Task Description:

Create a simple Node.js application that takes a user's text input and uses an AI model to perform sentiment analysis on the input, categorizing it as positive, negative, or neutral. The application should also provide a confidence score for the predicted sentiment.

The application should consist of the following components:

1. Front-end:
    - Design a simple web page with an input form for the user to submit text.
    - Display the sentiment analysis results (sentiment category and confidence score) on the page after the analysis is complete.
2. Back-end:
    - Implement a RESTful API using Express.js to handle user input and communicate with the AI model.
    - Use an AI model - TensorFlow.js, for sentiment analysis.
    - Return the sentiment analysis results to the front-end.
3. Documentation:
    - Provide a README file that explains how to set up and run the application.
    - Include inline comments in your code where necessary to improve readability.

Deliverables:

- Complete source code of the Node.js application (including HTML, CSS, and JavaScript files).
- A README file with instructions on how to set up and run the application.

Example:

- Input Text: I had an amazing day at the park with my family.
- Output:

  Sentiment: Positive

  Confidence: 0.8501

Evaluation Criteria:

- Functionality: The application should work as described and provide accurate sentiment analysis results.
- Code quality: The code should be clean, modular, and follow best practices for Node.js development.
- AI model integration: The candidate should demonstrate an understanding of using an AI model within a Node.js application.
- Documentation: The README file should be clear, concise, and helpful for users who want to run the application.

Submission Instructions:

Please submit a zip file containing all the required files and folders. Alternatively, you can provide a link to a GitHub repository containing the complete assignment.