

# SENTIMETER

BY ABRA CODEDABRA



# PROBLEM STATEMENT 2

Title: Sentiment Analysis and Topic Modeling  
for  
Amazon Customer Feedback





# PROBLEM STATEMENT:

The abundance of customer feedback on Amazon provides a valuable resource for understanding consumer sentiments and identifying key topics that influence their opinions. This hackathon challenge, set at a medium difficulty level, revolves around creating a tool or conducting an analysis using machine learning or natural language processing (NLP) techniques on Amazon customer reviews. The unique aspect of this challenge is that participants are not required to use any preexisting data; instead, they can leverage readily available APIs or web scraping techniques to gather the necessary information





## PROBLEM DESCRIPTION:

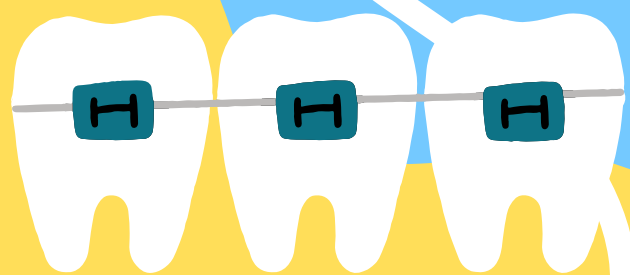
Develop a tool or analysis pipeline that utilizes machine learning or NLP to analyze customer feedback on Amazon products for Oral Care Category. The primary objectives are to perform sentiment analysis to understand overall customer satisfaction and topic modeling to identify prevalent themes within the reviews. The tool should provide valuable insights for both consumers and sellers.



# TECH STACK

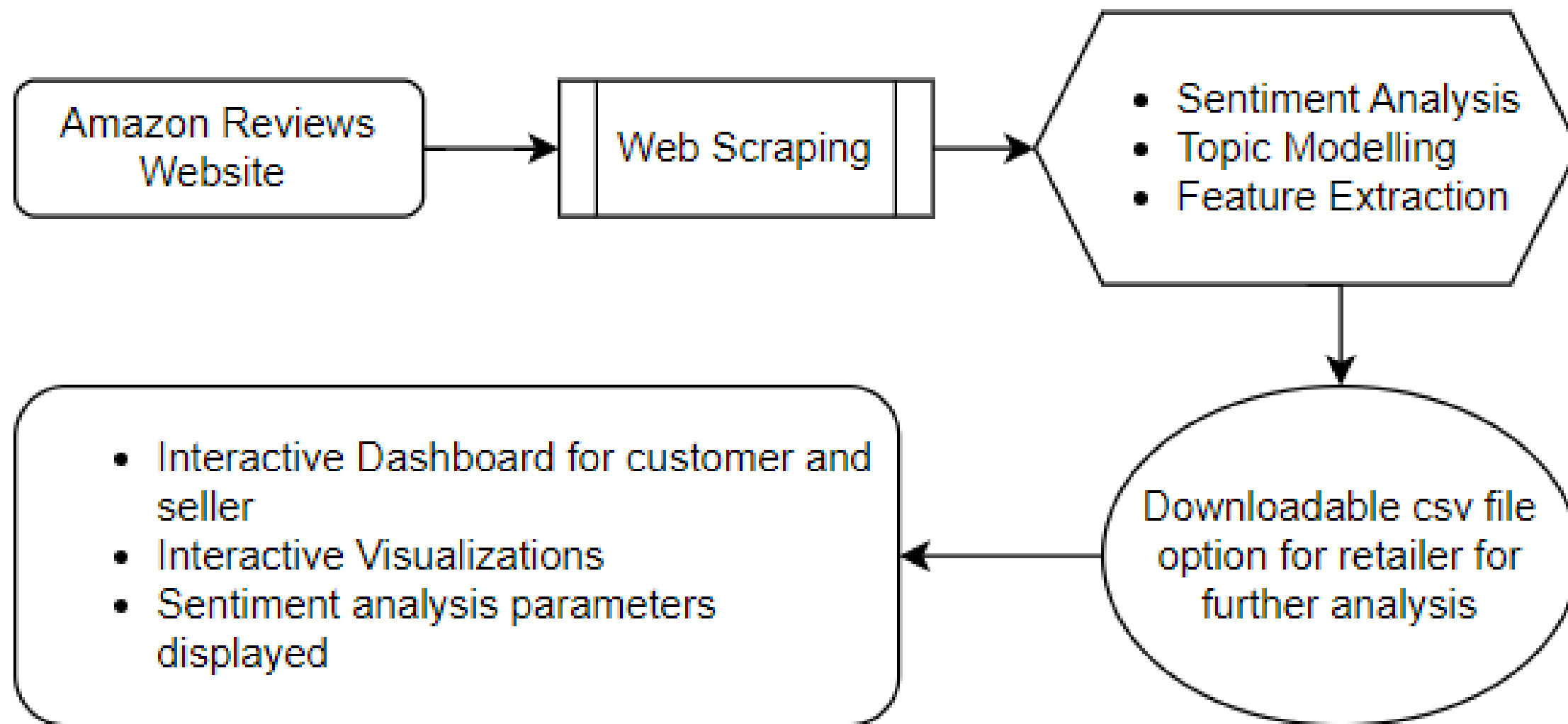
**LIBRARIES:** NLTK, SPACY, BEAUTIFUL SOUP, NUMPY, PANDAS, STREAMLIT, PYG WALKER

**FRAMEWORK:** LANGCHAIN.



# METHODOLOGY

04



# Ask Your csv

- Created a Chat.csv bot
- Allows users to upload a csv and ask it questions
- Sellers can interact with their reviews.csv file to get more in depth idea about their product review and ratings.
- Hence, seller gathers enhanced insights about product adoption

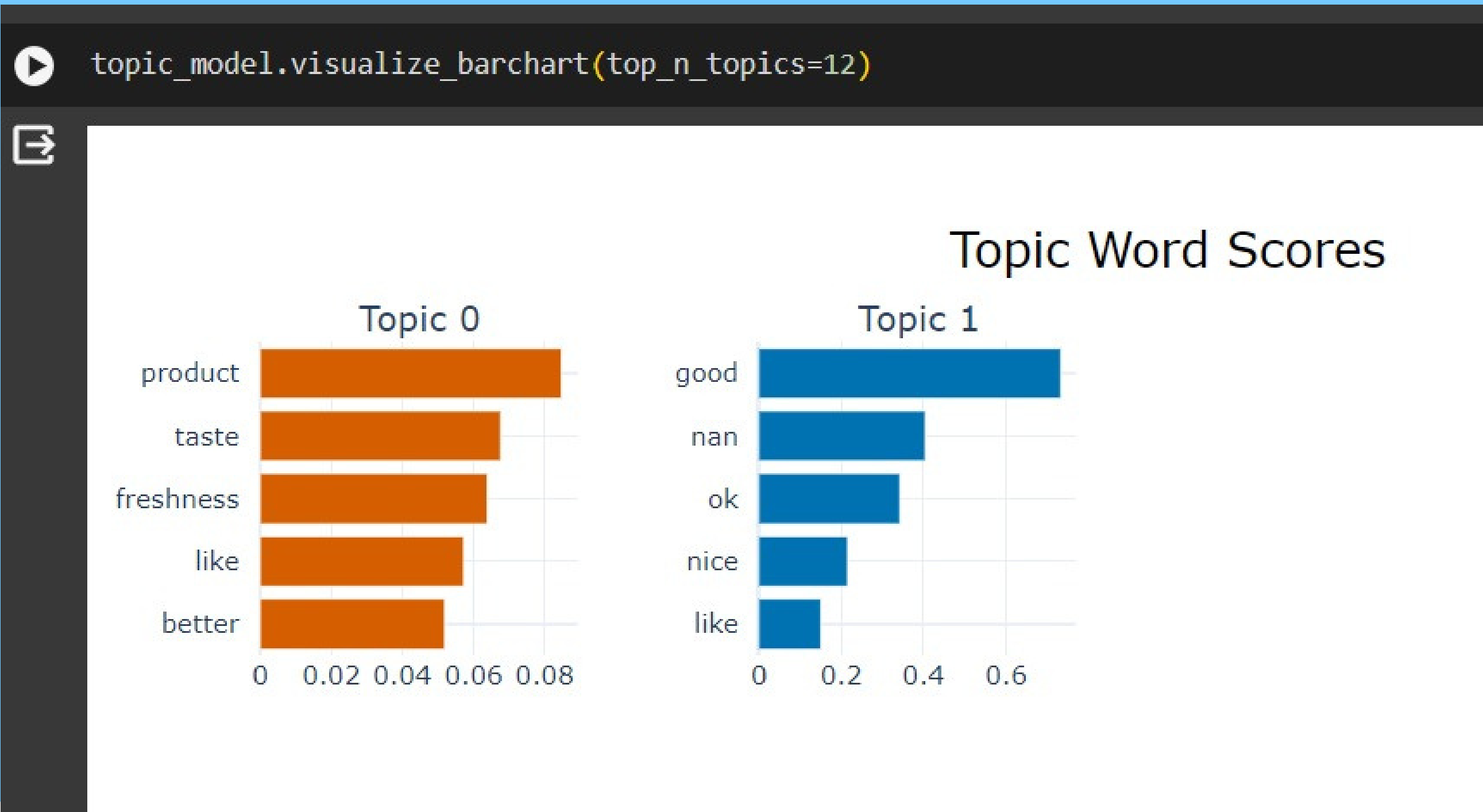
# Topic Modelling

```
[40] topic_model.get_topic(0)
```

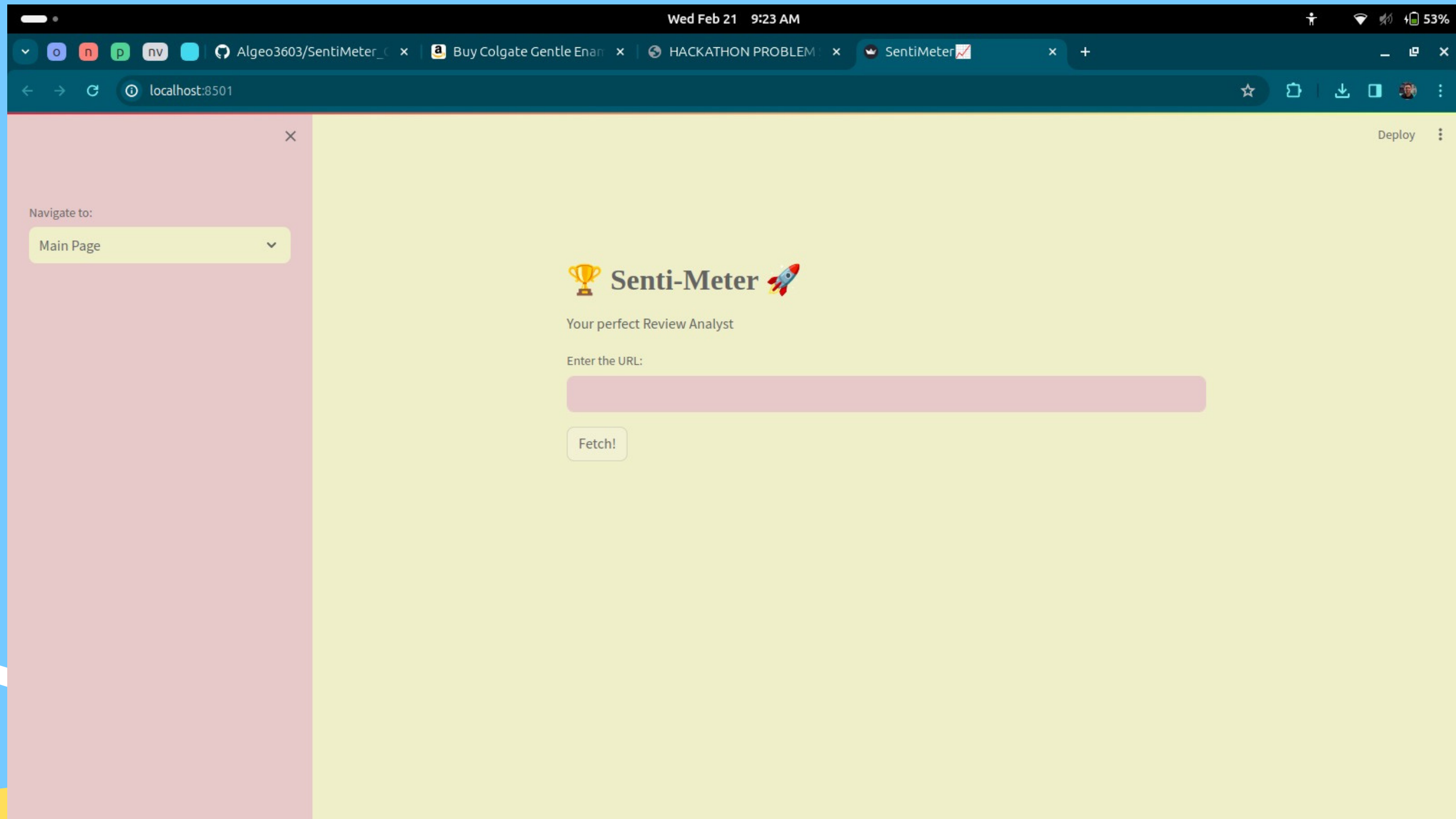
```
[('product', 0.08481475146672324),  
 ('taste', 0.06763858617630171),  
 ('freshness', 0.06389677426519619),  
 ('like', 0.057232649841486065),  
 ('better', 0.051884544356379014),  
 ('mouth', 0.04756950458381102),  
 ('listerine', 0.04756950458381102),  
 ('mouthwash', 0.04306577347321274),  
 ('bad', 0.041623316510834646),  
 ('flavour', 0.038344967960283645)]
```



# Topic Modelling visualization



# OUR UI/UX



⌵

(4) WhatsApp

python - Hugg

ADJ\_extraction

My Drive - Goc

New chat

Oral B Vitality

Senti-Meter

color picker -

+

localhost:8503

Gmail

YouTube

My Drive - Google...

Desmos | Graphin...

Awwwards - Webs...

Logobook - Disco...

93 Beautiful CSS...

200+ Stanford Uni...

>>

All Bookmarks

×

Navigate to:

Main Page

Deploy

⋮

★ Total Number of Reviews

😊 Average Positivity Rate

😐 Average Neutrality Rate

😞 Average Negativity Rate

Overall Reviews

130

Positivity Rate

0.392307692...

Neutrality Rate

0.107692307...

Negativity Rate

0.5

old negative

low positive

loose negative

worst neutral

rechargeable negative

pathetic neutral

(5) WhatsApp

python - Hugg

ADJ\_extraction

My Drive - Goc

New chat

Oral B Vitality

Senti-Meter

color picker -

localhost:8503

Gmail

YouTube

My Drive - Google...

Desmos | Graphin...

Awwwards - Webs...

Logobook - Disco...

93 Beautiful CSS...

200+ Stanford Uni...

>>

All Bookmarks

Navigate to:

Conversational Analysis

AI Insights

Ask your CSV

Upload your CSV file

Drag and drop file here

Limit 200MB per file • CSV

Browse files

Perfora\_mw\_2.csv

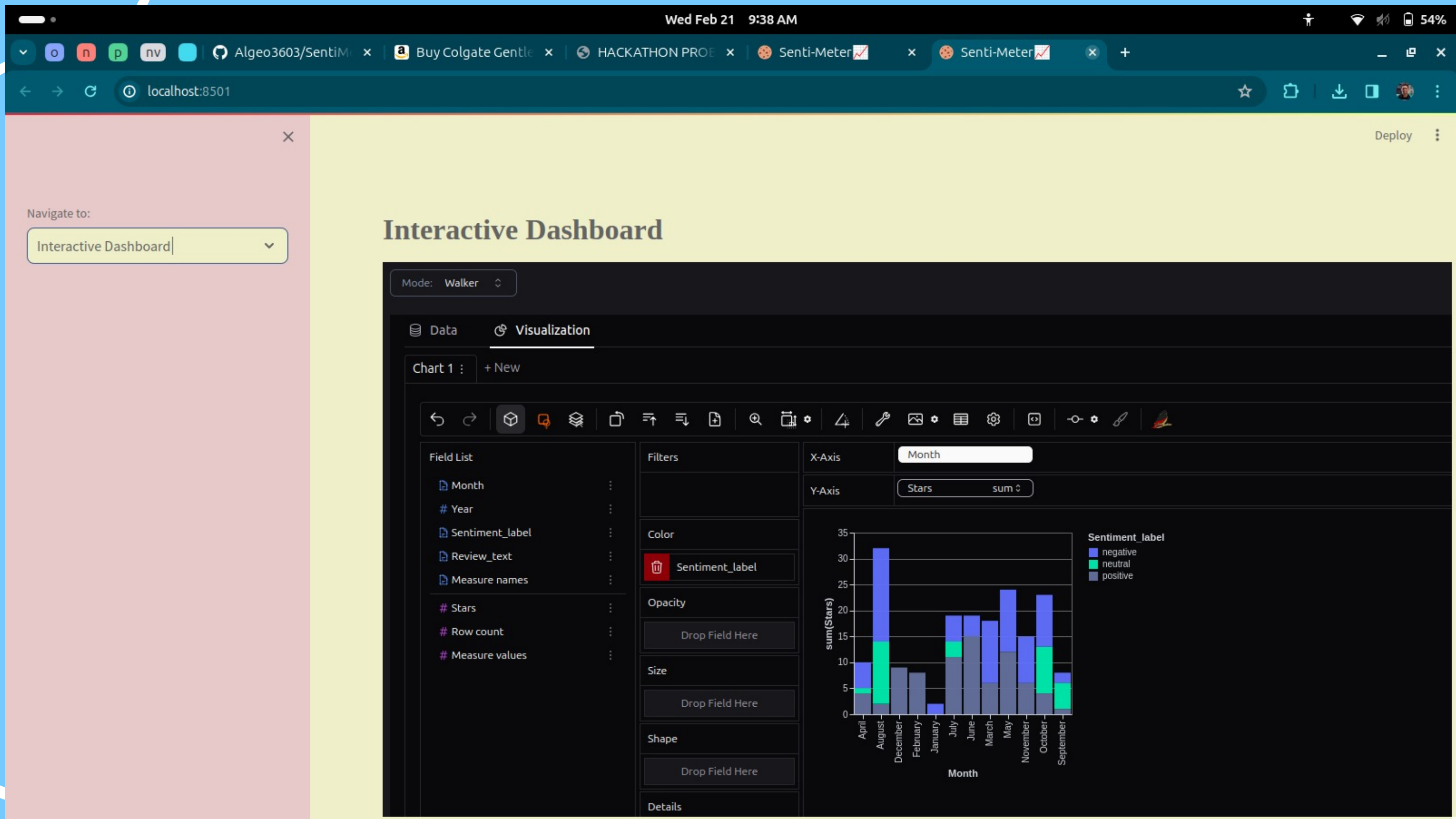
12.6KB

Ask your questions about your CSV.

how is the taste of the mouth wash?

The taste of the mouth wash can be found in the 'Review\_text' column of the dataframe, after cleaning the data and removing any rows with missing values.

Deploy





**THANK  
YOU**



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