal.media/files/b/0a877b28/r_1g2P1AnedS4SSN89vwG.png", "slug": "LX598gRezv4"}, {"title": "Trending 3D AI Photo Kaise Banaye", "mediaUrl": "https://youtube.com/embed/BDN_N-mAbkU", "mediaType": "YOUTUBE", "thumbnailUrl": "https://v3b.fal.media/files/b/0a877b28/rKMuPZJCl1S9wlP-knMt.png", "slug": "BDN_N-mAbkU"}, {"title": "Social Media Content Ke Liye Best AI Tools", "mediaUrl": "https://youtube.com/embed/ogAG6GcmHjQ", "mediaType": "YOUTUBE", "thumbnailUrl": "https://v3b.fal.media/files/b/0a877b29/M-Gw4R2hoRC29el9zQ-ul.png", "slug": "ogAG6GcmHjQ"}, {"title": "AI Tools Se Asani Se COntent Creator Bano", "mediaUrl": "https://youtube.com/embed/mobK-kGDxWo", "mediaType": "YOUTUBE", "thumbnailUrl": "https://v3b.fal.media/files/b/0a877b29/9kGHRX9Gj9OcEJwBuVDt1.png", "slug": "mobK-kGDxWo"}, {"title": "AI Ki Madad Se Faceless Videos Banao", "mediaUrl": "https://youtube.com/embed/6ZqxfloJ3Vk", "mediaType": "YOUTUBE", "thumbnailUrl": "https://v3b.fal.media/files/b/0a877b28/y9MpZDul2z1kZV_mNA2Qd.png", "slug": "6ZqxfloJ3Vk"}]}, {"category": {"slug": "ai-income", "name": "AI Income"}, "contents": [{"title": "Yeh Free AI Tool Se Paise Kamao", "mediaUrl": "https://youtube.com/embed/TpW3QxwADgE", "mediaType": "YOUTUBE", "thumbnailUrl": "https://v3b.fal.media/files/b/0a877b2e/SK5TdlG5x5Tc-KG29U_Jm.png", "slug": "TpW3QxwADgE"}, {"title": "AI Clone Se Paise Kamao", "mediaUrl": "https://youtube.com/embed/Wi9cKN6Fg1E", "mediaType": "YOUTUBE", "thumbnailUrl": "https://v3b.fal.media/files/b/0a883ea8/MuPkctStazw3lmTOJGIm.png", "slug": "Wi9cKN6Fg1E"}, {"title": "Pictory AI Se Youtube Side Income Bann Saka Hai?", "mediaUrl": "https://youtube.com/embed/mkGhOo_oB4o", "mediaType": "YOUTUBE", "thumbnailUrl": "https://v3b.fal.media/files/b/0a877b2f/uOV2zrTv8yrsXW3v5nKX2.png", "slug": "mkGhOo_oB4o"}, {"title": "DesiVocal Se Bharpur Paise Kamao", "mediaUrl": "https://youtube.com/embed/k-aVj_Geyvc", "mediaType": "YOUTUBE", "thumbnailUrl": "https://v3b.fal.media/files/b/0a877b2e/MBiZLEvaN7FdmVqUDZcJR.png", "slug": "k-aVj_Geyvc"}, {"title": "AI Se WordPress Plugin Banakar Paise Kamao", "mediaUrl": "https://youtube.com/embed/gUDRMsW3v1U", "mediaType": "YOUTUBE", "thumbnailUrl": "https://v3b.fal.media/files/b/0a877b2f/RWn-4G0CcDogRcsUuZHY.png", "slug": "gUDRMsW3v1U"}, {"title": "Quick Money AI Se Kamao", "mediaUrl": "https://youtube.com/embed/I93GvazYTuc", "mediaType": "YOUTUBE", "thumbnailUrl": "https://v3b.fal.media/files/b/0a877b2e/owJQOWUFIWuxa7HZuagET.png", "slug": "I93GvazYTuc"}, {"title": "AI Hindi Story Se Youtube Pe Paise Kamao", "mediaUrl": "https://youtube.com/embed/ibl3RRJN0Wg", "mediaType": "YOUTUBE", "thumbnailUrl": "https://v3b.fal.media/files/b/0a883f60/F8LDntc6q7xMdyJfJC17W.png", "slug": "ibl3RRJN0Wg"}, {"title": "Kya Hum AI Se Active Income Bana Saka Hai?", "mediaUrl": "https://youtube.com/embed/TPtAAW3LSP4", "mediaType": "YOUTUBE", "thumbnailUrl": "https://v3b.fal.media/files/b/0a877b2e/B7yW2SjAclyMReSqcYSfM.png", "slug": "TPtAAW3LSP4"}, {"title": "Fiverr Par AI Se Paise Kamao", "mediaUrl": "https://youtube.com/embed/JrbFF30SHzc", "mediaType": "YOUTUBE", "thumbnailUrl": "https://v3b.fal.media/files/b/0a883ea7/LOY5sDu5YgN2GaPpJXg5J.png", "slug": "JrbFF30SHzc"}, {"title": "AI Tool Se Side Business Shuru Karo!", "mediaUrl": "https://youtube.com/embed/VKpqO2FXa0", "mediaType": "YOUTUBE", "thumbnailUrl": "https://v3b.fal.media/files/b/0a877b2e/GuuKXPXsea-n1IM1VW6jt.png", "slug": "VKpqO2FXa0"}]}, {"category": {"slug": "ai-essentials", "name": "AI Essentials"}, "contents": [{"title": "50 Lakh Ki AI Course Bilkul Free!", "mediaUrl": "https://youtube.com/embed/DzCWyUcr9LQ", "mediaType": "YOUTUBE", "thumbnailUrl": "https://v3b.fal.media/files/b/0a877b39/BhkweJb1D0L7oiuL4XdSo.png", "slug": "DzCWyUcr9LQ"}, {"title": "Google Ka AI Course 100% Free!", "mediaUrl": "https://youtube.com/embed/kmHt5BHXYvU", "mediaType": "YOUTUBE", "thumbnailUrl": "https://v3b.fal.media/files/b/0a877b3a/3rE_mrJr2af5XMJxExUv_.png", "slug": "kmHt5BHXYvU"}, {"title": "Nvidia Ka Free Generative AI Course", "mediaUrl": "https://youtube.com/embed/_w07HdQxulw", "mediaType": "YOUTUBE", "thumbnailUrl": "https://v3b.fal.media/files/b/0a877b3a/oD30ARDLIEDQxlnlqQvwZ.png", "slug": "_w07HdQxulw"}, {"title": "Data Annotation Projects WFH Ke Liye", "mediaUrl": "https://youtube.com/embed/ua-NkDcLneo", "mediaType": "YOUTUBE", "thumbnailUrl": "https://v3b.fal.media/files/b/0a877b3a/36455B1BrDfyDFwJBByzh.png", "slug": "ua-NkDcLneo"}, {"title": "5 Best Free AI Skills Courses", "mediaUrl": "https://youtube.com/embed/sAza94JQ6v4w", "mediaType": "YOUTUBE", "thumbnailUrl": "https://v3b.fal.media/files/b/0a877b39/U9h2KU6HwQ1BX45INCy0y.png", "slug": "sAza94JQ6v4w"}, {"title": "Indian Government Ka AI Course", "mediaUrl": "https://youtube.com/embed/5kQdqXsmnBc", "mediaType": "YOUTUBE", "thumbnailUrl": "https://v3b.fal.media/files/b/0a877b39/zBWHk56rKEmLqmbWXN9N6.png", "slug": "5kQdqXsmnBc"}, {"title": "Lakhon Kamao Yeh Course Karke", "mediaUrl": "https://youtube.com/embed/losICQQ4lcE", "mediaType": "YOUTUBE", "thumbnailUrl": "https://v3b.fal.media/files/b/0a877b39/ZHWijXBxCerWgNir2fz2na.png", "slug": "losICQQ4lcE"}, {"title": "Crowdgen Platform Ka AI Training Jobs", "mediaUrl": "https://youtube.com/embed/SxtDXU_rM1s?feature=share", "mediaType": "YOUTUBE", "thumbnailUrl": "https://v3b.fal.media/files/b/0a877b3a/O9KnNgQYUNIXrTjvwZWEmE.png", "slug": "SxtDXU_rM1s?feature=share"}, {"title": "EY Aur Microsoft Ka Free AI Course", "mediaUrl": "https://youtube.com/embed/gcOFJSc-IWs", "mediaType": "YOUTUBE", "thumbnailUrl": "https://v3b.fal.media/files/b/0a877b3a/o4DNA97xHC1BixuETJS_J.png", "slug": "gcOFJSc-IWs"}]}]