

AI Caption Generator App Documentation

Overview

The AI Caption Generator App allows users to generate captions for various social media platforms using AI. The app uses a combination of pre-built components to handle image uploads, description input, and AI-based caption generation for platforms like Instagram, Twitter, LinkedIn, TikTok, and more. The generated captions can be rated, saved, and copied to the clipboard.

This documentation guides you through setting up the application locally, explains the app's functionality, and provides details about the various features.

Prerequisites

Before you begin, make sure you have the following tools installed on your computer:

- **Node.js** (version 16.x or later)
- **npm** (comes with Node.js)

To check if you have Node.js and npm installed, run the following commands in your terminal:

```
bash
```

```
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```

```
node -v
```

```
npm -v
```

If not installed, visit the official Node.js website to download and install it.

Setting Up the Project

Follow these steps to set up the project on your local machine:

1. Clone the Repository

Start by cloning the repository from GitHub (or the source of the app if you have access). Open your terminal and run:

```
bash
```

```
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```
git clone https://github.com/your-username/ai-caption-generator.git
```

```
cd ai-caption-generator
```

Replace your-username with the actual GitHub username or repository URL.

2. Install Node Modules

Once inside the project directory, install the necessary dependencies by running:

```
bash
```

```
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```
npm install
```

This will download and install all the required node modules listed in the package.json file, including React, TypeScript, TailwindCSS, and any other dependencies.

3. Run the Development Server

After installing the dependencies, you can run the app in development mode. To do so, execute the following command:

```
bash
```

```
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```
npm start
```

This will start the React development server, and you should be able to access the app at <http://localhost:3000>.

Project Structure

Here is a quick breakdown of the main files in the project:

- **src/**
 - **App.tsx**: The main component of the app that handles all UI and functionality.
 - **index.tsx**: Entry point for the app where React renders the root component (App.tsx) to the DOM.
 - **tailwind.config.js**: TailwindCSS configuration file to customize the design.
 - **postcss.config.js**: Configuration for PostCSS, used to process TailwindCSS.
- **public/**

- **index.html**: The main HTML template for the React app.
- **package.json**: Lists all the dependencies, scripts, and configurations for the project.

Features

1. Image Upload

- Users can upload an image by dragging and dropping or by clicking the upload area. The image is displayed at the top of the form.
- The image is optional and helps the AI generate more contextual captions.
- Supported file types: JPG, PNG, and GIF.

2. Platform Selection

- Users can select a platform from the available options: Instagram, Twitter, LinkedIn, TikTok, or Facebook.
- Each platform has its own character limit and associated icon.

3. Tone Selection

- Users can choose a tone for the caption: Professional, Funny, Motivational, Romantic, or Casual.
- The selected tone influences the caption style and language.

4. Mood Selection

- Users can select a mood (Excited, Grateful, Adventurous, Peaceful, Confident, or Nostalgic).
- This mood selection is used to enhance the AI-generated caption.

5. Advanced Options

- **Hashtags**: Enable or disable the addition of platform-specific hashtags in the caption.
- **Emojis**: Choose whether emojis should be included in the caption.
- **Call-to-Action (CTA)**: Enable or disable a call-to-action in the caption to engage the audience.

6. AI Caption Generation

- After filling in the required fields, users click the "Generate AI Captions" button.
- The app uses predefined AI prompts to generate captions for the selected platform, tone, and mood.
- The generated captions appear below the form, and users can copy them, rate them, or save them for future use.

7. Caption Ratings

- Users can rate each generated caption with a 1-5 star rating to help improve future captions.

8. Saving Captions

- Captions can be saved by clicking the star icon.
- Saved captions are highlighted for easy access later.

9. Copy to Clipboard

- Users can copy captions to their clipboard by clicking the copy icon next to each caption.
- A confirmation message will appear when the caption is successfully copied.

10. Download or Share Captions

- After generating captions, users can download or share them directly via provided buttons.

Styling & UI

The app uses **TailwindCSS** for styling, providing a clean and responsive layout. Some notable design aspects:

- **Dark Mode:** The entire app is styled with a dark theme, which can be customized further by modifying the TailwindCSS configurations.
- **Gradient Backgrounds:** Buttons and sections feature gradient backgrounds that match the platform and tone selections.
- **Interactive Elements:** Hover effects, tooltips, and button animations add interactivity to the UI.

Scripts & Commands

1. npm start

Starts the development server at <http://localhost:3000>. Changes are automatically reflected in the browser.

2. npm run build

Creates a production-ready build of the app. The build will be stored in the build/ directory and can be deployed to hosting platforms.

3. npm run lint

Runs the linter to ensure that the code follows best practices and style guidelines.

4. npm run test

Runs the test suite for the app (if tests are added).

Dependencies

Here are the core dependencies for the project:

- **React:** A JavaScript library for building user interfaces.
- **TypeScript:** A superset of JavaScript that adds static typing.
- **TailwindCSS:** A utility-first CSS framework used to style the app.
- **Lucide:** A library of SVG icons, used for buttons and interactions.
- **React Icons:** For displaying icons in the UI.
- **PostCSS:** A tool for transforming CSS with plugins like TailwindCSS.

How to Deploy

To deploy the app to a hosting platform (e.g., Vercel, Netlify), you can follow these steps:

1. Push the App to GitHub

If you haven't already pushed the app to GitHub, do so by creating a new repository and pushing the code.

2. Connect to Vercel/Netlify

- Create an account on Vercel or Netlify.
- Connect your GitHub repository to Vercel/Netlify.
- Set up continuous deployment so that your app gets deployed automatically every time you push to the GitHub repository.

3. Configure Domain

Set up a custom domain or use the default domain provided by the hosting platform.

Conclusion

With this AI Caption Generator, users can easily create engaging captions for various social media platforms. The app offers customization options for tone, mood, and advanced options like hashtags, emojis, and calls-to-action. By following the setup steps and instructions provided in this documentation, you should be able to get the app running locally and start generating captions right away.

For any issues or bugs, feel free to open an issue on the GitHub repository or reach out to the app's maintainers.