



Product Engineer, Take Home Assessment

Expected duration: 3 hours

Please submit your response within 48 hours

Objective: Build a movie review web application using React and node.js that allows users to input a movie review, generate a sentiment analysis of the review, and store that in a table for others to agree/disagree with.

Requirements

Functionality

Create a web app using React and node.js that has the following components. Note, these are suggestions, as long as the web app can perform the actions described, you are free to construct a UI that you believe is best:

- A button labeled "Add Review" that will open a textbox where users can input text. Example text is provided at the bottom of this document.
- A button labeled "Analyze" that will process the sentiment analysis.
- A component that displays the result (e.g., "Positive", "Negative", or "Neutral").
- Integration with AI/ML tools, such as [Cohere](#), [HuggingFace](#), [Google's Cloud Natural Language](#), OpenAI, [MonkeyLearn](#) etc. Note, each tool outputs a different value, and you may need to set thresholds for "Positive", "Negative", or "Neutral" outputs. Call the API when the "Analyze" button is clicked and display the result on the frontend. You do NOT need to train your own model.
- Each analyzed review, along with the date and time of the review, should be added to a table
- The user should be able to upvote/downvote the review, and all reviews in the table are sorted by number of votes. For the purpose of this assessment, assume that you can upvote/downvote as many times as you like.
- You are not required to store information in a database, and can store it in app state.

Deliverables

- A repository link (e.g., GitHub, GitLab), or Google drive link containing your code.
- If applicable, documentation in the README.md on how to run the app locally.
- A PDF answering the following questions. Please limit your answers to at most two sentences:
 - Describe a limitation of your application?
 - If given more time, what features would you like to add?

Bonus:

- Use Next.js
- App has a responsive design, and can adjust based on screen size



- Deploy the app to Vercel and share the link!

Evaluation Criteria

- **Functionality:** Does the app work as expected?
- **Code quality:** Is the code organized, clean, and commented when necessary?
- **UI/UX:** Is the app user-friendly and intuitive?
- **Error handling:** How does the app handle potential issues?
- **Documentation:** How well-documented is the code and setup instructions?

Example Movie Reviews

The sentiment here is just an example, it is okay if the AI application used does not return the same sentiment. Feel free to use chatGPT to generate more examples.

Positive

"This film stands out in today's cinema landscape. Every scene is thoughtfully crafted, and the characters have depth and nuance. The story flows naturally, keeping viewers engaged. It's a high point in recent movie releases."

"The film wields a powerful narrative, fused with a humor that's both organic and poignant. Our protagonist's journey is a tapestry of emotive beats, matched by an equally evocative score. The performances here aren't merely acted; they're lived. This is cinema in its most resonant form."

"This film is a breath of fresh air. Beautifully shot scenes and a compelling storyline make it a standout. The cast's chemistry is palpable, driving the narrative forward with ease. A delightful cinematic experience from start to finish."

"A captivating blend of drama and wit. The director's vision shines through every frame, complemented by a pitch-perfect score. Performances are top-notch, drawing viewers into the heart of the story. It's a film that lingers long after the credits roll."

Neutral

"While the movie had its moments, it failed to leave a lasting impression. The cast did their job, but the script lacked depth. The music was fitting but forgettable. Overall, an average experience."

"There are moments of brilliance, but they're spread thin. Some themes resonate, but the delivery isn't always there. The music fits but isn't standout. It's a mixed bag overall."



"The movie is competently made, with moments that genuinely shine. However, the story often treads familiar territory, making it predictable at times. While the actors put forth solid performances, the script limits their potential. An even mix of highs and lows."

"It's a film that has its moments but fails to fully captivate. The visual appeal is there, but the emotional depth is inconsistent. Some scenes are beautifully executed, while others fall flat. A decent watch but not groundbreaking."

Negative

"The movie starts with promise but soon disappoints. It drags at times, and some dialogues feel forced. Despite a talented cast, the script doesn't do them justice. It's a forgettable outing."

"The film, regrettably, buckles under the weight of its own aspirations. Amidst its sprawling narrative, the essence is lost, characters relegated to mere shadows. Even its cinematographic choices, while occasionally inspired, largely feel derivative. A cinematic journey that promises much but delivers little."

"Despite its potential, the film doesn't quite hit the mark. The narrative feels disjointed, often losing its momentum. While there are a few standout performances, they're overshadowed by a lackluster script. A missed opportunity in storytelling."

"The movie offers a premise filled with promise but struggles in its execution. Pacing issues detract from key moments, and character development is lacking. While it boasts some well-composed shots, they're not enough to lift the overall experience. A film that's less than the sum of its parts."