

React Developer Assignment: Interactive Video Editor

Duration: 1 Week

Objective

Build a responsive, interactive video editor using React, Redux, Tailwind CSS, TypeScript, and Framer Motion, with the following key features and constraints.

Requirements

1. Video Upload & Display

- User can upload a video file (MP4 preferred).
- The uploaded video should be displayed in an editor panel.
- The editor layout must be fully responsive (works on all screen sizes).

2. Timeline Component

- Below the video player, implement a timeline view.
- The timeline must visually show the entire video duration.
- Intro and outro segments should be visually highlighted on the timeline.

3. Intro & Outro Support

- User can upload an image or video as:
 - Intro (start of video)
 - Outro (end of video)
- Intro/outro segments should:
 - Be visually represented on the timeline.
 - Allow adjusting duration (start/end time) via input sliders or drag handles.
 - Be previewable before final rendering.

4. Background Music (BGM)

- User can upload an audio file to be used as background music for the entire video.
- Display the waveform or a placeholder representation of the BGM on the timeline.
- BGM must play alongside the video preview.

5. Preview Functionality

- On clicking "Preview", the editor should:
 - Play the full video with intro and outro stitched.
 - Include background music.
 - Ensure seamless transitions.

6. Technology Constraints

- Use React + TypeScript
- Use Redux for state management.
- Use Tailwind CSS for styling.
- Use Framer Motion for animations.
- Use component-based architecture
- No third-party APIs or external services for video/audio processing - mock/hardcode all behavior.
- All assets (video/image/audio) can be stored in-memory or simulated.

Evaluation Criteria

Area	Weightage
Code Quality (TS, Components)	30%
UI/UX & Responsiveness	20%
Redux Architecture	15%
Functionality Coverage	20%
Creativity & Animations	10%
Documentation & Readme	5%

Submission Guidelines

- Share a GitHub repo or zip file of your project.
- Include a README.md explaining:
 - How to run the project.
 - Folder structure and design choices.
 - Any assumptions made.

Optional (Bonus)

- Add drag-and-drop timeline controls.
- Add a settings panel for intro/outro fade-in/fade-out.
- Allow preview trimming or playback rate change.