Email Tone Checker - Project Documentation

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Project Overview

Created an Email Tone Checker that helps people write better emails. We've all sent emails that came across wrong, maybe too harsh when we meant to be direct, or too casual for a professional situation. This tool analyzes your email draft and suggests three improved versions with different tones.

The application uses AI to understand the current tone of your email and then provides practical alternatives you can actually use.

The Problem Statement

Email miscommunication happens all the time. We've seen colleagues accidentally offend clients with emails that sounded ruder than intended, or students struggle to write professional emails to professors. The tone of an email can make or break relationships, especially in international or multicultural environments.

The solution is simple: paste your email draft, get AI powered suggestions for improvement, edit if needed, and copy the final version. No complicated setup, no account creation, just immediate help with better communication.

Working

When you open the application, you see a clean interface where you can type or paste your email. After clicking "Analyze Tone," the system sends your text to Google's Gemini AI, which analyzes the tone and creates three different versions:

- Professional version : for formal business communication
- Friendly version : when you want to sound warmer and more approachable
- Concise version : for clear, direct messaging

You can click on any suggestion to edit it further, then copy the final result to use in your actual email.

Technical Implementation

What I Used

I built this as a web application using standard web technologies that work everywhere:

- HTML and CSS for the user interface
- JavaScript for interactivity and connecting to the AI
- Netlify Functions to safely connect to Google's AI without exposing API keys
- Google Gemini API for the actual AI analysis

Why These Choices

I chose this approach because it's accessible to everyone with a web browser, requires no installation, and can handle multiple users without needing a complex server setup. The serverless architecture means it's cost effective and scales automatically.

How to use it?

The workflow is straightforward:

1. Write or paste your email draft
2. Click "Analyze Tone" and wait a few seconds
3. Review three suggestions, each with a different approach
4. Click any suggestion to edit it in the text box
5. Copy the final version to use in your email client

Designed it to be intuitive enough that anyone can use it immediately without instructions.

AI Integration Details

I'm using Google's Gemini AI (specifically the gemini 1.5 flash model) because it's reliable and good at understanding nuances in communication. The system sends your email text along with specific instructions asking the AI to :

- Analyze what tone your current email conveys.
- Create three improved versions with different communication styles.
- Return the results in a structured format my application can display nicely.
- The AI doesn't just rewrite your email, it understands the intent and suggests versions that maintain your message while improving how it comes across to the recipient.

Technical Setup

Security and Performance

I made sure to handle the API key securely by storing it as an environment variable on Netlify, not in the code itself. The application includes proper error handling, so if something goes wrong (like the AI service being temporarily unavailable), users get helpful feedback instead of just a broken page.

The serverless setup means the application can handle many users simultaneously without performance issues, and it loads quickly thanks to Netlify's content delivery network.

Running the Application

The live version is available at: https://splendorous-lily-a2c0b1-final.netlify.app/
For local development, you would need:

1. A Google Cloud account with Gemini API access
2. The code from my GitHub repository
3. Setting up the API key as an environment variable

Real-World Impact

This tool addresses a genuine need that many people face daily. Email remains one of the primary forms of professional communication, yet most people receive no training on how to

write effective emails. This application provides immediate, practical help that can improve workplace communication and reduce misunderstandings.

The focus on different tone options (professional, friendly, concise) acknowledges that good communication isn't one size fits all. The right tone depends on your relationship with the recipient, the urgency of the message, and the cultural context.

Future Development Ideas

If I were to expand this project, I would consider:

- Multi-language support for international teams
- Industry specific templates (academic, healthcare, legal)
- Integration with email clients like Gmail or Outlook
- Learning from user preferences to provide more personalized suggestions

However, for this assignment, I focused on creating a solid, working application that demonstrates the core concept effectively rather than trying to build everything at once.

Conclusion

The Email Tone Checker successfully combines AI technology with practical user needs to create something genuinely useful. It demonstrates both technical competence in modern web development and an understanding of real-world communication challenges.

The application is fully functional, professionally deployed, and ready for anyone to use. It shows how AI can be applied thoughtfully to solve specific problems rather than just showcasing technology for its own sake.

This project represents my approach to building AI-powered applications: focus on solving real problems for real people, keep the technology invisible to users, and create experiences that are both powerful and simple to use.