

Sentiment Analysis Web Tool

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A **"Build a Sentiment Analysis Web Tool"** is a project where you create a web application that allows users to input text—like reviews, comments, or tweets—and get feedback on whether the **sentiment** behind the text is **positive**, **negative**, or **neutral**.

This program is good for people that struggle with empathy and have a hard time processing other people's emotions.

What is Sentiment Analysis?

Sentiment analysis is a form of Natural Language Processing (NLP) that detects emotion or opinion in text. It's used in:

- Product reviews (positive/negative feedback)
 - Social media monitoring
 - Customer support
 - Brand reputation analysis
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What Does the Web Tool Do?

1. User Interface (Frontend):

- Text input box for users to paste their text
- Button to submit the text for analysis
- Displays results: e.g., "Positive 😊", "Negative 😡", or "Neutral 😐"

2. Backend/Model:

- A trained **machine learning or deep learning model** processes the input and returns the sentiment

- Uses NLP libraries (like NLTK, TextBlob, spaCy, or Hugging Face Transformers)

3. Hosting/Deployment:

- Can be hosted on platforms like Heroku, AWS, or Vercel
- Frontend: React, HTML/CSS, or Flask Templates
- Backend: Python (Flask or Django), Node.js, etc.

Tools You Can Use

Component	Options
Language	Python
Model Libraries	TextBlob, Vader, Hugging Face
Web Framework	Flask or Django
Frontend	HTML, CSS, JavaScript, or React
Deployment	Heroku, AWS, Render, etc.

Example Flow:

1. User enters: *"I love this new phone, the battery life is amazing!"*
 2. Web app sends this to the backend.
 3. Model analyzes sentiment → "Positive"
 4. Result is displayed with a green smiley face.
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