

# React App for Review Sentiment Analysis

## ### Task 1: Setup and Display Reviews

1. Create a new React application on the [codepen.io](https://codepen.io)
2. Create a component named `ReviewList` to fetch and display reviews from the provided JSON file.
3. The reviews data is present in a file named '[reviewsData.json](#)'. You can download the file from the given link

## ### Task 2: Highlight Sentences and Apply Colors

1. Implement a component called `ReviewHighlighter` to display reviews and highlight sentences based on sentiment.
2. Use the `analytics` property in each review to determine sentences and their corresponding sentiments.
3. Apply colors to sentences based on sentiment (e.g., color code for each sentiment is given in the resource section).

## ### Task 3: Tooltip with Sentiment Topics

1. Create a `Tooltip` component that appears on hovering over highlighted sentences.
2. Extract the sentiment topic from the analytics data and display it in the tooltip.

## ### Task 4: Design and Styling

1. Design the UI based on the provided screenshots, ensuring a clean and user-friendly interface.
2. Apply CSS styles to the components for proper formatting and alignment.
3. Use the provided highlight colours for each sentiment.

## ### Task 5: Optional - Use Highlight Indices

1. If the candidate wants an additional challenge, implement the optional `highlight\_indices` property to highlight sentences using specific start and end indices.

## ### Description of properties in the review object

Example:

```
{
  "reviewer_name": "Barbara",
  "content": "We had a relaxing time ♥️.\n\n[Positive]: The spa was excellent. We had a wonderful relaxing time! [Negative]: The food choices at the Rowe restaurant. Parking should be included in your stay because you pay a lot to stay here already.",
  "raw_content": "We had a relaxing time ♥️.\n\n[Positive]: The spa was excellent. We had a wonderful relaxing time! [Negative]: The food choices at the Rowe restaurant. Parking should be included in your stay because you pay a lot to stay here already.",
  "date": "05 Dec 2023",
  "rating_review_score": 10.0,
  "out_of": 10.0,
  "source_language": "en",
  "source": {
    "name": "booking.com",
    "icon": "https://reviewmagic.innspire.com:8001/media/sources/booking3.png",
  },
  "analytics": [
    {
      "category": "spa",
      "topic": "spa",
      "phrases": ["spa", "spa"],
      "sentences": ["The spa was excellent"],
      "sentiment": "Positive",
      "highlight_indices": [
        [40, 61, "Positive"]
      ]
    },
    {
      "category": "facilities",
      "topic": "facilities",
      "phrases": ["parking", "parking"],
      "sentences": ["Parking should be included in your stay because you pay a lot to stay here already"],
      "sentiment": "Negative",
      "highlight_indices": [
        [155, 237, "Negative"]
      ]
    }
  ],
}
```

Description:

- **reviewer\_name**: Name of the reviewer.
- **content**: The main text content of the review.
- **raw\_content**: Unmodified original content of the review.

- **date**: Date when the review was posted.
- **rating\_review\_score**: Numeric rating given by the reviewer.
- **out\_of**: Maximum rating possible (e.g., 10.0).
- **source**: Information about the source of the review.
  - **name**: Name of the source (eg: booking.com).
  - **icon**: Icon of the source.
- **source\_language**: Language in which the review is written.
- **analytics**: Array containing sentiment analytics for specific categories.
  - **category**: Category associated with the analytics.
  - **topic**: Topic associated with analytics.
  - **phrases**: Phrases related to analytics.
  - **sentences**: Extracted sentences related to the analytics.
  - **sentiment**: Sentiment of the analytics.
  - **highlight\_indices**: Array containing start and end indices for highlighted sentences.

### ### Submission Guidelines:

1. The candidate should create a codepen for the react app.
2. Login with your email id and then share us the link of the project in a pdf with a brief explanation of what you successfully implemented/created in this project (also mention any libraries, packages or framework if you use any)
3. The pdf must be named as FullName\_MobileNumber.

### ### Evaluation Criteria:

1. **Functionality**: Ensure the React app displays reviews, highlights sentences, and shows tooltips as described.
2. **Code Quality**: Assess the clarity, organization, and readability of the React components.
3. **UI/UX**: Evaluate the design and user interface for responsiveness and adherence to the provided screenshots.
4. **Sentiment Analysis**: Verify that sentences are correctly highlighted based on sentiment, and tooltips display the correct topics.
5. **Optional Feature (if implemented)**: Assess the use of the optional `highlight\_indices` property.

This assignment is designed to assess the candidate's ability to integrate data from a file, implement dynamic UI features, and handle state management in a React application.

### ### Resources

#### Color code for each sentiment:

- **Positive:** #D9F2DD
- **Negative:** #F2DBD9
- **Mixed:** #e8bd6d3d
- **Neutral:** #eaf09b6b

#### Single review design and styling:



99onlineemail wrote a review at [tripadvisor.com](#)



★★★★★ 06 Dec 2023

A great getaway This hotel is beautiful. It is an older property but beautifully renovated. The staff is fantastic. They are very friendly and attentive. Jon at the Lobby Bar makes the BEST cocktails. For me the only drawback was the food. The pool bar does not have the best food. We ended up leaving the property for dinner every night.

#### Tooltip design on hovering over a sentence



99onlineemail wrote a review at [tripadvisor.com](#)



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A great getaway This hotel is beau food and drinks property but beautifully renovated. The staff is fantastic. They are very friendly and attentive. Jon at the Lobby Bar makes the BEST cocktails. For me the only drawback was the food. The pool bar does not have the best food. We ended up leaving the property for dinner every night.



David t wrote a review at [tripadvisor.com](#)



★☆☆☆☆ 06 Dec 2023

establishment

The Don has lost all its Charm The Don has lost its Charm ! This hotel is not the same place we have stayed at previously . The staff are not the friendly Floridans that use to make this hotel so special. Bad experience one night that was not addressed and when it was final addressed the situation was not taken seriously by the hotel .The police should have been called and if it wasn't for Shirley the on site security guard to intervene I dread to think of the outcome! Penthouse party was above are 711 room ! \$715 dollars per night , when I called down at 12.00 pm the front desk didn't want to help and dismissive of any noise . Three phone calls later now 1.00 am Security ie Shirley came to our room to confirm party on penthouse above and maybe best to move room as the party goers were drunk and rowdy. We moved room at 1.30 in the morning to be confronted by drunk party goers trying to gain access to the same lift as my wife and myself with Shirley the security guard . Dressed in just a robe I was confronted by two of the drunk party goers and the situation became very uncomfortable for my wife and myself .Shirley was confronted and managed to close the doors and escort us to a room on the lower floors . Woke up to no water no flushing toilets or showers this didn't resolve until 3.00 pm the next day . No one even asked if we were ok or checked to see if they could help ! We approached front desk and eventually spoke with Parker around 12.00 pm . He apologised and offer \$200 dollar credit lol , We have stayed at the Don for the last 25years and this was a return visit with my son his girlfriend and our granddaughter. The total cost of the stay was around \$3500 for two nights for our suite and an additional room for our son . It's always been on the expensive side but always worth the money as the Don was always a special place but it's not just this incident that made the stay disappointing it's not like the old Don ! The Don has lost its charm the stuff are not the friendliest Floridans they once where .

Using the given reviews data as a json object, create a single page react app that lists the reviews (design can be referenced from the images attached), and highlight the sentences in the reviews text with appropriate colours relating to it's sentiment using the analytics data present in each review object. On hovering over the highlighted sentence, a tooltip should appear displaying the topic of that sentiment/sentence (refer to the screenshots attached).

1. The review text is represented by the "content" property in each review object.
2. The analytics property in each review is an array of objects, each object contains four properties that you should use namely Topic, Sentiment, Sentences and Highlight Indices.
3. The "Topic" property should be displayed in the tooltip.
4. The "Sentiment" property (can be positive, negative, mixed or neutral) is depicted by the highlight color (we have provided the colors to use for each sentiment).
5. The "Sentences" property is an array of sentences present in the review text. All sentences talk about that "Topic". Each sentence should be highlighted in the paragraph with the color assigned to that "Sentiment".
6. Optionally, use the "Highlight Indices" (an array of object) property to highlight the sentences present in each range. Each object in the array contains three values, start index, end index and sentiment (it's the same in each object and is equal to the global "Sentiment" property) respectively. The start and end indices are the starting and ending position of a sentence in the review text