



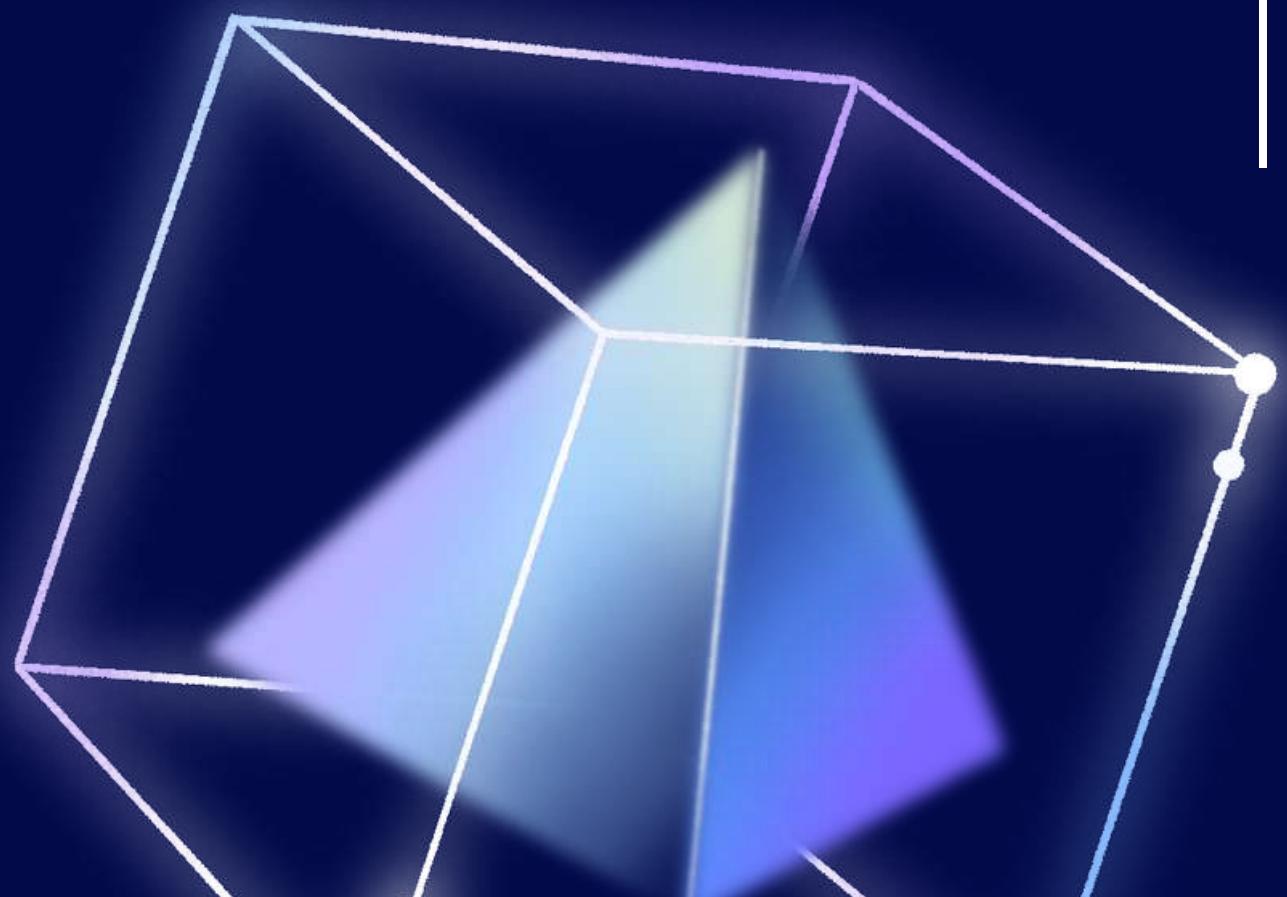
# AI APPLICATION IN DESIGN PROJECT 2

By Group 8



# TABLE OF CONTENTS

• Our Goals	03
• Design Process	16
• Our Program	24
• Other methods	60
• Benchmarking	86
• Limitations	100
• Future Improvements	110



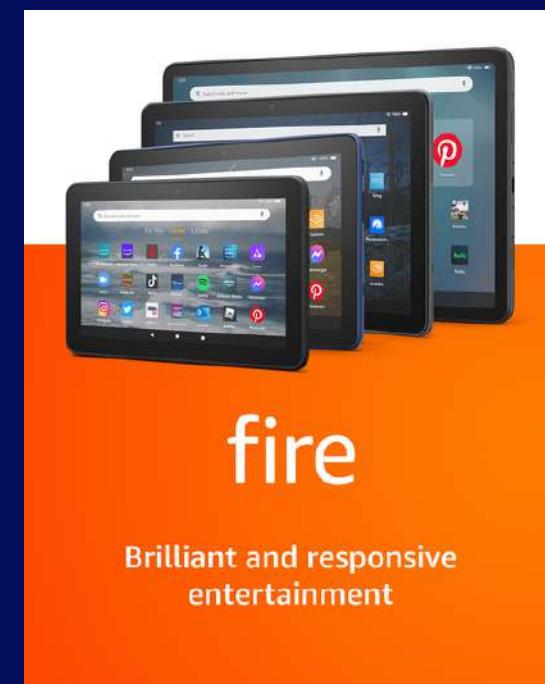
# OUR GOALS



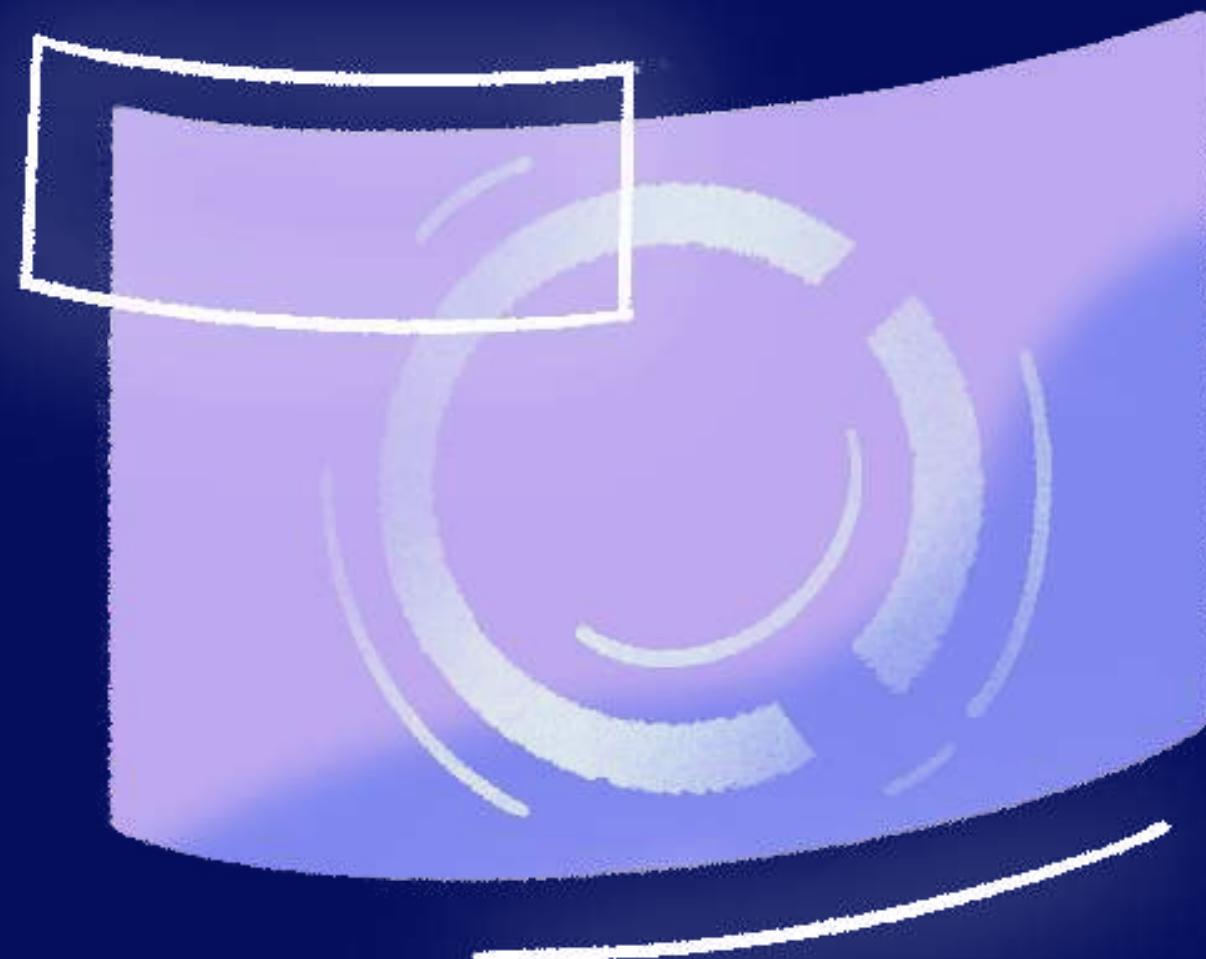
# PRODUCT OF CHOICE

Samsung Tablet S9 Fe

---



# PROJECT GOALS



## Input

- Tablet Model
- Number of Competitors
- Number of Results

## Output

- Pros and Cons of each tablet
- Recommendations for design improvements
- Visual Representation of Information

# PROJECT GOALS

Input

Edit search function here.

```
search_term="galaxy tab s9 fe"      #edit search here
OPENAI_API_KEY="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"    #enter openai API key here
key="AIzaSyBRMhRtczF978ZXb4b3uhzHvOhUtwiJdIo"      #enter youtube api key here
max_result = 10      #enter number of youtube videos here
pages_limit=10      #enter number of amazon review pages
number_of_competitors=5      #enter number of competitors to compare to
```

✓ 0.0s

# PROJECT GOALS

## Output

--Galaxy Tab S9 FE-- Based on the provided text, here are three pros and three cons of the Galaxy Tab S9 FE, along with an overall summary:

### Pros:

1. **Display Quality:** The Tab S9 FE is noted for having a stellar display, comparable to high-quality devices like the iPad Air 5th gen and the Tab S8.
2. **Optimization:** The 8GB and 256GB configuration is recommended for optimal performance with OneUI, suggesting good software and hardware integration.
3. **Accessories:** There are specific mentions of available accessories like the Book Cover Keyboard, which can enhance usability.

### Cons:

1. **Android Version Issues:** There is a mention of the device running Android 13 with no available update to Android 14, which could be a downside for users looking for the latest operating system.
2. **Price Concerns:** There is a question about whether the additional cost of the Tab S9 over the S9 FE Plus is justified, indicating concerns about value for money.
3. **Potential Longevity Issues:** A user questioned whether the 6GB variant might encounter problems in the long run, suggesting potential concerns about future-proofing and performance degradation.

**Overall Summary:** The Galaxy Tab S9 FE appears to be a solid device with a high-quality display and good performance, especially in the recommended 8GB/256GB configuration. It supports useful accessories that can enhance its functionality. However, there are concerns about the software updates and whether the price point is justified compared to other models. Additionally, there might be concerns about the long-term performance of lower-spec variants. Overall, the Tab S9 FE seems to be a capable tablet with specific strengths and a few potential drawbacks to consider.

**Note:** Some aspects like speaker quality and suitability for specific tasks like music production were mentioned but not detailed enough to conclusively list as pros or cons.

# PROJECT GOALS

## Output

--Galaxy Tab S9 FE-- Based on the provided text, here are three pros and three cons of the Galaxy Tab S9 FE, along with an overall summary:

### Pros:

- Display Quality:** The Tab S9 FE is noted for having a stellar display, comparable to high-quality devices like the iPad Air 5th gen and the Tab S8.
- Optimization:** The 8GB and 256GB configuration is recommended for optimal performance with OneUI, suggesting good software and hardware integration.
- Accessories:** There are specific mentions of available accessories like the Book Cover Keyboard, which can enhance usability.

### Cons:

- Android Version Issues:** There is a mention of the device running Android 13 with no available update to Android 14, which could be a downside for users looking for the latest operating system.
- Price Concerns:** There is a question about whether the additional cost of the Tab S9 over the S9 FE Plus is justified, indicating concerns about value for money.
- Potential Longevity Issues:** A user questioned whether the 6GB variant might encounter problems in the long run, suggesting potential concerns about future-proofing and performance degradation.

**Overall Summary:** The Galaxy Tab S9 FE appears to be a solid device with a high-quality display and good performance, especially in the recommended 8GB/256GB configuration. It supports useful accessories that can enhance its functionality. However, there are concerns about the software updates and whether the price point is justified compared to other models. Additionally, there might be concerns about the long-term performance of lower-spec variants. Overall, the Tab S9 FE seems to be a capable tablet with specific strengths and a few potential drawbacks to consider.

**Note:** Some aspects like speaker quality and suitability for specific tasks like music production were mentioned but not detailed enough to conclusively list as pros or cons.

# PROJECT GOALS

## Output

--Galaxy Tab S9 FE-- Based on the provided text, here are three pros and three cons of the Galaxy Tab S9 FE, along with an overall summary:

### Pros:

1. **Display Quality:** The Tab S9 FE is noted for having a stellar display, comparable to high-quality devices like the iPad Air 5th gen and the Tab S8.
2. **Optimization:** The 8GB and 256GB configuration is recommended for optimal performance with OneUI, suggesting good software and hardware integration.
3. **Accessories:** There are specific mentions of available accessories like the Book Cover Keyboard, which can enhance usability.

### Cons:

1. **Android Version Issues:** There is a mention of the device running Android 13 with no available update to Android 14, which could be a downside for users looking for the latest operating system.
2. **Price Concerns:** There is a question about whether the additional cost of the Tab S9 over the S9 FE Plus is justified, indicating concerns about value for money.
3. **Potential Longevity Issues:** A user questioned whether the 6GB variant might encounter problems in the long run, suggesting potential concerns about future-proofing and performance degradation.

**Overall Summary:** The Galaxy Tab S9 FE appears to be a solid device with a high-quality display and good performance, especially in the recommended 8GB/256GB configuration. It supports useful accessories that can enhance its functionality. However, there are concerns about the software updates and whether the price point is justified compared to other models. Additionally, there might be concerns about the long-term performance of lower-spec variants. Overall, the Tab S9 FE seems to be a capable tablet with specific strengths and a few potential drawbacks to consider.

**Note:** Some aspects like speaker quality and suitability for specific tasks like music production were mentioned but not detailed enough to conclusively list as pros or cons.

# PROJECT GOALS

## Output

--Galaxy Tab S9 FE-- Based on the provided text, here are three pros and three cons of the Galaxy Tab S9 FE, along with an overall summary:

### Pros:

1. **Display Quality:** The Tab S9 FE is noted for having a stellar display, comparable to high-quality devices like the iPad Air 5th gen and the Tab S8.
2. **Optimization:** The 8GB and 256GB configuration is recommended for optimal performance with OneUI, suggesting good software and hardware integration.
3. **Accessories:** There are specific mentions of available accessories like the Book Cover Keyboard, which can enhance usability.

### Cons:

1. **Android Version Issues:** There is a mention of the device running Android 13 with no available update to Android 14, which could be a downside for users looking for the latest operating system.
2. **Price Concerns:** There is a question about whether the additional cost of the Tab S9 over the S9 FE Plus is justified, indicating concerns about value for money.
3. **Potential Longevity Issues:** A user questioned whether the 6GB variant might encounter problems in the long run, suggesting potential concerns about future-proofing and performance degradation.

**Overall Summary:** The Galaxy Tab S9 FE appears to be a solid device with a high-quality display and good performance, especially in the recommended 8GB/256GB configuration. It supports useful accessories that can enhance its functionality. However, there are concerns about the software updates and whether the price point is justified compared to other models. Additionally, there might be concerns about the long-term performance of lower-spec variants. Overall, the Tab S9 FE seems to be a capable tablet with specific strengths and a few potential drawbacks to consider.

**Note:** Some aspects like speaker quality and suitability for specific tasks like music production were mentioned but not detailed enough to conclusively list as pros or cons.

# PROJECT GOALS

Output

## -----Inferred Business Direction of the Samsung Galaxy Tab S9 FE-----

The business direction of the company behind the Galaxy Tab S9 FE, as inferred from the reviews, seems to be focused on offering a more budget-friendly option within their premium tablet line. By introducing the Galaxy Tab S9 FE and FE+ as less extravagant alternatives to the high-end Galaxy Tab S9 Ultra, the company appears to be targeting consumers with more moderate budgets who may not require the top-tier features of the Ultra model but still desire a quality tablet experience. This strategy suggests an aim to broaden their market reach and appeal to a wider range of consumers by providing options at different price points.

# PROJECT GOALS

## Output

-----Recommended design improvement for the Galaxy Tab S9 FE-----

The general feedback about the Galaxy Tab S9 FE from the provided text suggests that it is a well-received device, particularly for its value as a budget-friendly option compared to the flagship models. Users appreciate its large size, which is ideal for watching movies, and its performance, which is described as smooth and quick, though not as fast as the flagship models. The tablet is also noted for its durability, being water and dust resistant, and offers practical features like a fingerprint sensor and 5G options. However, it lacks a Snapdragon chip, which some users might miss for enhanced performance.

Recommended design changes to align with the business direction of offering budget-friendly yet quality tablets could include:

1. **Enhanced Chipset:** While maintaining cost-effectiveness, slightly improving the chipset within budget constraints could enhance the appeal. This doesn't necessarily mean using a Snapdragon chip, but perhaps a more powerful mid-range processor could be a good compromise.
2. **Expand Color Options:** As noted, the Tab S9 FE offers more color options than the Tab S9, which is a liked feature. Continuing to expand the color range could further appeal to personal consumer preferences and help differentiate the FE models in the market.
3. **Optimization for Lower RAM Variants:** Since there is a mention of the 8GB variant being optimized for OneUI, ensuring that lower RAM variants like the 6GB also offer a smooth user experience could enhance customer satisfaction and broaden its appeal to budget-conscious buyers who opt for the lower RAM model.
4. **Battery Life Improvements:** Although not specifically mentioned in the feedback, for budget tablets, enhancing battery life can be a significant selling point for users who need reliable devices for long working hours or media consumption.
5. **Sustainable Materials:** To appeal to environmentally conscious consumers, incorporating recycled materials or offering a trade-in or recycling program could enhance the brand's image and appeal.

These changes could help Samsung further solidify its position in the budget-friendly segment while still offering devices that meet the needs and expectations of a broad range of consumers.

# PROJECT GOALS

## Output

-----Recommended design improvement for the Galaxy Tab S9 FE-----

The general feedback about the Galaxy Tab S9 FE from the provided text suggests that it is a well-received device, particularly for its value as a budget-friendly option compared to the flagship models. Users appreciate its large size, which is ideal for watching movies, and its performance, which is described as smooth and quick, though not as fast as the flagship models. The tablet is also noted for its durability, being water and dust resistant, and offers practical features like a fingerprint sensor and 5G options. However, it lacks a Snapdragon chip, which some users might miss for enhanced performance.

Recommended design changes to align with the business direction of offering budget-friendly yet quality tablets could include:

1. **Enhanced Chipset:** While maintaining cost-effectiveness, slightly improving the chipset within budget constraints could enhance the appeal. This doesn't necessarily mean using a Snapdragon chip, but perhaps a more powerful mid-range processor could be a good compromise.
2. **Expand Color Options:** As noted, the Tab S9 FE offers more color options than the Tab S9, which is a liked feature. Continuing to expand the color range could further appeal to personal consumer preferences and help differentiate the FE models in the market.
3. **Optimization for Lower RAM Variants:** Since there is a mention of the 8GB variant being optimized for OneUI, ensuring that lower RAM variants like the 6GB also offer a smooth user experience could enhance customer satisfaction and broaden its appeal to budget-conscious buyers who opt for the lower RAM model.
4. **Battery Life Improvements:** Although not specifically mentioned in the feedback, for budget tablets, enhancing battery life can be a significant selling point for users who need reliable devices for long working hours or media consumption.
5. **Sustainable Materials:** To appeal to environmentally conscious consumers, incorporating recycled materials or offering a trade-in or recycling program could enhance the brand's image and appeal.

These changes could help Samsung further solidify its position in the budget-friendly segment while still offering devices that meet the needs and expectations of a broad range of consumers.

# PROJECT GOALS

## Output

-----Recommended design improvement for the Galaxy Tab S9 FE-----

The general feedback about the Galaxy Tab S9 FE from the provided text suggests that it is a well-received device, particularly for its value as a budget-friendly option compared to the flagship models. Users appreciate its large size, which is ideal for watching movies, and its performance, which is described as smooth and quick, though not as fast as the flagship models. The tablet is also noted for its durability, being water and dust resistant, and offers practical features like a fingerprint sensor and 5G options. However, it lacks a Snapdragon chip, which some users might miss for enhanced performance.

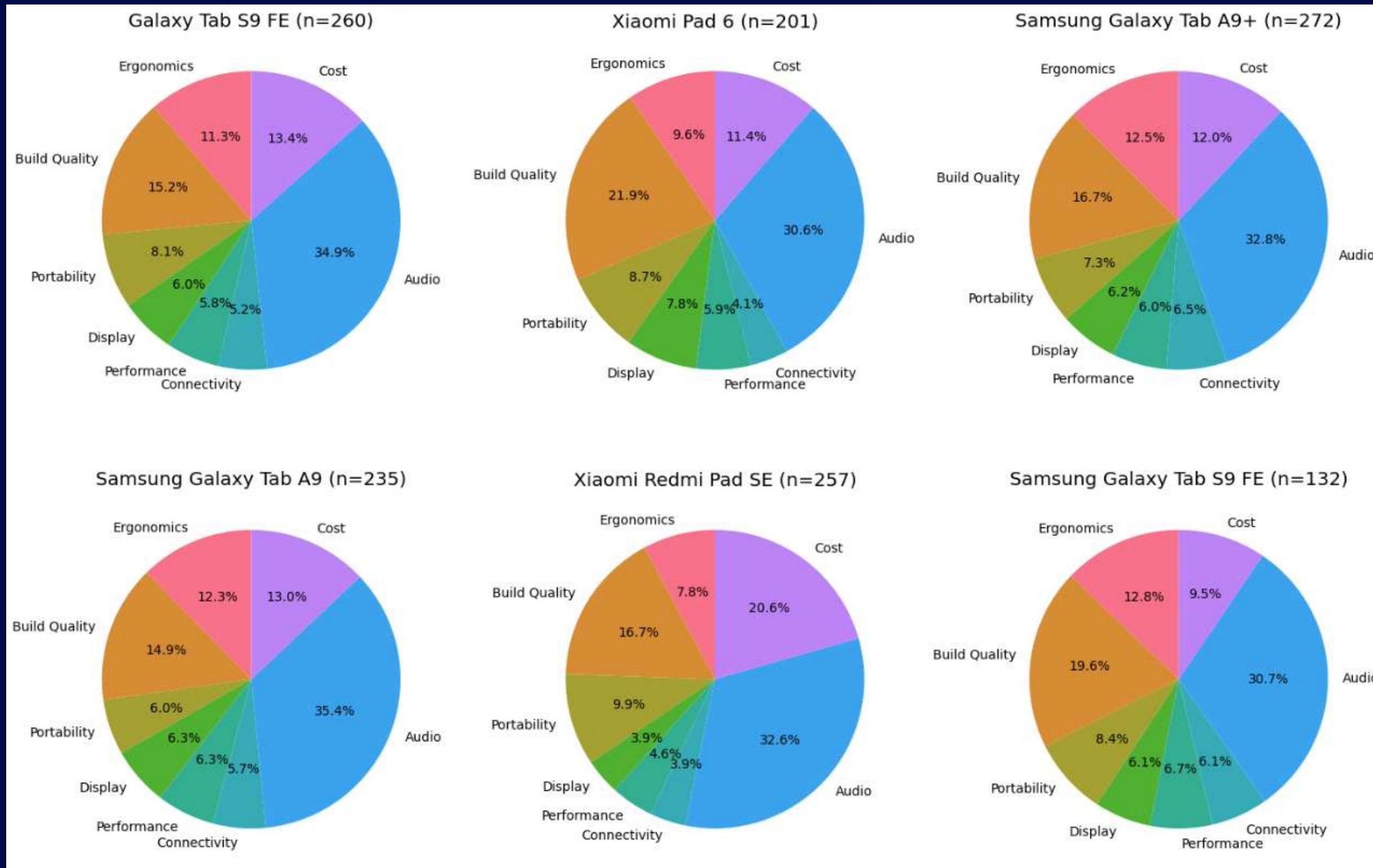
Recommended design changes to align with the business direction of offering budget-friendly yet quality tablets could include:

1. **Enhanced Chipset:** While maintaining cost-effectiveness, slightly improving the chipset within budget constraints could enhance the appeal. This doesn't necessarily mean using a Snapdragon chip, but perhaps a more powerful mid-range processor could be a good compromise.
2. **Expand Color Options:** As noted, the Tab S9 FE offers more color options than the Tab S9, which is a liked feature. Continuing to expand the color range could further appeal to personal consumer preferences and help differentiate the FE models in the market.
3. **Optimization for Lower RAM Variants:** Since there is a mention of the 8GB variant being optimized for OneUI, ensuring that lower RAM variants like the 6GB also offer a smooth user experience could enhance customer satisfaction and broaden its appeal to budget-conscious buyers who opt for the lower RAM model.
4. **Battery Life Improvements:** Although not specifically mentioned in the feedback, for budget tablets, enhancing battery life can be a significant selling point for users who need reliable devices for long working hours or media consumption.
5. **Sustainable Materials:** To appeal to environmentally conscious consumers, incorporating recycled materials or offering a trade-in or recycling program could enhance the brand's image and appeal.

These changes could help Samsung further solidify its position in the budget-friendly segment while still offering devices that meet the needs and expectations of a broad range of consumers.

# PROJECT GOALS

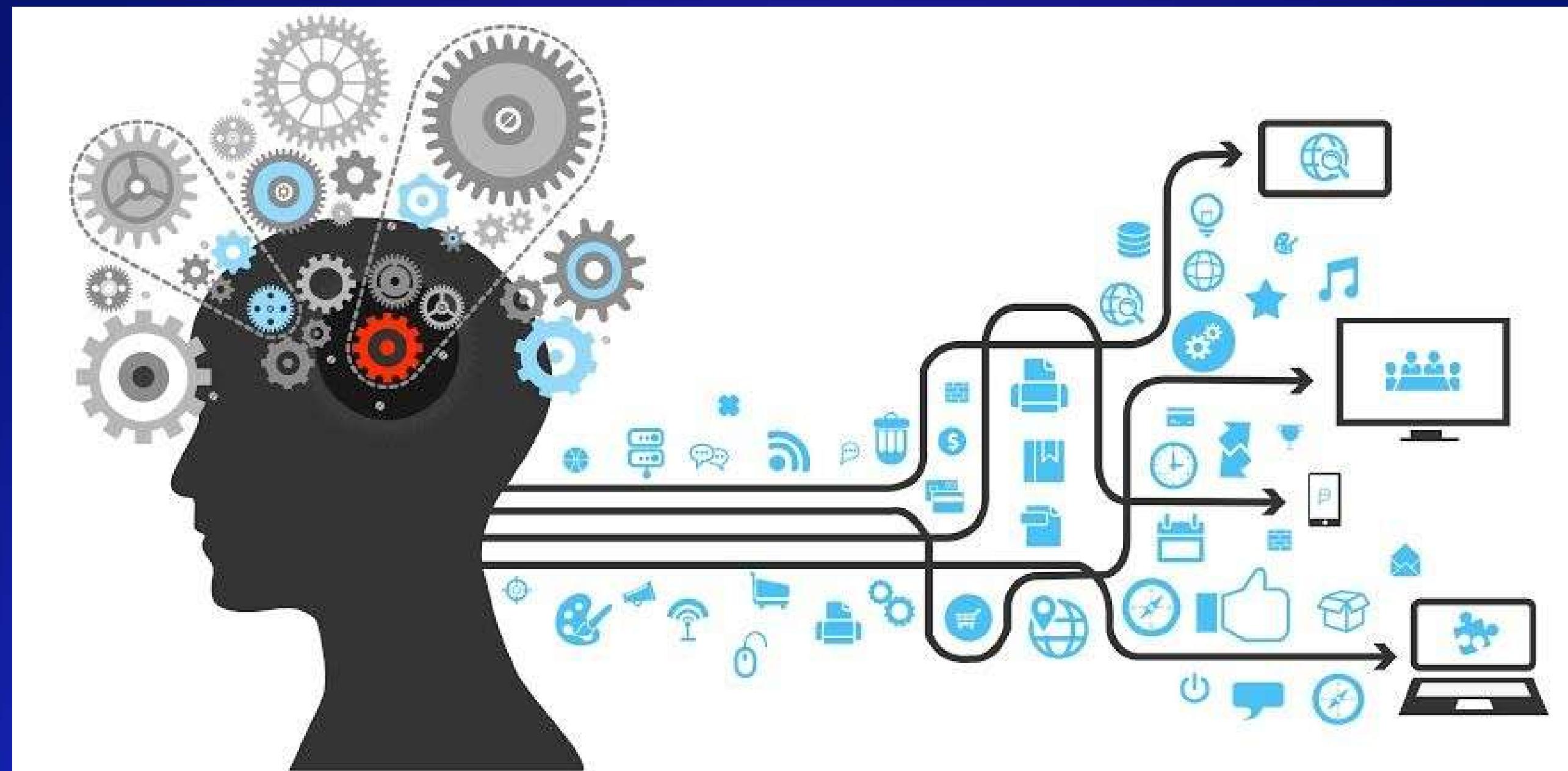
Output



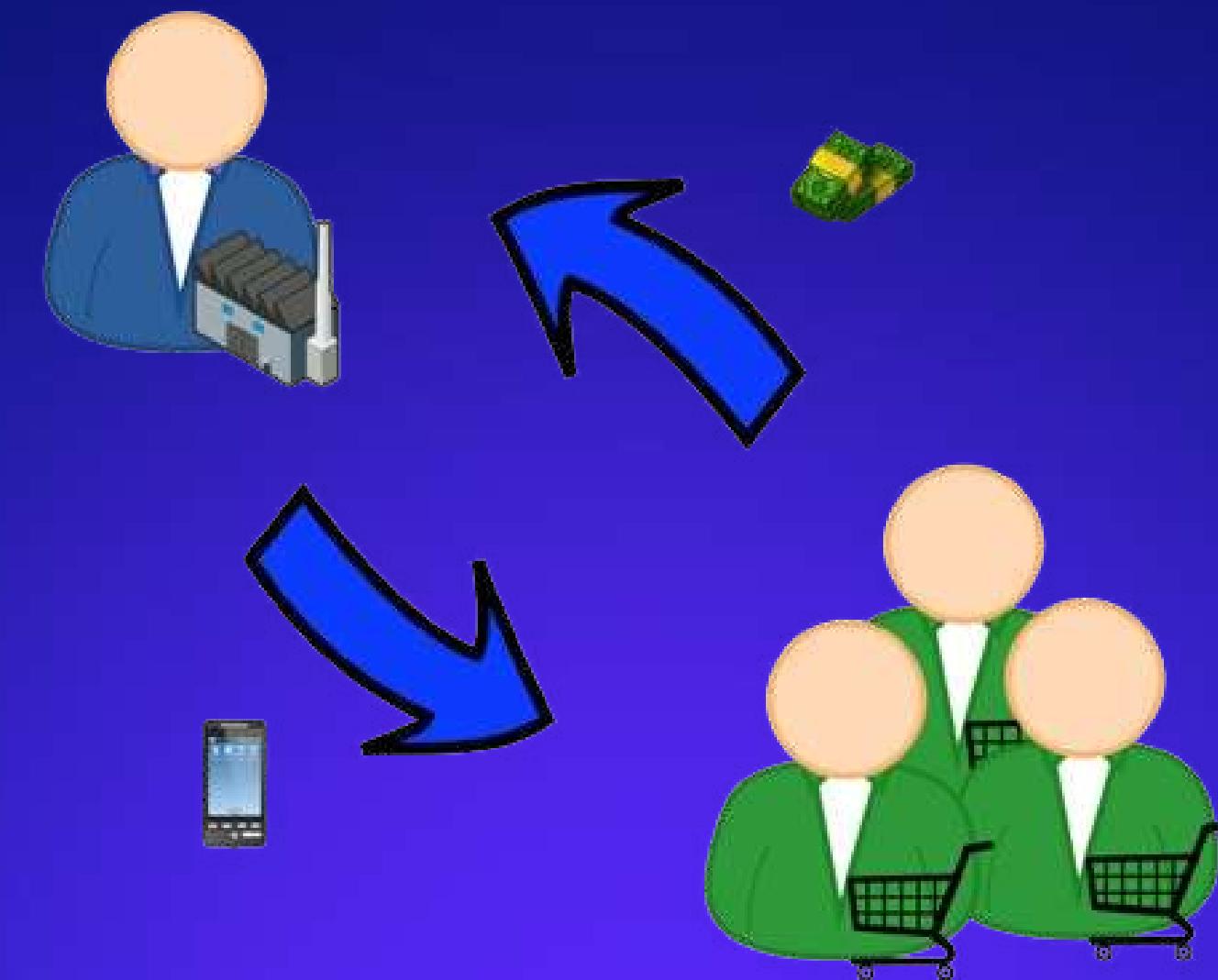
# DESIGN PROCESS



# AUTOMATION



# PERSPECTIVE



Producer - Consumer

# PERSPECTIVE

## END GOAL

### 60.002 Project 2

You are part of a consulting firm tasked to identify opportunities for design improvements.

Your team is assigned to use data-driven text analytics and/or image processing to identify design opportunities. The team is advised to focus on a specific product and conduct benchmarking with competitors whenever appropriate. Note that the focus is on the identification of design opportunities and requirements (not the generation of solutions).

A summary workplan is listed as follows:

- Conduct text analytics and/or image processing on a product
- Identify design opportunities
- Provide justifications for recommendations

# DATA REQUIRED



## CONSUMERS

Consumer opinion of the tablet

Source: Youtube Comments, Amazon Reviews

## TECH SAVVY CONSUMERS

Product reviewers with more in-depth knowledge on the tech industry

Source: Youtube Content Creators

## SPECIFICATIONS

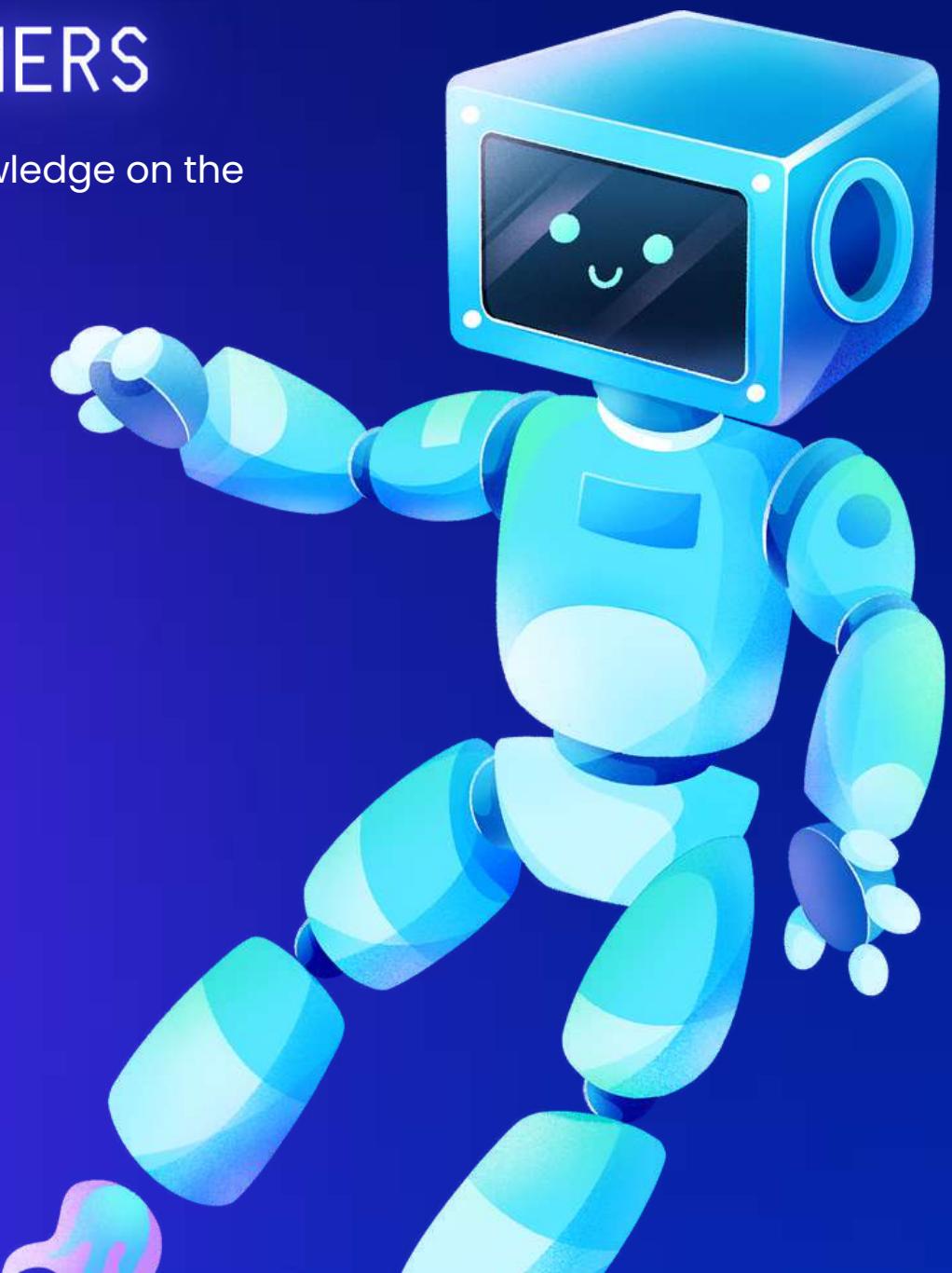
Tablet model and specifications

Source: GSMArena

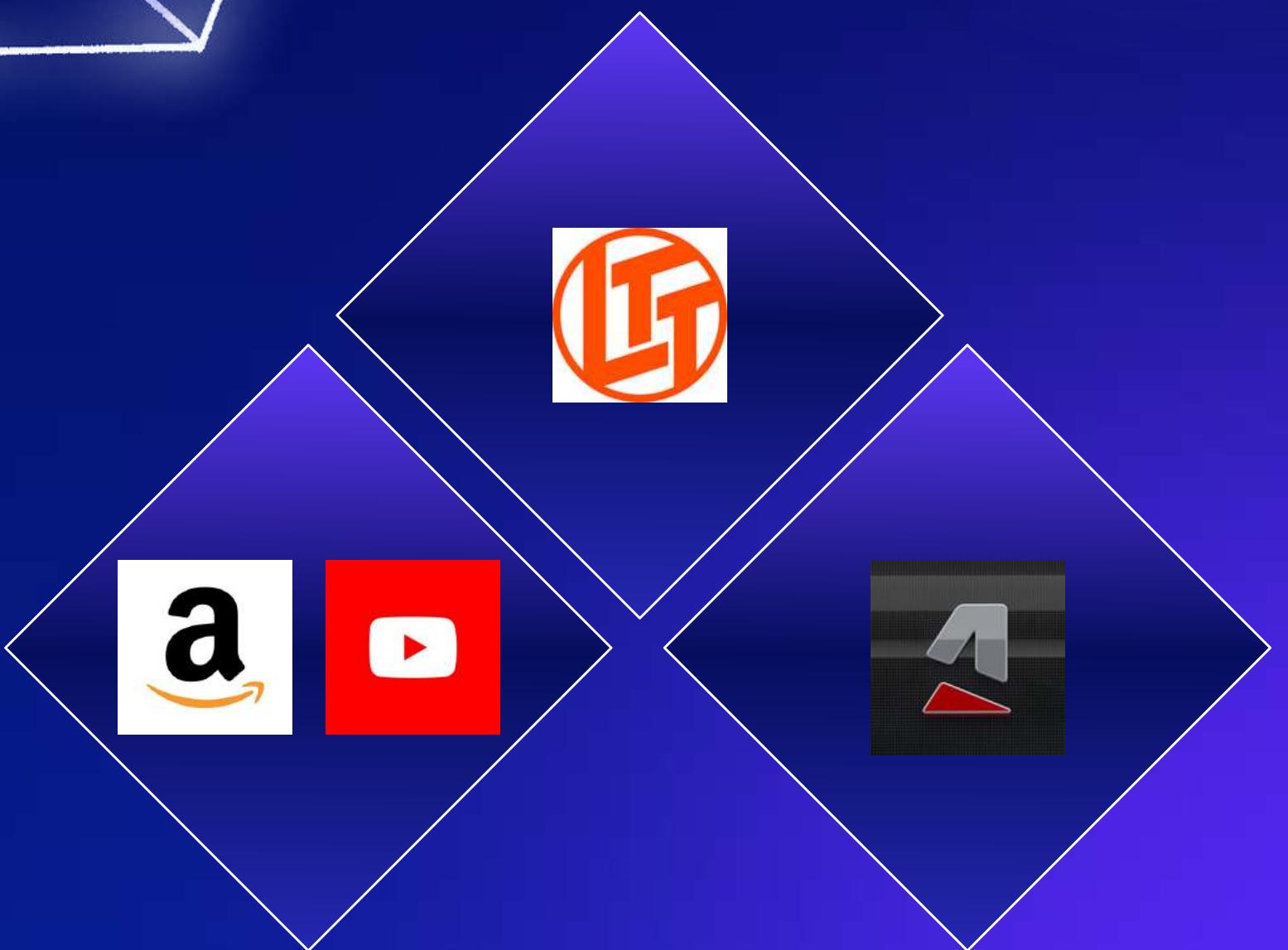
## BUSINESS

Decision making and business direction

Source: News, Patents, Technical Support



# DATA USED



## CONSUMERS

Consumer opinion of the tablet

Source: Youtube Comments, Amazon Reviews

## TECH SAVVY CONSUMERS

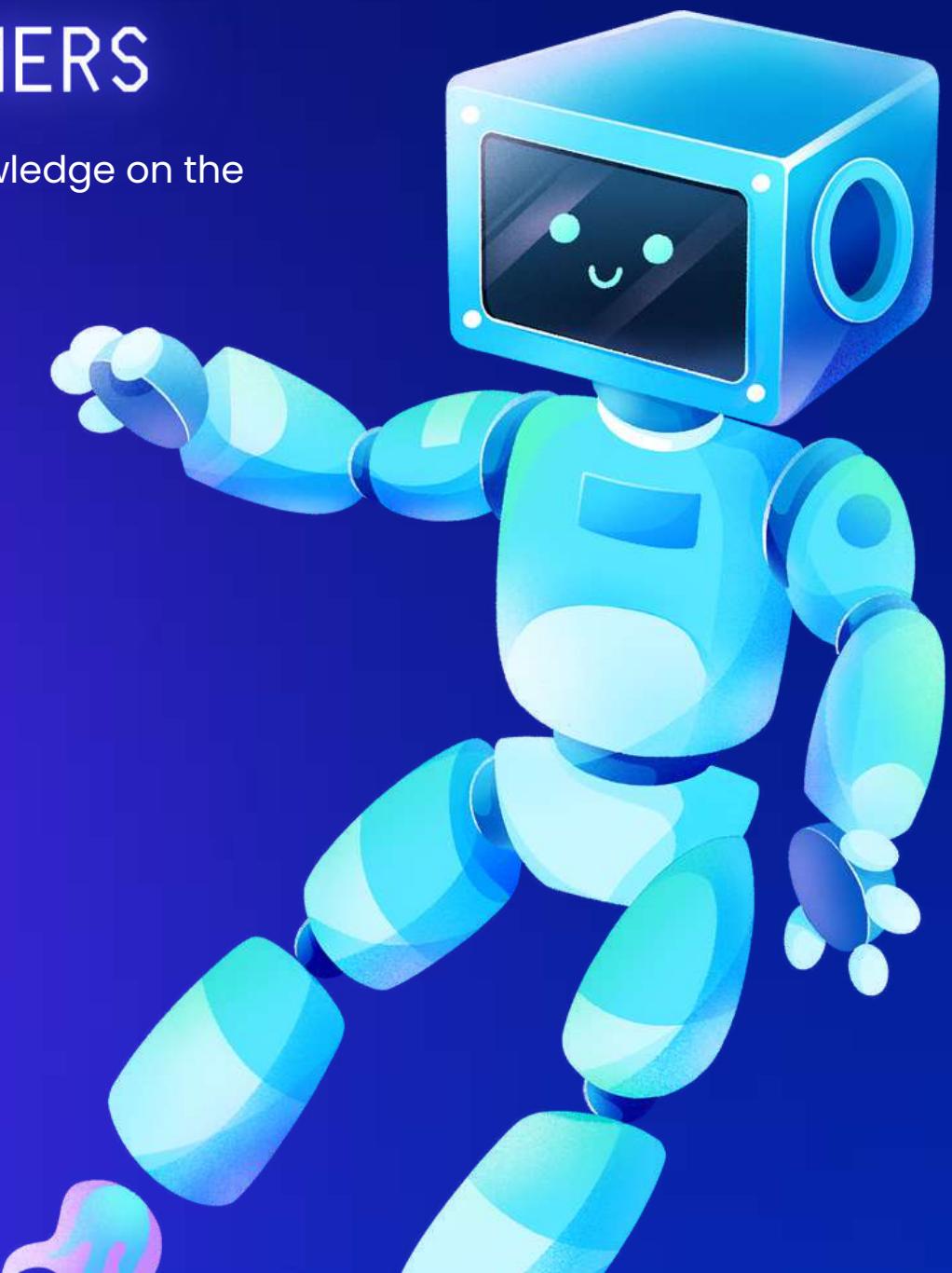
Product reviewers with more in-depth knowledge on the tech industry

Source: Youtube Content Creators

## SPECIFICATIONS

Tablet model and specifications

Source: GSMArena

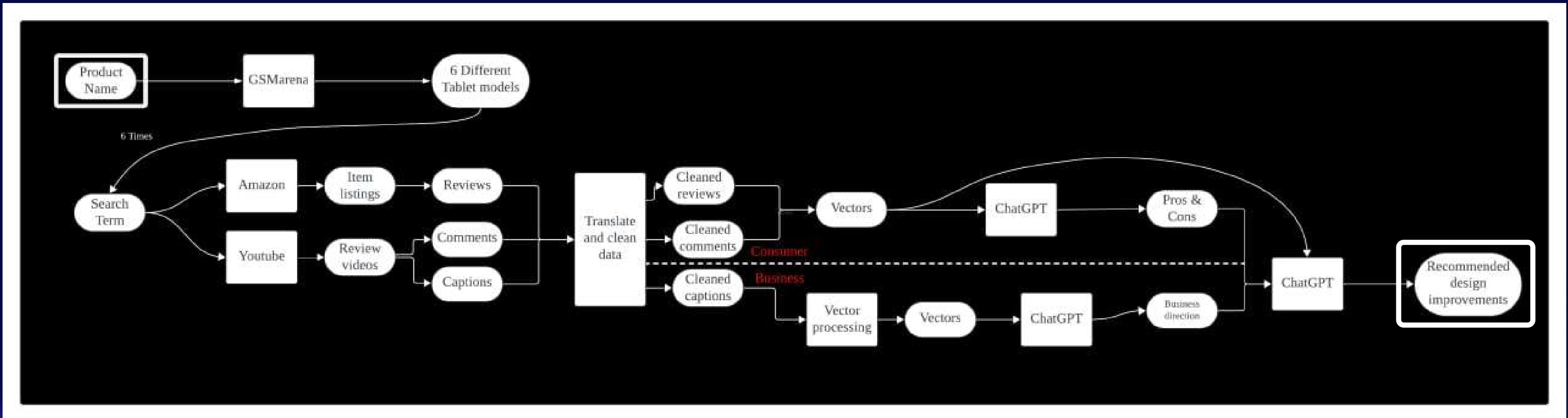




# OUR PROGRAM



# DATA ARCHITECTURE



# GETTING COMPETITORS

Variables

Original Search  
Term



The screenshot shows the GSMarena homepage with a search bar at the top containing 'galaxy tab s9 fe'. Below the search bar, there's a 'PHONE FINDER' section with a grid of brand names. To the right, a large image features a magnifying glass over a smartphone screen, with the text 'Search results for "galaxy tab s9 fe"' overlaid.

**TOP 10 BY DAILY INTEREST**

Device	Daily hits
1. Xiaomi Redmi Turbo 3	48,679
2. Samsung Galaxy A55	36,920
3. Apple iPhone 11	29,864
4. Infinix Note 40 Pro	28,336
5. Xiaomi Redmi Note 13 Pro	28,014
6. Samsung Galaxy S24 Ultra	23,684
7. Xiaomi Redmi Note 13	23,270
8. Motorola Edge 50 Pro	23,254
9. Samsung Galaxy A15	19,311
10. Apple iPhone 13	19,134

**Specs**

Samsung  
Galaxy Tab S9  
FE

Samsung  
Galaxy Tab S9  
FE+

**Reviews**

We found no results in Reviews.

# GETTING COMPETITORS

Variables

Original Search  
Term



**GSMarena** Search |

**Samsung Galaxy Tab S9 FE**

Released 2023, October 16 | **~7.6%** 914,959 HITS | **90** BECOME A FAN

**10.9"** 1440x2304 pixels | **8MP** 2160p | **6/8GB RAM** Exynos 1380 | **8000mAh** 45W

[OPINIONS](#) [COMPARE](#) [PICTURES](#) [PRICES](#)

Versions: Galaxy Tab S9 FE Wi-Fi SM-X510; Galaxy Tab S9 FE 5G SM-X516B

**PRICES**

Samsung Galaxy Tab S9 FE	amazon.ca	C\$ 479.98
128GB 6GB RAM		
256GB 8GB RAM	amazon.ca	C\$ 579.98

[SHOW ALL PRICES](#)

**NETWORK** Technology: GSM / HSPA / LTE / 5G

LAUNCH	Announced: 2023, October 04	Status: Available, Released: 2023, October 16
BODY	Dimensions: 254.3 x 165.8 x 6.5 mm (10.01 x 6.53 x 0.26 in)	Weight: 523g or 524g (1.15 lb)
Build: Glass front, aluminum back, aluminum frame		
SIM: Nano-SIM, eSIM		
Stylus: Stylus		
IP68 dust/water resistant (up to 1.5m for 30 min)		

**DISPLAY** Type: IPS LCD, 90Hz

Size	10.9 inches, 344.5 cm <sup>2</sup> (~81.7% screen-to-body ratio)
Resolution	1440 x 2304 pixels, 16:10 ratio (~249 ppi density)

**PLATFORM** OS: Android 13, upgradable to Android 14, One UI 6

Chipset	Exynos 1380 (5 nm)
CPU	Octa-core (4x2.4 GHz Cortex-A78 & 4x2.0 GHz Cortex-A55)
GPU	Mali-G68 MP5

# GETTING COMPETITORS

Variables

Original Search  
Term



The screenshot shows the GSMarena website's search interface for tablets. The top navigation bar includes links for 'Search', 'HOME', 'ABOUT', 'CONTACT', 'SITEMAP', and social media icons. A large banner features a magnifying glass over a tablet screen with the text 'Tablet finder' and 'SHOW 11 results'. Below the banner, there are two tabs: 'PHONES' (selected) and 'TABLETS'. The search form is divided into several sections:

- General:** Includes dropdown menus for 'BRAND' (Amazon, Apple, Huawei, Lenovo, Samsung, Xiaomi), 'YEAR' (2023), 'AVAILABILITY' (Available), and 'PRICE' (Min, Max).
- Network:** Includes dropdown menus for '2G', '3G', '4G', and '5G'.
- SIM:** Includes dropdown menus for 'SIZE' and 'MULTIPLE'.
- Body:** Includes sliders for 'HEIGHT' (245mm to 265mm) and 'WIDTH' (Min to Max).

# GETTING COMPETITORS

Variables

Name of 6 Tablet Models



The screenshot shows the GSMarena website interface. At the top, there's a navigation bar with links for 'PHONE FINDER', 'Search', and various social media icons. Below the navigation is a 'PHONE FINDER' grid with brand names like SAMSUNG, XIAOMI, ASUS, INFINIX, etc. To the right, a large image of a magnifying glass over a tablet is displayed with the text 'Tablet finder results'. Below this, a message says 'Your search returned 11 results.' and 'To refine your search [click here](#)'. A grid of 10 tablet images is shown, each with its name below it:

Xiaomi Pad 6	Samsung Galaxy Tab A9+	Xiaomi Redmi Pad SE	Samsung Galaxy Tab S9 FE	Samsung Galaxy Tab S9
Xiaomi Pad 6 Pro	Huawei MatePad 11.5	Huawei MatePad 11 (2023)	Huawei MatePad Pro 11 (2024)	Huawei MatePad Air

# GETTING COMPETITORS (METHODS EXPLORED)



## ADVANTAGES

- Fast
- Lightweight
- Easy to use

## DISADVANTAGES

- Easily detected by anti-scraping measures

# GETTING COMPETITORS (METHODS EXPLORED)



## ADVANTAGES

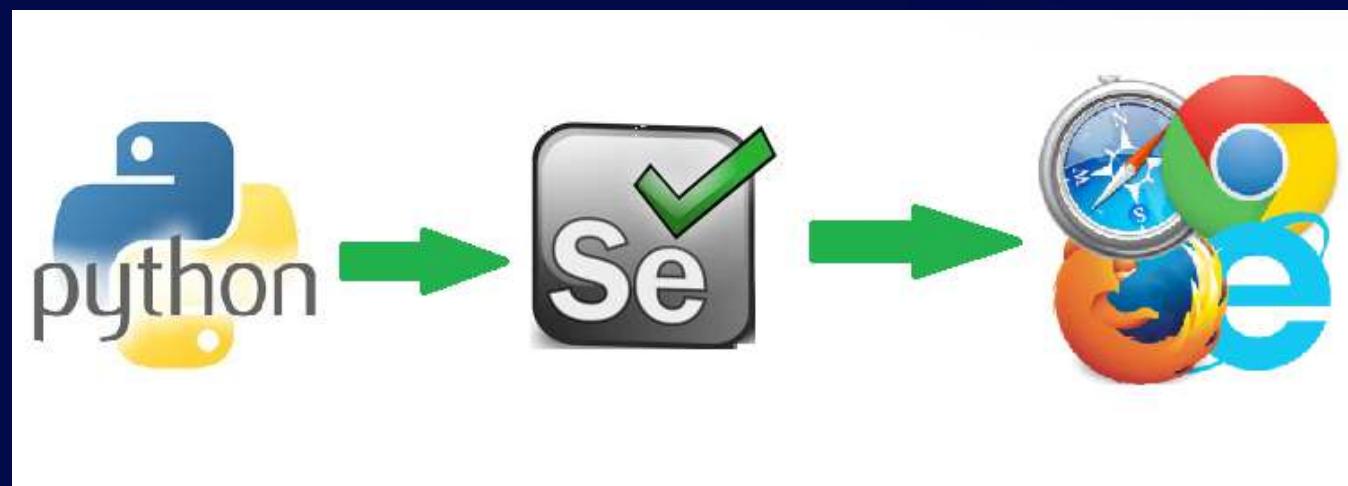
- Fast
- Lightweight
- Easy to use

## DISADVANTAGES

- Easily detected by anti-scraping measures



# GETTING COMPETITORS (METHODS EXPLORED)



## ADVANTAGES

- JavaScript Execution
- Dynamic Content Handling
- Browser Interaction

## DISADVANTAGES

- Requires a browser to be opened

# GETTING REVIEWS

Variables

Name of 6 Tablet Models

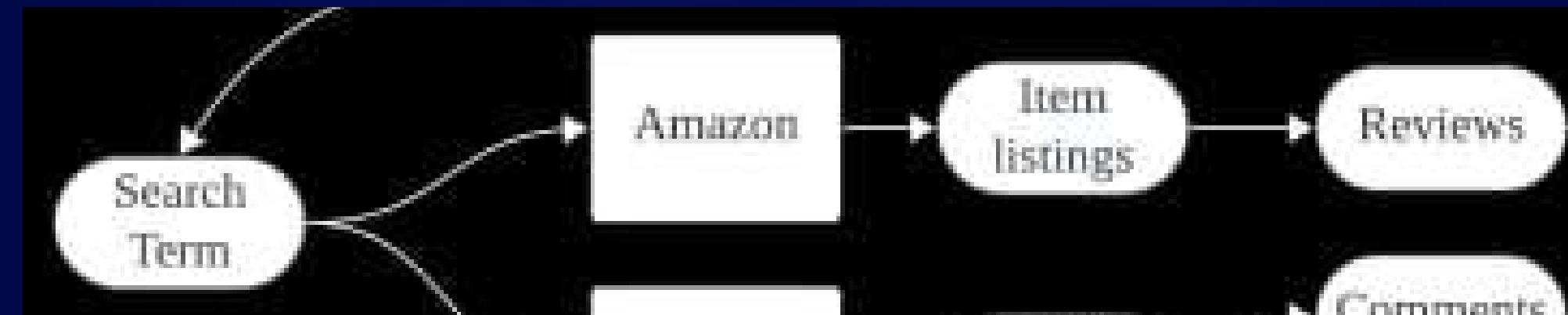


The screenshot shows the Amazon search interface. The search bar contains the query "galaxy tab s9 fe". Below the search bar, a dropdown menu lists various search suggestions starting with "galaxy tab s9 fe". The suggestions include "galaxy tab s9 fe 5g case", "galaxy tab s9 fe", "galaxy tab s9 fe case", "galaxy tab s9 fe 5g case with keyboard", "galaxy tab s9 fe screen protector", "galaxy tab s9 fe plus case", "galaxy tab s9 fe 5g screen protector", "galaxy tab s9 fe case with keyboard", "galaxy tab s9 fe 5g", and "galaxy tab s9 fe 128gb". The background of the page shows a blurred view of tablet products.

# GETTING REVIEWS

Variables

Name of 6 Tablet Models



All

Matthew's Amazon.com Gift Cards Customer Service Browsing History Registry

**Results**  
Check each product page for other buying options.

**Overall Pick**

**SAMSUNG**  
Galaxy Tab S9 FE Wi-Fi 10.9" 128GB Android Tablet, IP68 Water- and Dust-Resistant, Long Battery Life, Powerful Processor, S Pen, 8MP Camera Lightweight Design, US Version, 2023, Gray

Options: 2 sizes

★★★★★ 633  
2K+ bought in past month

Limited time deal

SGD 476<sup>55</sup> List: SGD 612.72

Ships to Singapore

Add to cart

More Buying Choices  
SGD 438.43 (15 used & new offers)

Color Options: Black, White, Silver, Gold

**SAMSUNG**  
Galaxy Tab S9 FE (SM-X510) W/S Pen, 256GB 8GB RAM, WiFi Only, Factory Unlocked GSM, International Version (Gray)

# GETTING REVIEWS

Variables

Name of 6 Tablet Models



erful-Processor-Lightweight/dp/B0CCX1JT6/ref=sr\_1\_1

[Top](#) [About this item](#) [Similar](#) [Questions](#) [Product information](#) [Reviews](#)

Blanca Sofia Aranda H

**Esta dañada?**  
Reviewed in Mexico on February 8, 2024  
Color: Mint | Size: 256GB | Style: Tablet Only | Pattern Name: S9 FE | **Verified Purchase**  
Al prenderla se pone en pantalla negra con letras, quiero saber si esta dañada para pedir devolución o cambio

3 people found this helpful

[Report](#)

[Translate review to English](#)

---

[See more reviews >](#)

# GETTING REVIEWS

Variables

Name of 6 Tablet Models

Amazon Reviews



L. Goldstein  
★★★★★ It works  
Reviewed in the United States on March 22, 2024  
Color: Gray | Size: 256GB | Style: Tablet Only | Pattern Name: S9 FE | Verified Purchase

Too soon to say anything about battery life, or value, or durability. Stupid things to ask me to rate after owing it for less than a week.

All I can say is that it works and the Samsung feature to transfer apps and data from an older tablet also worked. I did have to spend maybe 4 hour on the line with Samsung tech support due to their Catch-22 2 factor authentication. It seems that if you don't have a textable smart phone (and I don't) you can only do the REQUIRED 2-factor authentication via pre-generated PINS. BUT .... you can only generate the PINS if you have already passed 2-factor authentication, which needs a smart phone. Are you with me? They do not offer sending a voice message with the secret one-time use PIN to a phone. Noooooo. Only text messaging will do. This is absurd and exceptionally inconvenient. Grrr to Samsung.

2 people found this helpful

Helpful | Report

< Previous page Next page 2

# GETTING REVIEWS (METHODS EXPLORED)

The logo for BeautifulSoup, featuring the word "Beautiful" in a bold, black, sans-serif font and "soup" in a smaller, italicized, black, sans-serif font. The two words are connected by a vertical line that also forms the tail of the 'j' in "Beautiful".

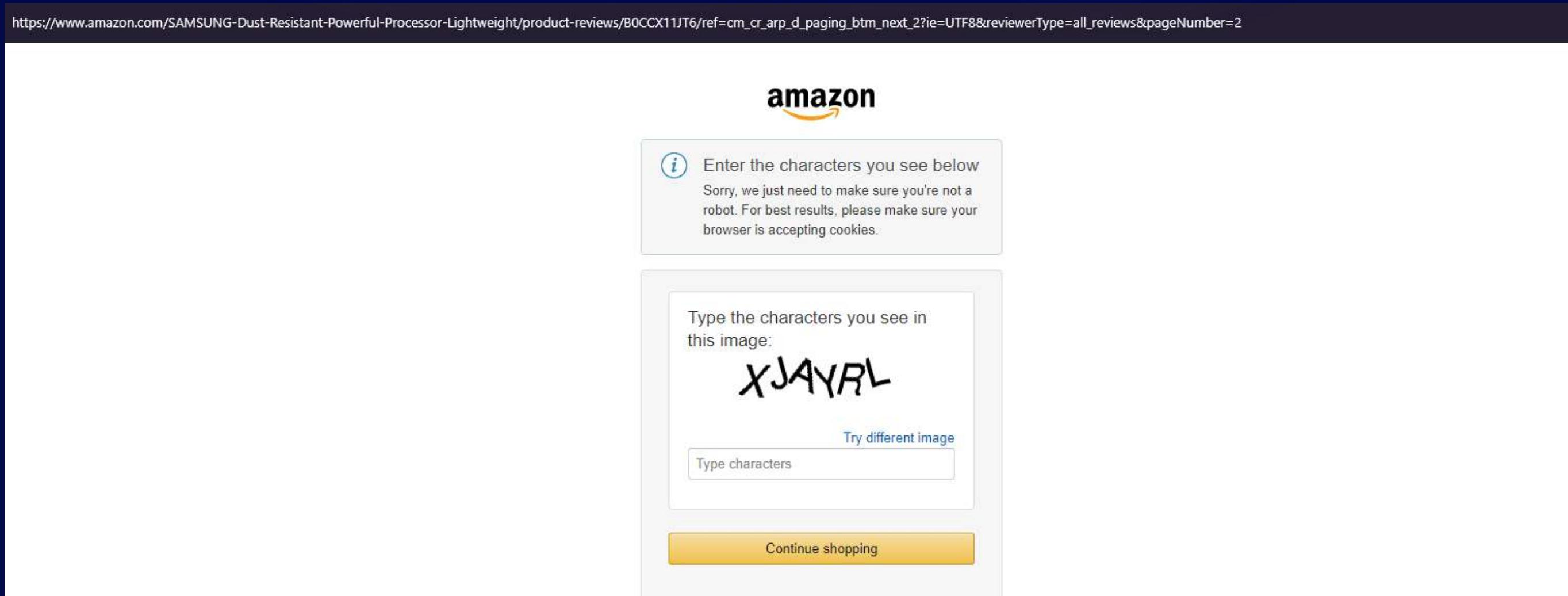
## ADVANTAGES

- Fast
- Lightweight
- Easy to use

## DISADVANTAGES

- Easily detected by anti-scraping measures

# GETTING REVIEWS (METHODS EXPLORED)



# GETTING REVIEWS (METHODS EXPLORED)

www.amazon.com/SAMSUNG-Dust-Resistant-Powerful-Processor-Lightweight/product-reviews/B0CCX11JT6/ref=cm\_cr\_arp\_d\_paging\_btm\_next\_2

Search Go

SORRY  
we couldn't find that page

Try searching or go to [Amazon's home page](#).



Tanq  
[Meet the dogs of Amazon](#)

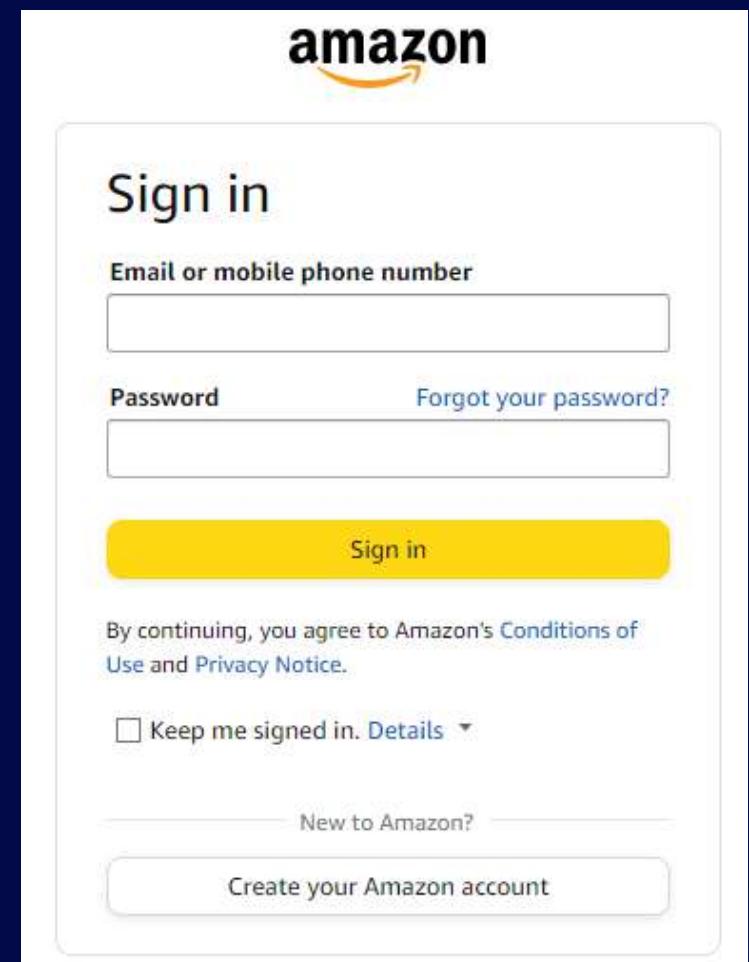
This image shows a screenshot of an Amazon product review page that has resulted in a 404 error. The page displays a standard 'Sorry, we couldn't find that page' message with a search bar at the top and a 'Meet the dogs of Amazon' sidebar featuring a photo of a black Pomeranian named Tanq.

# GETTING REVIEWS (METHODS EXPLORED)

Login to bypass measure

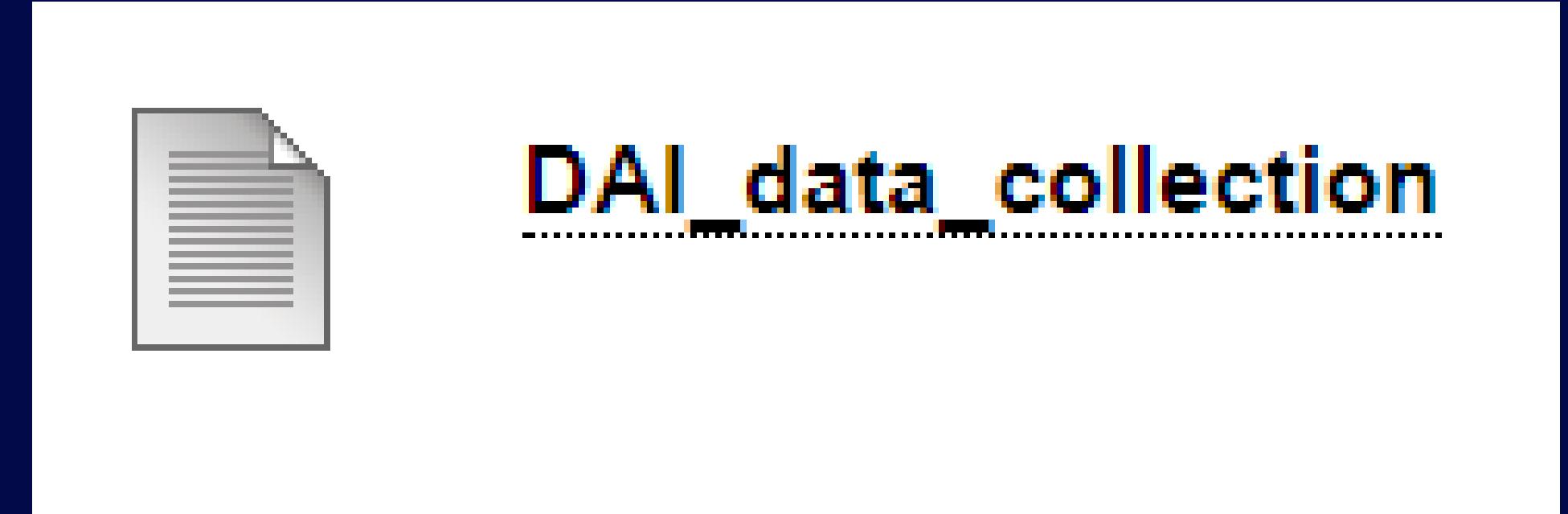
```
driver.get("https://www.amazon.com/ap/signin?openid.page.max_auth_age=0&openid.return_to=...  
time.sleep(1) # Wait for a few seconds to ensure the page loads completely  
email = driver.find_element(By.ID, "ap_email")  
email.send_keys("samiraonly70@gmail.com")  
driver.find_element(By.ID, "continue").click()  
time.sleep(1)  
password = driver.find_element(By.ID, "ap_password")  
password.send_keys("pp11qq")  
driver.find_element(By.ID, "signInSubmit").click()  
time.sleep(1)
```

✓ 6.1s



# GETTING COMMENTS

Variables
Name of 6 Tablet Models
Amazon Reviews
Youtube Comments



# GETTING CAPTIONS

Variables
Name of 6 Tablet Models
Amazon Reviews
Youtube Comments
Youtube Captions



Search projects Help Sponsors Log in Register

## youtube-transcript-api 0.6.2

pip install youtube-transcript-api [Download](#) Latest version Released: Dec 27, 2023

This is an python API which allows you to get the transcripts/subtitles for a given YouTube video. It also works for automatically generated subtitles, supports translating subtitles and it does not require a headless browser, like other selenium based solutions do!

**Navigation**

- Project description
- Release history
- Download files

**Project description**

**YouTube Transcript/Subtitle API (including automatically generated subtitles and subtitle translations)**

Donate [PayPal](#) build [passing](#) coverage [100%](#) license [MIT](#) pypi [v0.6.2](#) python [3.5 | 3.6 | 3.7 | 3.8](#)

This is a python API which allows you to get the transcript/subtitles for a given YouTube video. It also works for automatically generated subtitles, supports translating subtitles and it does not require a headless browser, like other selenium based solutions do!

# GETTING CAPTIONS (METHODS EXPLORED)

Home > Products > YouTube > Data API > Reference

## Captions: download ↗

Downloads a caption track. The caption track is returned in its original format unless the request specifies a value for the `tfmt` parameter and in its original language unless the request specifies a value for the `tlang` parameter.

★ **Quota impact:** A call to this method has a [quota cost](#) of 200 units.

### Common use cases

This method has one common use case, which is described below. The buttons below the description populate the APIs Explorer with sample values or open the fullscreen APIs Explorer to show code samples that use those values. The code samples also dynamically update if you change the values.

This example downloads the specified caption track. You must use the `id` parameter to specify a caption track ID for the code sample to work. The `tfmt` and `tlang` parameters are both optional and allow you to download a particular format or machine translation of the track, respectively.

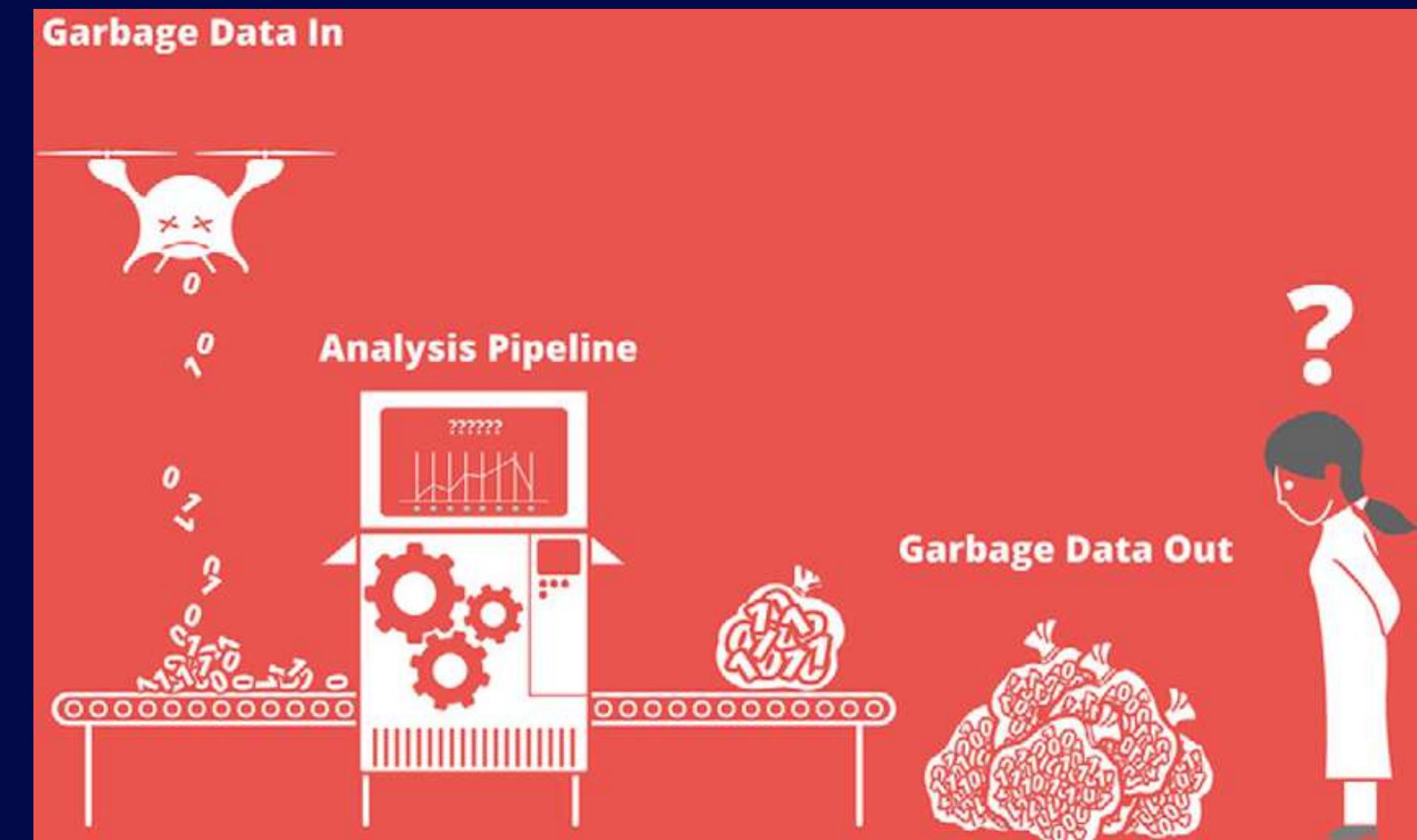
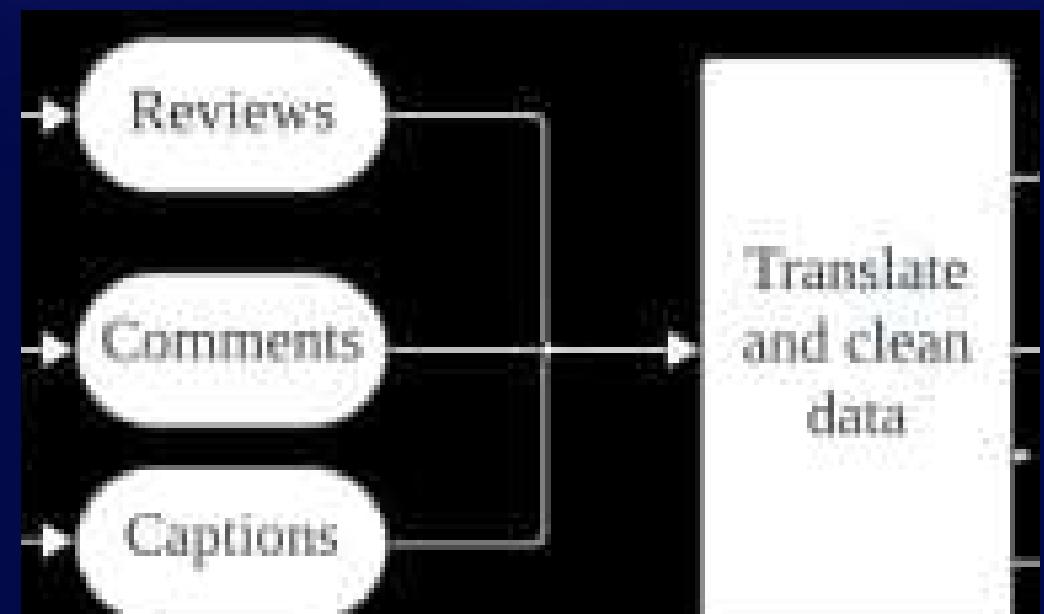
### Authorization

This request requires authorization with at least one of the following scopes ([read more about authentication and authorization](#)).

Scope
<a href="https://www.googleapis.com/auth/youtube.force-ssl">https://www.googleapis.com/auth/youtube.force-ssl</a>
<a href="https://www.googleapis.com/auth/youtubepartner">https://www.googleapis.com/auth/youtubepartner</a>

# DATA CLEANING

Variables
Name of 6 Tablet Models
Amazon Reviews (Cleaned)
Youtube Comments (Cleaned)
Youtube Captions (Cleaned)



# DATA CLEANING (ELABORATION)

## ORIGINAL COMMENT

What is the green film you show at <a href="https://www.youtube.com/watch?v=hpTkMS\_Pvz8&t=90">1:30</a> that allows you to detect internal speakers?  
Can you post a link on where to find it?

## CLEANED COMMENT

What is the green film you show at 1:30 that allows you to detect internal speakers? Can you post a link on where to find it?

# DATA CLEANING (ELABORATION)

```
def clean_text(text):                                # user defined function for cleaning text
    if len(text) == 0:
        print('awefauewtyfveawifu')
        print(text)
        return str("Nothing")

    #text = text.lower()                               # all lower case
    text = re.sub(r'\[.*?\]', ' ', text)             # remove text within [ ] (' ' instead of '')
    text = re.sub(r'<.*?>', ' ', text)              # remove text within < > (' ' instead of '')
    text = re.sub(r'http\S+', ' ', text)             # remove website ref http
    text = re.sub(r'www\S+', ' ', text)              # remove website ref www
    text = text.replace('<br>', ' ')
    text = re.sub(r'<a\s+href=".*/affiliate.*?">(.*?)</a>', r'\1', text)  #remove affiliate links
    text = text.replace('\n', ' ')                   # remove \n in text that has it
    text = text.replace('\'', '')                   # standardise apostrophe

    text = text.replace('€', 'euros')
    text = text.replace('£', 'gbp')
    text = text.replace('$', 'dollar')
    text = text.replace('%', 'percent')
    text = text.replace('\"', '')

    text = text.strip()
    return text
```

## ORIGINAL COMMENT

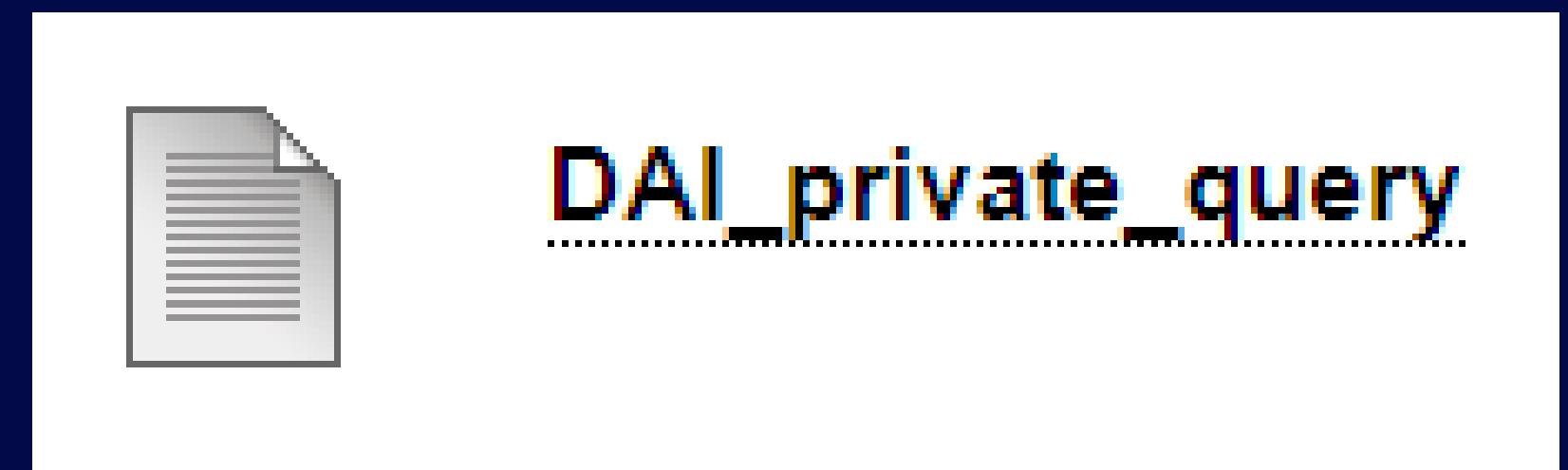
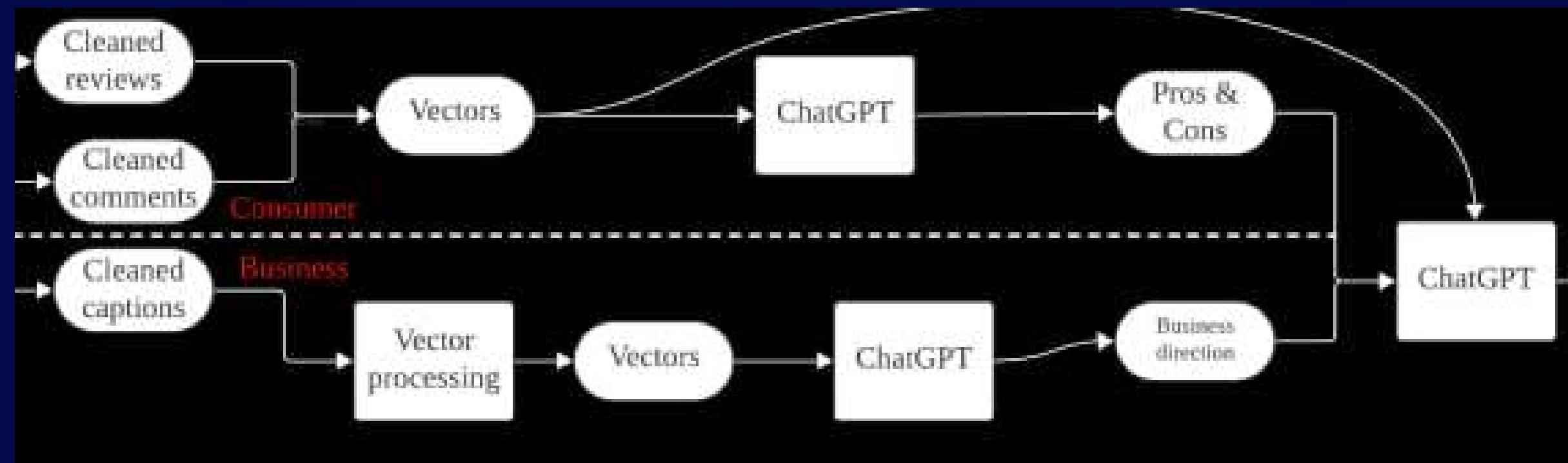
What is the green film you show at <a href="https://www.youtube.com/watch?v=hpTkMS\_Pvz8&t=90">1:30</a> that allows you to detect internal speakers? Can you post a link on where to find it?

## CLEANED COMMENT

What is the green film you show at 1:30 that allows you to detect internal speakers? Can you post a link on where to find it?

# RETRIEVAL AUGMENTED GENERATION (RAG)

Variables
Name of 6 Tablet Models
Amazon Reviews (Cleaned)
Youtube Comments (Cleaned)
Youtube Captions (Cleaned)



# RETRIEVAL AUGMENTED GENERATION (RAG)

Variables

Name of 6 Tablet  
Models

Amazon Reviews  
(Cleaned)

Youtube  
Comments  
(Cleaned)

Youtube  
Captions  
(Cleaned)

```
question = f"What are 3 pros and 3 cons of the {products[i]}? Provide an overall summary of the {products[i]}." # input question
template = "If the review does not mention it, state 'It was not mentioned'."
context = f"The text is from the amazon reviews and comments of youtube videos that reviewed the {products[i]}"
```

# RETRIEVAL AUGMENTED GENERATION (RAG)

Variables
Name of 6 Tablet Models

Amazon Reviews (Cleaned)
--------------------------

```
question = f"What are 3 pros and 3 cons of the {products[i]}? Provide an overall summary of the {products[i]}." # input question
template = "If the review does not mention it, state 'It was not mentioned'."
context = f"The text is from the amazon reviews and comments of youtube videos that reviewed the {products[i]}"
```

Youtube Comments (Cleaned)
----------------------------

--Galaxy Tab S9 FE--

Based on the provided text, here are three pros and three cons of the Galaxy Tab S9 FE, along with an overall summary:

**Pros:**

- Display Quality:** The Tab S9 FE is noted for having a stellar display, comparable to high-quality devices like the iPad Air 5th gen and the Tab S8.
- Optimization:** The 8GB and 256GB configuration is recommended for optimal performance with OneUI, suggesting good software and hardware integration.
- Accessories:** There are specific mentions of available accessories like the Book Cover Keyboard, which can enhance usability.

**Cons:**

- Android Version Issues:** There is a mention of the device running Android 13 with no available update to Android 14, which could be a downside for users looking for the latest operating system.
- Price Concerns:** There is a question about whether the additional cost of the Tab S9 over the S9 FE Plus is justified, indicating concerns about value for money.
- Potential Longevity Issues:** A user questioned whether the 6GB variant might encounter problems in the long run, suggesting potential concerns about future-proofing and performance degradation.

**Overall Summary:** The Galaxy Tab S9 FE appears to be a solid device with a high-quality display and good performance, especially in the recommended 8GB/256GB configuration. It supports useful accessories that can enhance its functionality. However, there are concerns about the software updates and whether the price point is justified compared to other models. Additionally, there might be concerns about the long-term performance of lower-spec variants. Overall, the Tab S9 FE seems to be a capable tablet with specific strengths and a few potential drawbacks to consider.

**Note:** Some aspects like speaker quality and suitability for specific tasks like music production were mentioned but not detailed enough to conclusively list as pros or cons.

Youtube Captions (Cleaned)
----------------------------

# RETRIEVAL AUGMENTED GENERATION (RAG)

Variables
Name of 6 Tablet Models

Amazon Reviews (Cleaned)
--------------------------

```
question = f"What are 3 pros and 3 cons of the {products[i]}? Provide an overall summary of the {products[i]}." # input question
template = "If the review does not mention it, state 'It was not mentioned'."
context = f"The text is from the amazon reviews and comments of youtube videos that reviewed the {products[i]}"
```

Youtube Comments (Cleaned)
----------------------------

--Galaxy Tab S9 FE--

Based on the provided text, here are three pros and three cons of the Galaxy Tab S9 FE, along with an overall summary:

**Pros:**

- 1. **Display Quality:** The Tab S9 FE is noted for having a stellar display, comparable to high-quality devices like the iPad Air 5th gen and the Tab S8.
- 2. **Optimization:** The 8GB and 256GB configuration is recommended for optimal performance with OneUI, suggesting good software and hardware integration.
- 3. **Accessories:** There are specific mentions of available accessories like the Book Cover Keyboard, which can enhance usability.

Youtube Captions (Cleaned)
----------------------------

**Cons:**

- 1. **Android Version Issues:** There is a mention of the device running Android 13 with no available update to Android 14, which could be a downside for users looking for the latest operating system.
- 2. **Price Concerns:** There is a question about whether the additional cost of the Tab S9 over the S9 FE Plus is justified, indicating concerns about value for money.
- 3. **Potential Longevity Issues:** A user questioned whether the 6GB variant might encounter problems in the long run, suggesting potential concerns about future-proofing and performance degradation.

**Overall Summary:** The Galaxy Tab S9 FE appears to be a solid device with a high-quality display and good performance, especially in the recommended 8GB/256GB configuration. It supports useful accessories that can enhance its functionality. However, there are concerns about the software updates and whether the price point is justified compared to other models. Additionally, there might be concerns about the long-term performance of lower-spec variants. Overall, the Tab S9 FE seems to be a capable tablet with specific strengths and a few potential drawbacks to consider.

**Note:** Some aspects like speaker quality and suitability for specific tasks like music production were mentioned but not detailed enough to conclusively list as pros or cons.

# RETRIEVAL AUGMENTED GENERATION (RAG)

Variables

Name of 6 Tablet Models

Amazon Reviews (Cleaned)

Youtube Comments (Cleaned)

Youtube Captions (Cleaned)

```
question = f"What are 3 pros and 3 cons of the {products[i]}? Provide an overall summary of the {products[i]}." # input question
template = "If the review does not mention it, state 'It was not mentioned'."
context = f"The text is from the amazon reviews and comments of youtube videos that reviewed the {products[i]}"
```

--Galaxy Tab S9 FE--

Based on the provided text, here are three pros and three cons of the Galaxy Tab S9 FE, along with an overall summary:

**Pros:**

1. **Display Quality:** The Tab S9 FE is noted for having a stellar display, comparable to high-quality devices like the iPad Air 5th gen and the Tab S8.
2. **Optimization:** The 8GB and 256GB configuration is recommended for optimal performance with OneUI, suggesting good software and hardware integration.
3. **Accessories:** There are specific mentions of available accessories like the Book Cover Keyboard, which can enhance usability.

**Cons:**

1. **Android Version Issues:** There is a mention of the device running Android 13 with no available update to Android 14, which could be a downside for users looking for the latest operating system.
2. **Price Concerns:** There is a question about whether the additional cost of the Tab S9 over the S9 FE Plus is justified, indicating concerns about value for money.
3. **Potential Longevity Issues:** A user questioned whether the 6GB variant might encounter problems in the long run, suggesting potential concerns about future-proofing and performance degradation.

**Overall Summary:** The Galaxy Tab S9 FE appears to be a solid device with a high-quality display and good performance, especially in the recommended 8GB/256GB configuration. It supports useful accessories that can enhance its functionality. However, there are concerns about the software updates and whether the price point is justified compared to other models. Additionally, there might be concerns about the long-term performance of lower-spec variants. Overall, the Tab S9 FE seems to be a capable tablet with specific strengths and a few potential drawbacks to consider.

**Note:** Some aspects like speaker quality and suitability for specific tasks like music production were mentioned but not detailed enough to conclusively list as pros or cons.

# RETRIEVAL AUGMENTED GENERATION (RAG)

Variables
Name of 6 Tablet Models

Amazon Reviews (Cleaned)
--------------------------

```
question = f"What are 3 pros and 3 cons of the {products[i]}? Provide an overall summary of the {products[i]}." # input question
template = "If the review does not mention it, state 'It was not mentioned'."
context = f"The text is from the amazon reviews and comments of youtube videos that reviewed the {products[i]}"
```

Youtube Comments (Cleaned)
----------------------------

--Galaxy Tab S9 FE--

Based on the provided text, here are three pros and three cons of the Galaxy Tab S9 FE, along with an overall summary:

**Pros:**

- Display Quality:** The Tab S9 FE is noted for having a stellar display, comparable to high-quality devices like the iPad Air 5th gen and the Tab S8.
- Optimization:** The 8GB and 256GB configuration is recommended for optimal performance with OneUI, suggesting good software and hardware integration.
- Accessories:** There are specific mentions of available accessories like the Book Cover Keyboard, which can enhance usability.

**Cons:**

- Android Version Issues:** There is a mention of the device running Android 13 with no available update to Android 14, which could be a downside for users looking for the latest operating system.
- Price Concerns:** There is a question about whether the additional cost of the Tab S9 over the S9 FE Plus is justified, indicating concerns about value for money.
- Potential Longevity Issues:** A user questioned whether the 6GB variant might encounter problems in the long run, suggesting potential concerns about future-proofing and performance degradation.

**Overall Summary:** The Galaxy Tab S9 FE appears to be a solid device with a high-quality display and good performance, especially in the recommended 8GB/256GB configuration. It supports useful accessories that can enhance its functionality. However, there are concerns about the software updates and whether the price point is justified compared to other models. Additionally, there might be concerns about the long-term performance of lower-spec variants. Overall, the Tab S9 FE seems to be a capable tablet with specific strengths and a few potential drawbacks to consider.

**Note:** Some aspects like speaker quality and suitability for specific tasks like music production were mentioned but not detailed enough to conclusively list as pros or cons.

Youtube Captions (Cleaned)
----------------------------

# RETRIEVAL AUGMENTED GENERATION (RAG)

Variables
Name of 6 Tablet Models
Amazon Reviews (Cleaned)
Youtube Comments (Cleaned)
Youtube Captions (Cleaned)

```
question = f"Infer what the business direction of the company behind {products[0]} is. " # input question
template = "If the review does not imply it, state 'It was not implied'."
context = f"The text is from the caption of youtube videos that reviewed the {products[0]}.
These reviewers are assumed to be more aware of the ongoing events in the tech industry."
prompt = context + question + template
```

# RETRIEVAL AUGMENTED GENERATION (RAG)

Variables
Name of 6 Tablet Models
Amazon Reviews (Cleaned)
Youtube Comments (Cleaned)
Youtube Captions (Cleaned)

```
question = f"Infer what the business direction of the company behind {products[0]} is. " # input question
template = "If the review does not imply it, state 'It was not implied'."
context = f"The text is from the caption of youtube videos that reviewed the {products[0]}.
These reviewers are assumed to be more aware of the ongoing events in the tech industry."
prompt = context + question + template
```

-----Inferred Business Direction of the Samsung Galaxy Tab S9 FE-----

The business direction of the company behind the Galaxy Tab S9 FE, as inferred from the reviews, seems to be focused on offering a more budget-friendly option within their premium tablet line. By introducing the Galaxy Tab S9 FE and FE+ as less extravagant alternatives to the high-end Galaxy Tab S9 Ultra, the company appears to be targeting consumers with more moderate budgets who may not require the top-tier features of the Ultra model but still desire a quality tablet experience. This strategy suggests an aim to broaden their market reach and appeal to a wider range of consumers by providing options at different price points.

# RETRIEVAL AUGMENTED GENERATION (RAG)

Variables

Name of 6 Tablet  
Models

Amazon Reviews  
(Cleaned)

Youtube  
Comments  
(Cleaned)

Youtube  
Captions  
(Cleaned)

```
question = f"What are some general feedback about the {products[0]}? Provide some recommended design changes to the {products[0]}  
that aligns with the business direction here: {busdir}." # input question  
template = "If the review does not imply it, state 'It was not implied'."  
context = f"The text is from the amazon reviews and comments of youtube videos that reviewed the {products[i]}"  
prompt = context + question + template
```

# RETRIEVAL AUGMENTED GENERATION (RAG)

Variables
Name of 6 Tablet Models

Amazon Reviews (Cleaned)
--------------------------

```
question = f"What are some general feedback about the {products[0]}? Provide some recommended design changes to the {products[0]} that aligns with the business direction here: {busdir}." # input question
template = "If the review does not imply it, state 'It was not implied'."
context = f"The text is from the amazon reviews and comments of youtube videos that reviewed the {products[i]}"
prompt = context + question + template
```

Youtube Comments (Cleaned)
----------------------------

-----Recommended design improvement for the Galaxy Tab S9 FE-----

The general feedback about the Galaxy Tab S9 FE from the provided text suggests that it is a well-received device, particularly for its value as a budget-friendly option compared to the flagship models. Users appreciate its large size, which is ideal for watching movies, and its performance, which is described as smooth and quick, though not as fast as the flagship models. The tablet is also noted for its durability, being water and dust resistant, and offers practical features like a fingerprint sensor and 5G options. However, it lacks a Snapdragon chip, which some users might miss for enhanced performance.

Youtube Captions (Cleaned)
----------------------------

Recommended design changes to align with the business direction of offering budget-friendly yet quality tablets could include:

1. **Enhanced Chipset:** While maintaining cost-effectiveness, slightly improving the chipset within budget constraints could enhance the appeal. This doesn't necessarily mean using a Snapdragon chip, but perhaps a more powerful mid-range processor could be a good compromise.
2. **Expand Color Options:** As noted, the Tab S9 FE offers more color options than the Tab S9, which is a liked feature. Continuing to expand the color range could further appeal to personal consumer preferences and help differentiate the FE models in the market.
3. **Optimization for Lower RAM Variants:** Since there is a mention of the 8GB variant being optimized for OneUI, ensuring that lower RAM variants like the 6GB also offer a smooth user experience could enhance customer satisfaction and broaden its appeal to budget-conscious buyers who opt for the lower RAM model.
4. **Battery Life Improvements:** Although not specifically mentioned in the feedback, for budget tablets, enhancing battery life can be a significant selling point for users who need reliable devices for long working hours or media consumption.
5. **Sustainable Materials:** To appeal to environmentally conscious consumers, incorporating recycled materials or offering a trade-in or recycling program could enhance the brand's image and appeal.

These changes could help Samsung further solidify its position in the budget-friendly segment while still offering devices that meet the needs and expectations of a broad range of consumers.

# RETRIEVAL AUGMENTED GENERATION (RAG)

Variables

Name of 6 Tablet Models

Amazon Reviews (Cleaned)

Youtube Comments (Cleaned)

Youtube Captions (Cleaned)

```
question = f"What are some general feedback about the {products[0]}? Provide some recommended design changes to the {products[0]} that aligns with the business direction here: {busdir}." # input question
template = "If the review does not imply it, state 'It was not implied'."
context = f"The text is from the amazon reviews and comments of youtube videos that reviewed the {products[i]}"
prompt = context + question + template
```

-----Recommended design improvement for the Galaxy Tab S9 FE-----

The general feedback about the Galaxy Tab S9 FE from the provided text suggests that it is a well-received device, particularly for its value as a budget-friendly option compared to the flagship models. Users appreciate its large size, which is ideal for watching movies, and its performance, which is described as smooth and quick, though not as fast as the flagship models. The tablet is also noted for its durability, being water and dust resistant, and offers practical features like a fingerprint sensor and 5G options. However, it lacks a Snapdragon chip, which some users might miss for enhanced performance.

Recommended design changes to align with the business direction of offering budget-friendly yet quality tablets could include:

1. **Enhanced Chipset:** While maintaining cost-effectiveness, slightly improving the chipset within budget constraints could enhance the appeal. This doesn't necessarily mean using a Snapdragon chip, but perhaps a more powerful mid-range processor could be a good compromise.
2. **Expand Color Options:** As noted, the Tab S9 FE offers more color options than the Tab S9, which is a liked feature. Continuing to expand the color range could further appeal to personal consumer preferences and help differentiate the FE models in the market.
3. **Optimization for Lower RAM Variants:** Since there is a mention of the 8GB variant being optimized for OneUI, ensuring that lower RAM variants like the 6GB also offer a smooth user experience could enhance customer satisfaction and broaden its appeal to budget-conscious buyers who opt for the lower RAM model.
4. **Battery Life Improvements:** Although not specifically mentioned in the feedback, for budget tablets, enhancing battery life can be a significant selling point for users who need reliable devices for long working hours or media consumption.
5. **Sustainable Materials:** To appeal to environmentally conscious consumers, incorporating recycled materials or offering a trade-in or recycling program could enhance the brand's image and appeal.

These changes could help Samsung further solidify its position in the budget-friendly segment while still offering devices that meet the needs and expectations of a broad range of consumers.

# RETRIEVAL AUGMENTED GENERATION (RAG)

Variables

Name of 6 Tablet Models

Amazon Reviews (Cleaned)

Youtube Comments (Cleaned)

Youtube Captions (Cleaned)

```
question = f"What are some general feedback about the {products[0]}? Provide some recommended design changes to the {products[0]} that aligns with the business direction here: {busdir}." # input question
template = "If the review does not imply it, state 'It was not implied'."
context = f"The text is from the amazon reviews and comments of youtube videos that reviewed the {products[i]}"
prompt = context + question + template
```

-----Recommended design improvement for the Galaxy Tab S9 FE-----

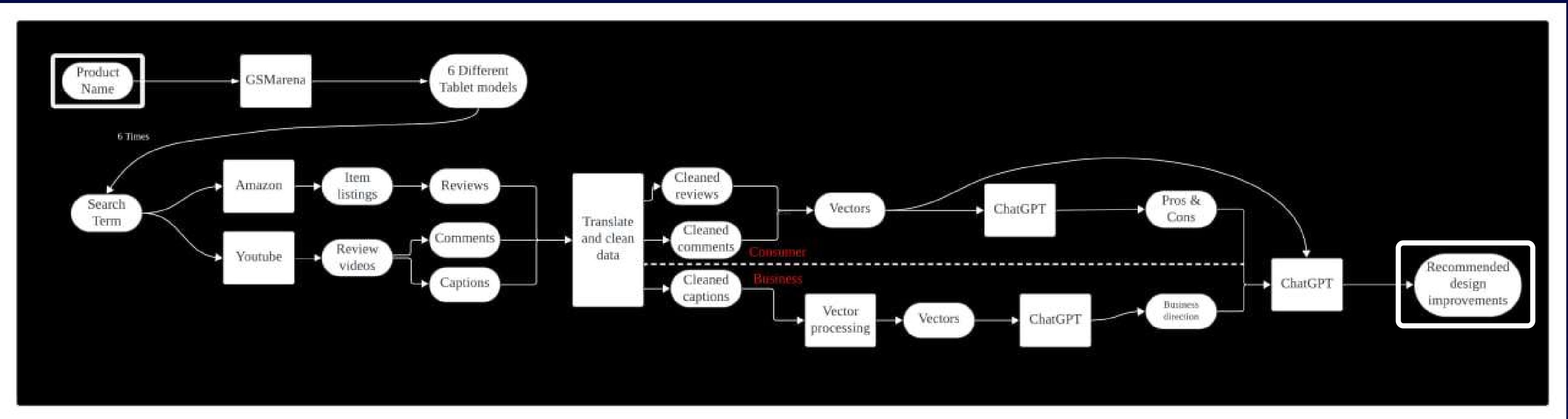
The general feedback about the Galaxy Tab S9 FE from the provided text suggests that it is a well-received device, particularly for its value as a budget-friendly option compared to the flagship models. Users appreciate its large size, which is ideal for watching movies, and its performance, which is described as smooth and quick, though not as fast as the flagship models. The tablet is also noted for its durability, being water and dust resistant, and offers practical features like a fingerprint sensor and 5G options. However, it lacks a Snapdragon chip, which some users might miss for enhanced performance.

Recommended design changes to align with the business direction of offering budget-friendly yet quality tablets could include:

1. **Enhanced Chipset:** While maintaining cost-effectiveness, slightly improving the chipset within budget constraints could enhance the appeal. This doesn't necessarily mean using a Snapdragon chip, but perhaps a more powerful mid-range processor could be a good compromise.
2. **Expand Color Options:** As noted, the Tab S9 FE offers more color options than the Tab S9, which is a liked feature. Continuing to expand the color range could further appeal to personal consumer preferences and help differentiate the FE models in the market.
3. **Optimization for Lower RAM Variants:** Since there is a mention of the 8GB variant being optimized for OneUI, ensuring that lower RAM variants like the 6GB also offer a smooth user experience could enhance customer satisfaction and broaden its appeal to budget-conscious buyers who opt for the lower RAM model.
4. **Battery Life Improvements:** Although not specifically mentioned in the feedback, for budget tablets, enhancing battery life can be a significant selling point for users who need reliable devices for long working hours or media consumption.
5. **Sustainable Materials:** To appeal to environmentally conscious consumers, incorporating recycled materials or offering a trade-in or recycling program could enhance the brand's image and appeal.

These changes could help Samsung further solidify its position in the budget-friendly segment while still offering devices that meet the needs and expectations of a broad range of consumers.

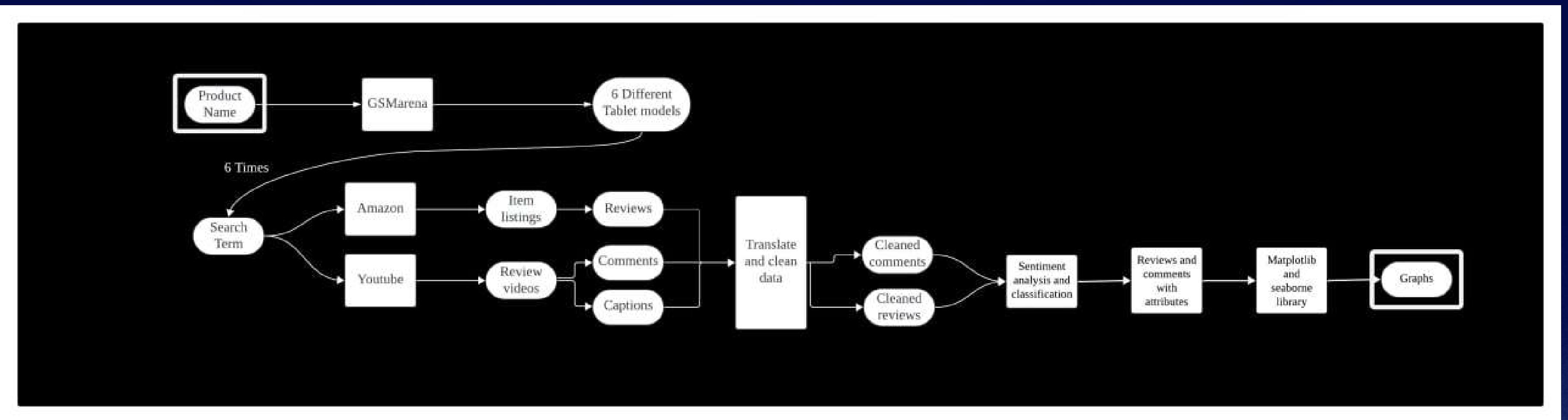
# DATA ARCHITECTURE



# OTHER EXPLORED METHODS



# DATA ARCHITECTURE (EXPLORATORY DATA ANALYSIS)



# DATA PROCESSING

Variables
Name of 6 Tablet Models
Amazon Reviews (Cleaned)
Youtube Comments (Cleaned)
Youtube Captions (Cleaned)



# DATA PROCESSING

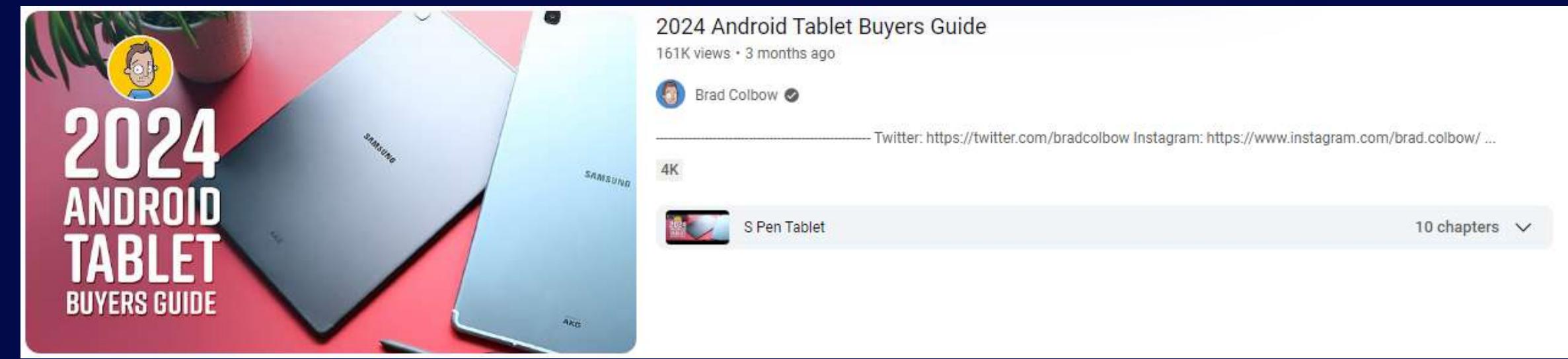
Variables

Name of 6 Tablet Models

Amazon Reviews (Cleaned)

Youtube Comments (Cleaned)

Youtube Captions (Cleaned)



## 8 Things to Consider When Buying a Tablet

There's more to think about than just the price and size. Figure out the features you need in a tablet before you buy

By [Mark Kyrnin](#) · Updated on February 13, 2024

## Tablet Buying Guide

By Nicholas De Leon

Updated October 26, 2023

# DATA PROCESSING

## CATEGORIES

1. **Ergonomics**
2. **Build Quality**
3. **Portability**
4. **Display**
5. **Performance**
6. **Connectivity**
7. **Audio**
8. **Cost**

# DATA PROCESSING

## CATEGORIES

1. **Ergonomics**: Ergonomic design for holding and interacting with the tablet.
2. **Build Quality**: Quality materials that feel premium and durable.
3. **Portability**: Slim and lightweight design for easy portability.
4. **Display**: High-resolution screen with vibrant colors and good contrast.
5. **Performance**: Fast and responsive hardware for smooth multitasking and multimedia consumption.
6. **Connectivity**: Ports for charging, data transfer, and connecting to external displays or accessories.
7. **Audio**: Clear and immersive audio output for multimedia consumption and video conferencing.
8. **Cost**: Low cost without significantly affecting the price of a tablet.

# DATA PROCESSING

## CATEGORIES

1. **Ergonomics**
2. **Build Quality**
3. **Portability**
4. **Display**
5. **Performance**
6. **Connectivity**
7. **Audio**
8. **Cost**

```
for i in range(len(products)):  
    candidates = [  
        ['Ergonomics Related', 'NOT Ergonomics Related'],  
        ['Build Quality Related', 'NOT Build Related Quality'],  
        ['Portability Related', 'NOT Portability Related'],  
        ['Display Related', 'NOT Display Related'],  
        ['Performance Related', 'NOT Performance Related'],  
        ['Connectivity Related', 'NOT Connectivity Related'],  
        ['Audio Related', 'NOT Audio Related'],  
        ['Cost Related', 'NOT Cost Related']  
    ]  
    model = "facebook/bart-large-mnli" #  
    # model = "MoritzLaurer/mDeBERTa-v3-base-mnli-xnli"  
    classifier = pipeline("zero-shot-classification", model=model)  
    ergr= classifier(comment_list[i], candidate_labels=candidates[0])  
    qltr= classifier(comment_list[i], candidate_labels=candidates[1])  
    prtr= classifier(comment_list[i], candidate_labels=candidates[2])  
    disr= classifier(comment_list[i], candidate_labels=candidates[3])  
    perr= classifier(comment_list[i], candidate_labels=candidates[4])  
    conr= classifier(comment_list[i], candidate_labels=candidates[5])  
    audr= classifier(comment_list[i], candidate_labels=candidates[6])  
    cstr= classifier(comment_list[i], candidate_labels=candidates[7])
```

# DATA PROCESSING

## CATEGORIES

1. **Ergonomics**
2. **Build Quality**
3. **Portability**
4. **Display**
5. **Performance**
6. **Connectivity**
7. **Audio**
8. **Cost**

## REVIEW:

The A9+ is a good general use product. It doesn't have a high res screen with OLED or 120Hz, but it gets the job done. I really appreciated the headphone jack and MicroSD card slot. However, I wish it had a fingerprint reader and front-facing speakers. The screen is sharp at this size but it dims noticeably off angle..

# DATA PROCESSING

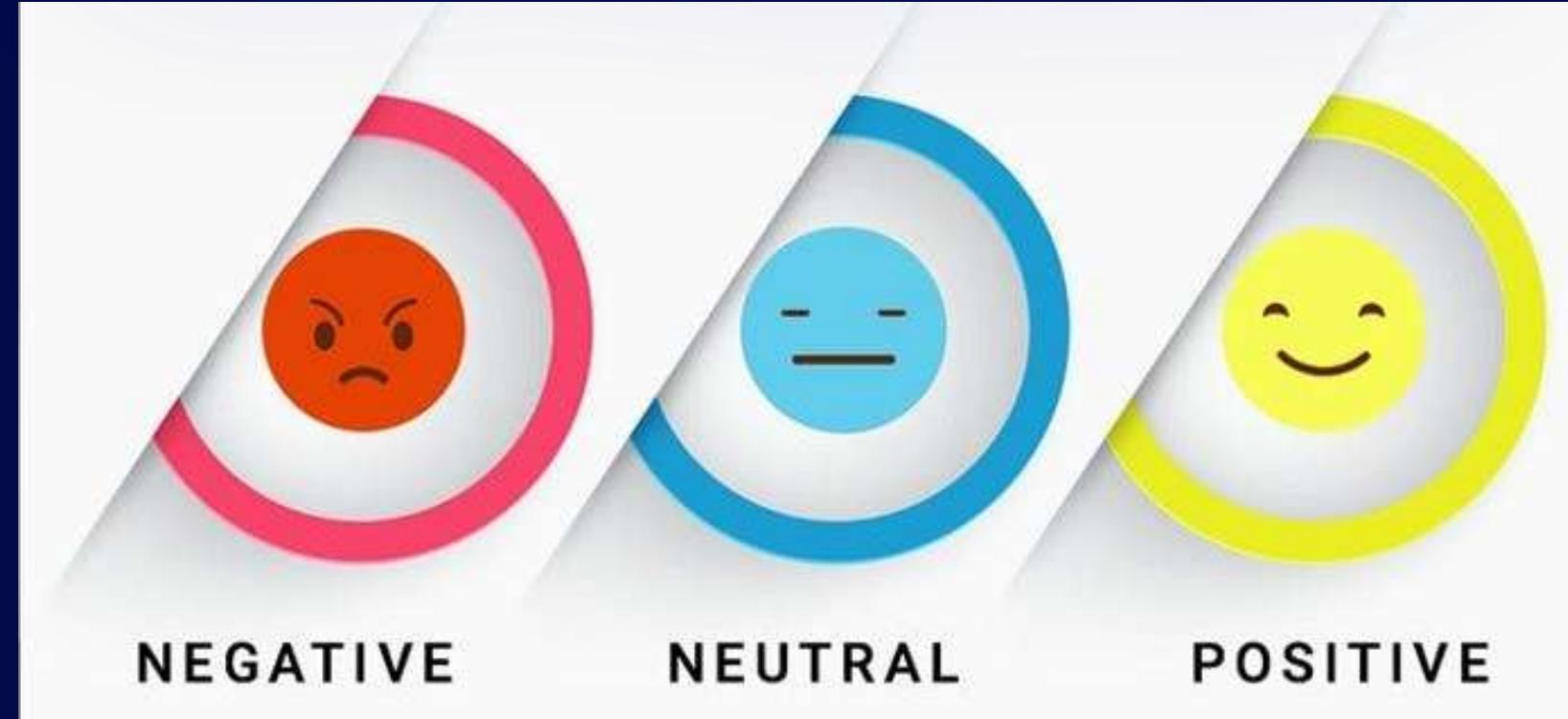
## CATEGORIES

1. **Ergonomics**
2. **Build Quality**
3. **Portability**
4. **Display**
5. **Performance**
6. **Connectivity**
7. **Audio**
8. **Cost**

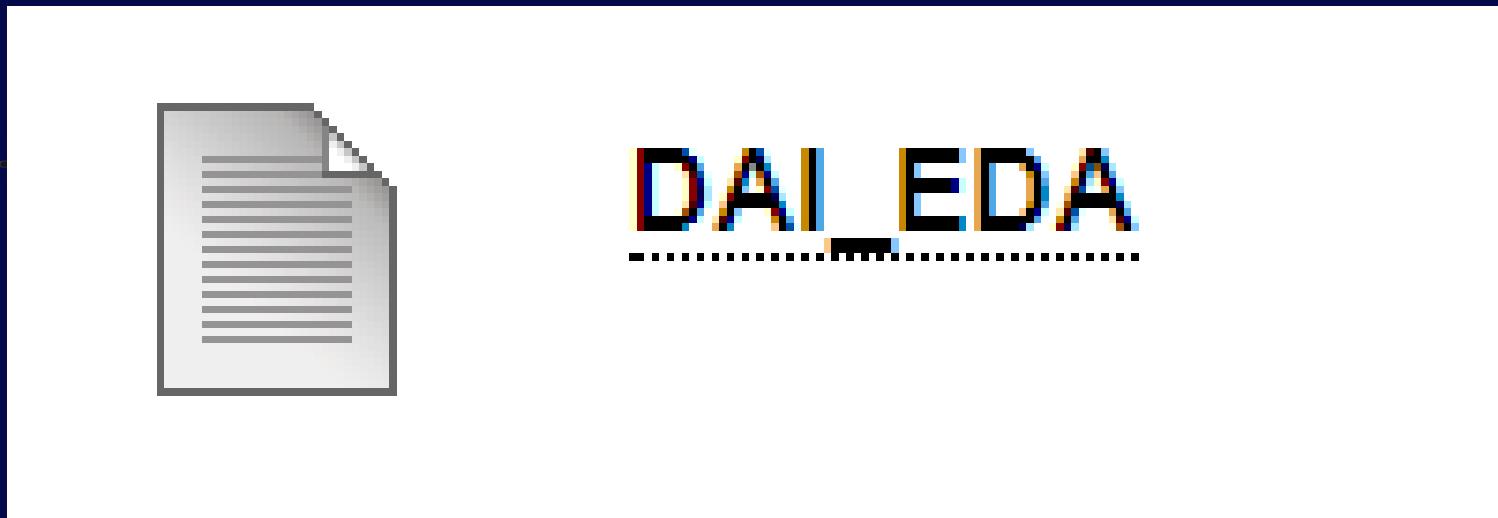
## REVIEW:

The A9+ is a good general use product. It doesn't have a high res screen with OLED or 120Hz, but it gets the job done. I really appreciated the headphone jack and MicroSD card slot. However, I wish it had a fingerprint reader and front-facing speakers. The screen is sharp at this size but it dims noticeably off angle..

# DATA PROCESSING



SENTIMENT ANALYSIS: TWITTER  
ROBERTA BASE SENTIMENT



# DATA PROCESSING

## REVIEW:

The A9+ is a good general use product. It doesn't have a high res screen with OLED or 120Hz, but it gets the job done. I really appreciated the headphone jack and MicroSD card slot. However, I wish it had a fingerprint reader and front-facing speakers. The screen is sharp at this size but it dims noticeably off angle..



# DATA PROCESSING

## CATEGORIES

1. **Ergonomics**
2. **Build Quality**
3. **Portability**
4. **Display**
5. **Performance**
6. **Connectivity**
7. **Audio**
8. **Cost**

## REVIEW:

The A9+ is a good general use product. It doesn't have a high res screen with OLED or 120Hz, but it gets the job done. I really appreciated the headphone jack and MicroSD card slot. However, I wish it had a fingerprint reader and front-facing speakers. The screen is sharp at this size but it dims noticeably off angle.

## SENTIMENT:

Positive :)

# DATA PROCESSING

## REVIEW:

The A9+ is a good general use product. It doesn't have a high res screen with OLED or 120Hz, but it gets the job done. I really appreciated the headphone jack and MicroSD card slot. However, I wish it had a fingerprint reader and front-facing speakers. The screen is sharp at this size but it dims noticeably off angle.

## CLASSIFICATIONS:

Display Related

Connectivity Related

Audio Related

## SENTIMENT:

Positive

# DATA PROCESSING

## CLASSIFICATIONS:

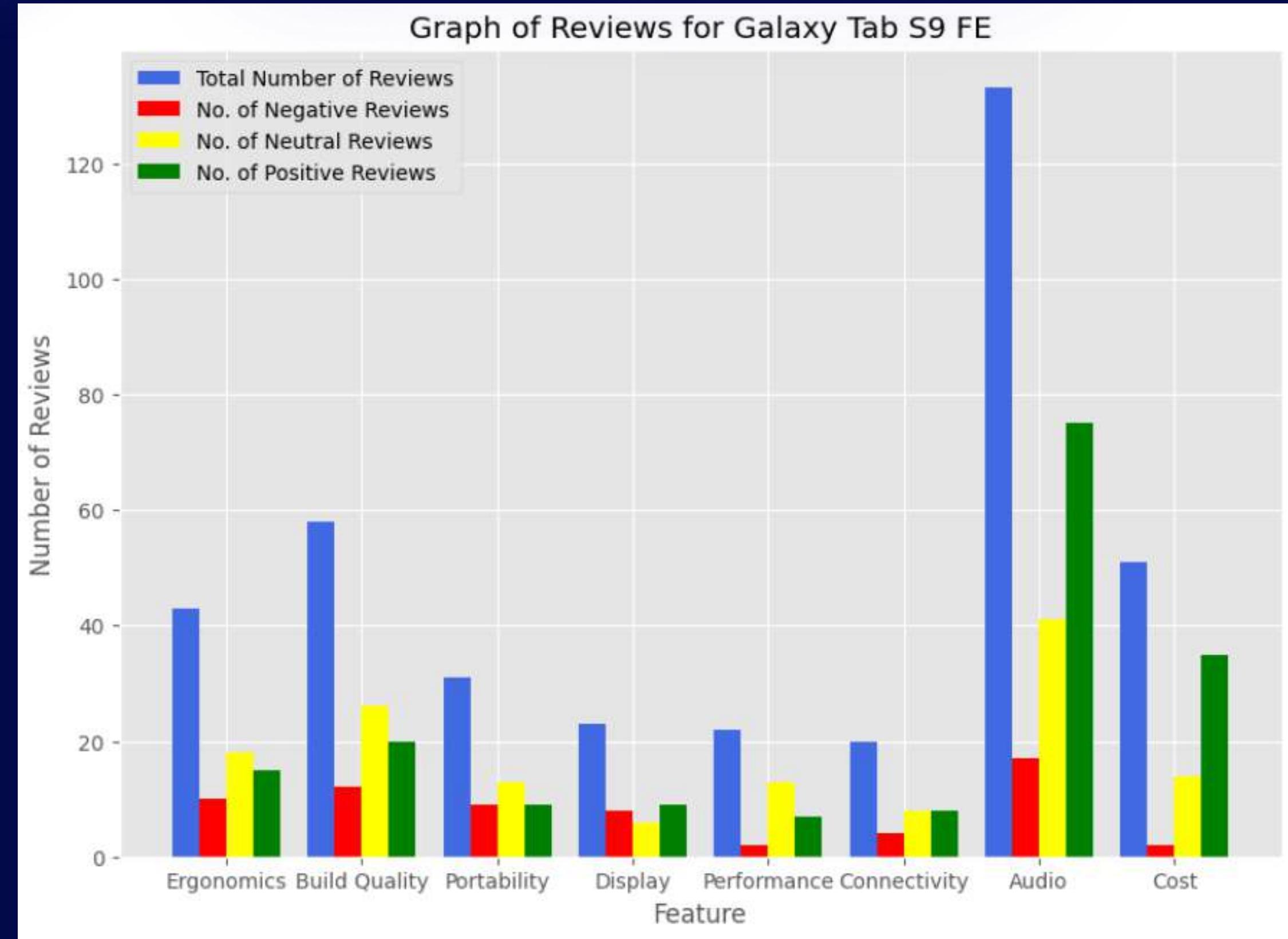
Display Related

Connectivity Related

Audio Related

## SENTIMENT:

Positive



# DATA PROCESSING

## CLASSIFICATIONS:

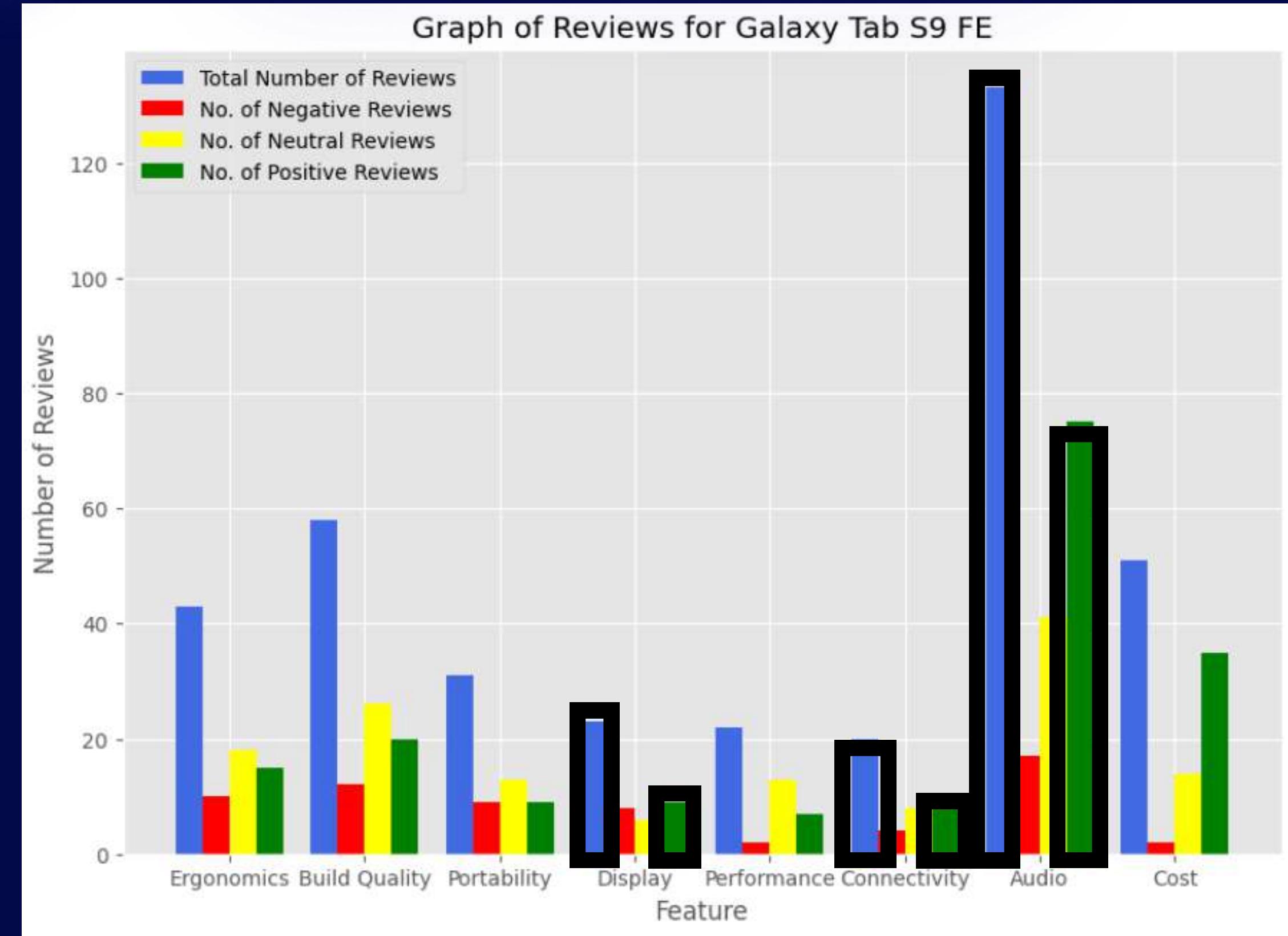
Display Related

Connectivity Related

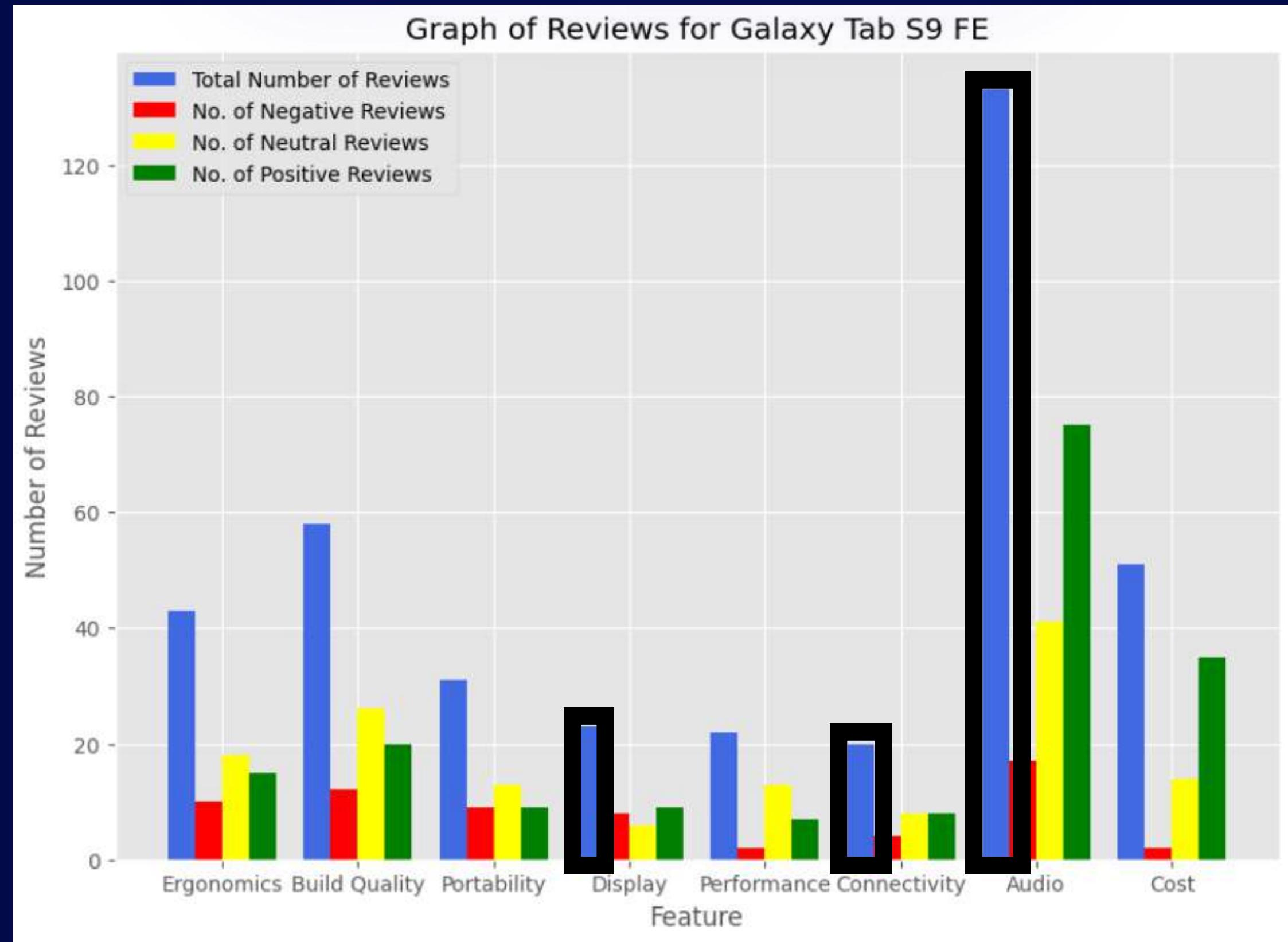
Audio Related

## SENTIMENT:

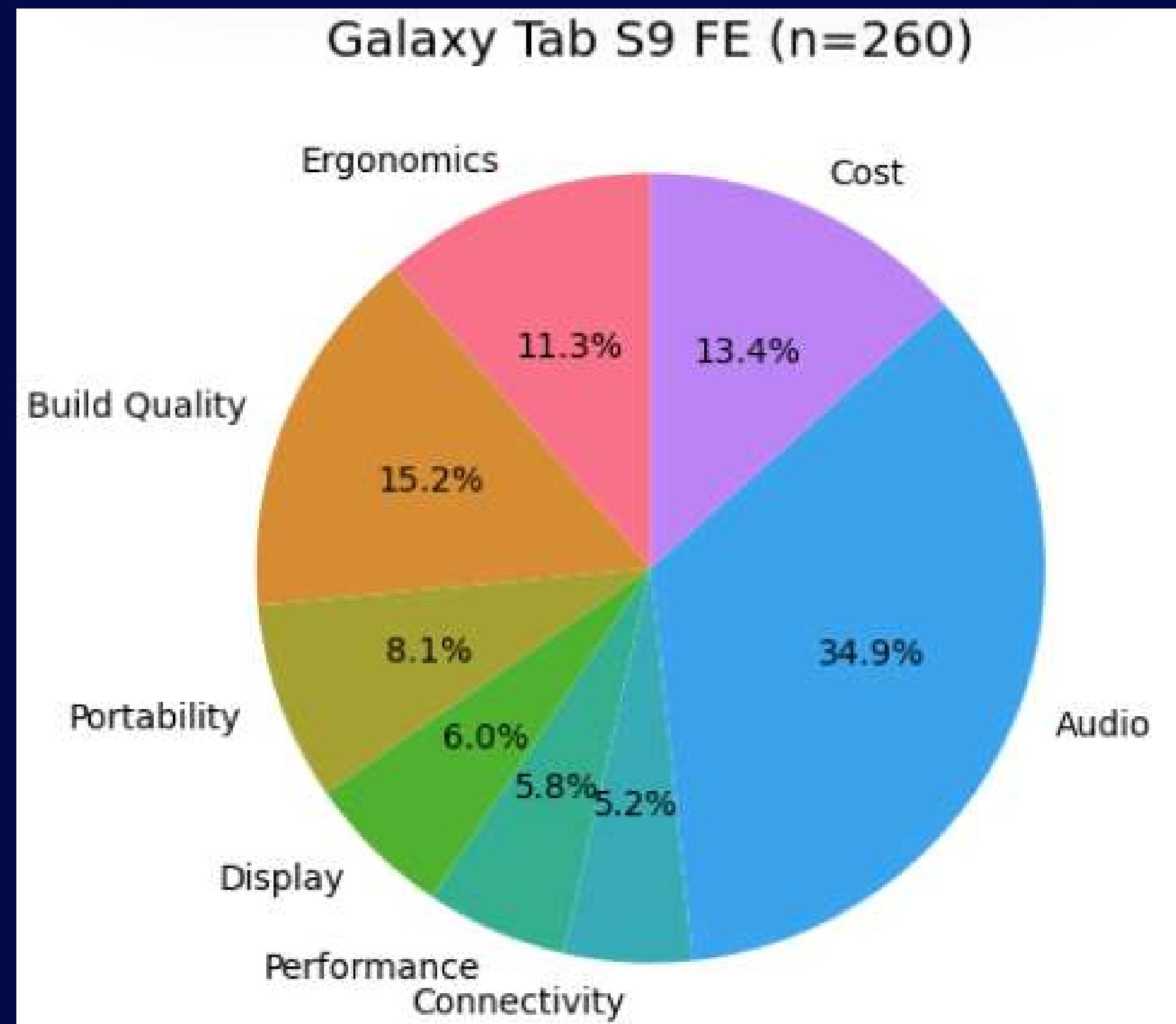
Positive



# DATA PROCESSING



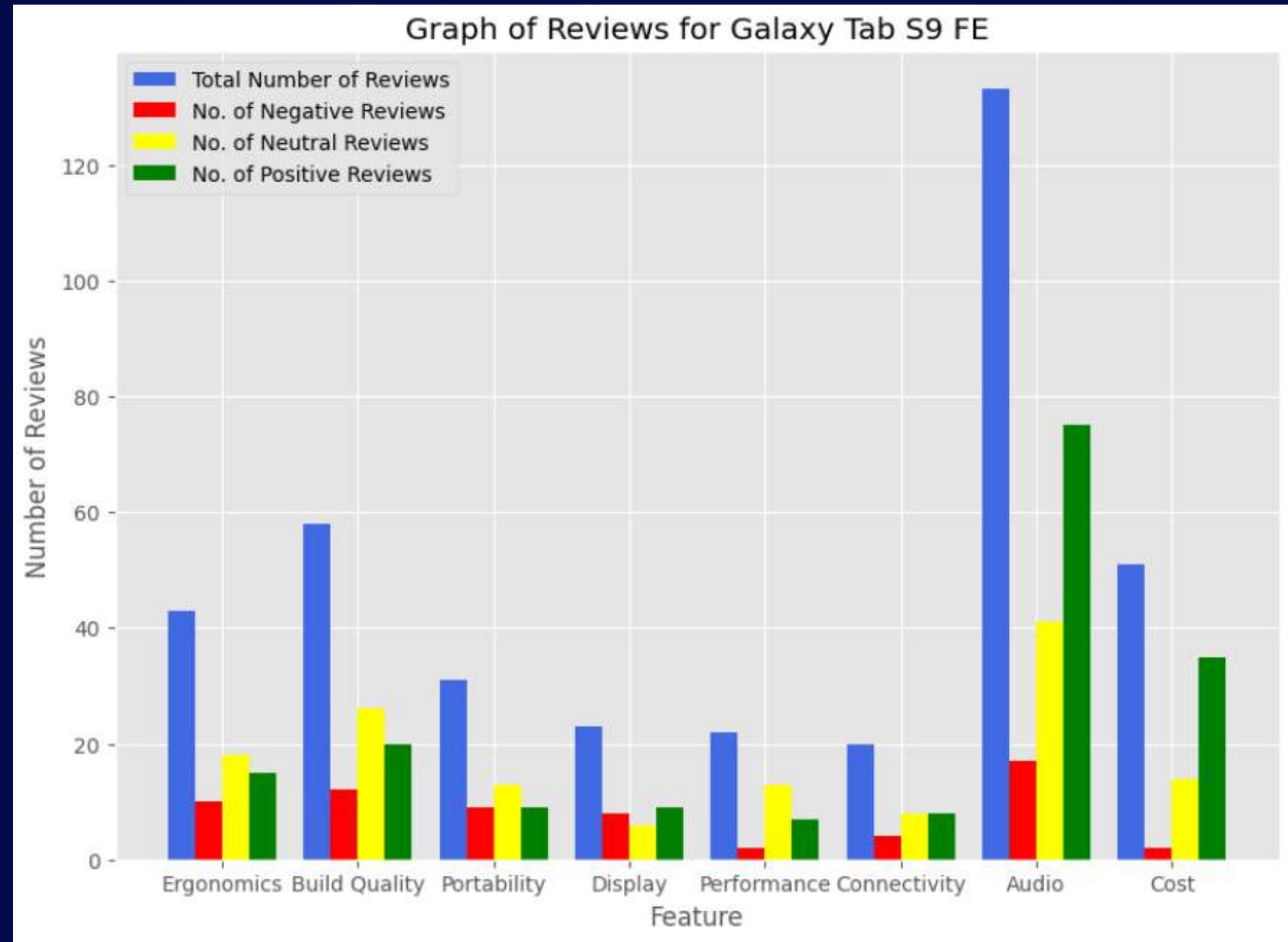
# DATA PROCESSING



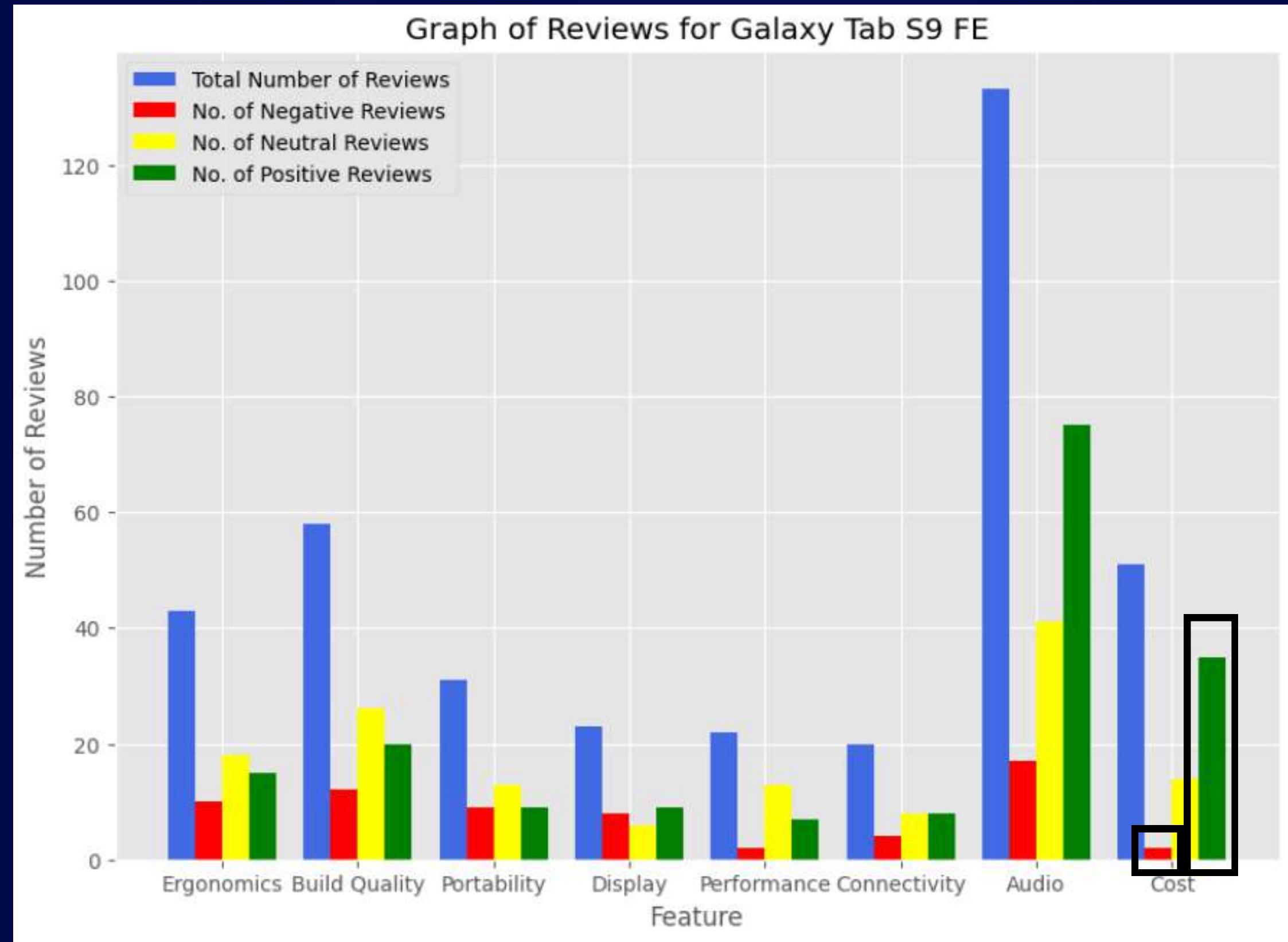
# DATA PROCESSING



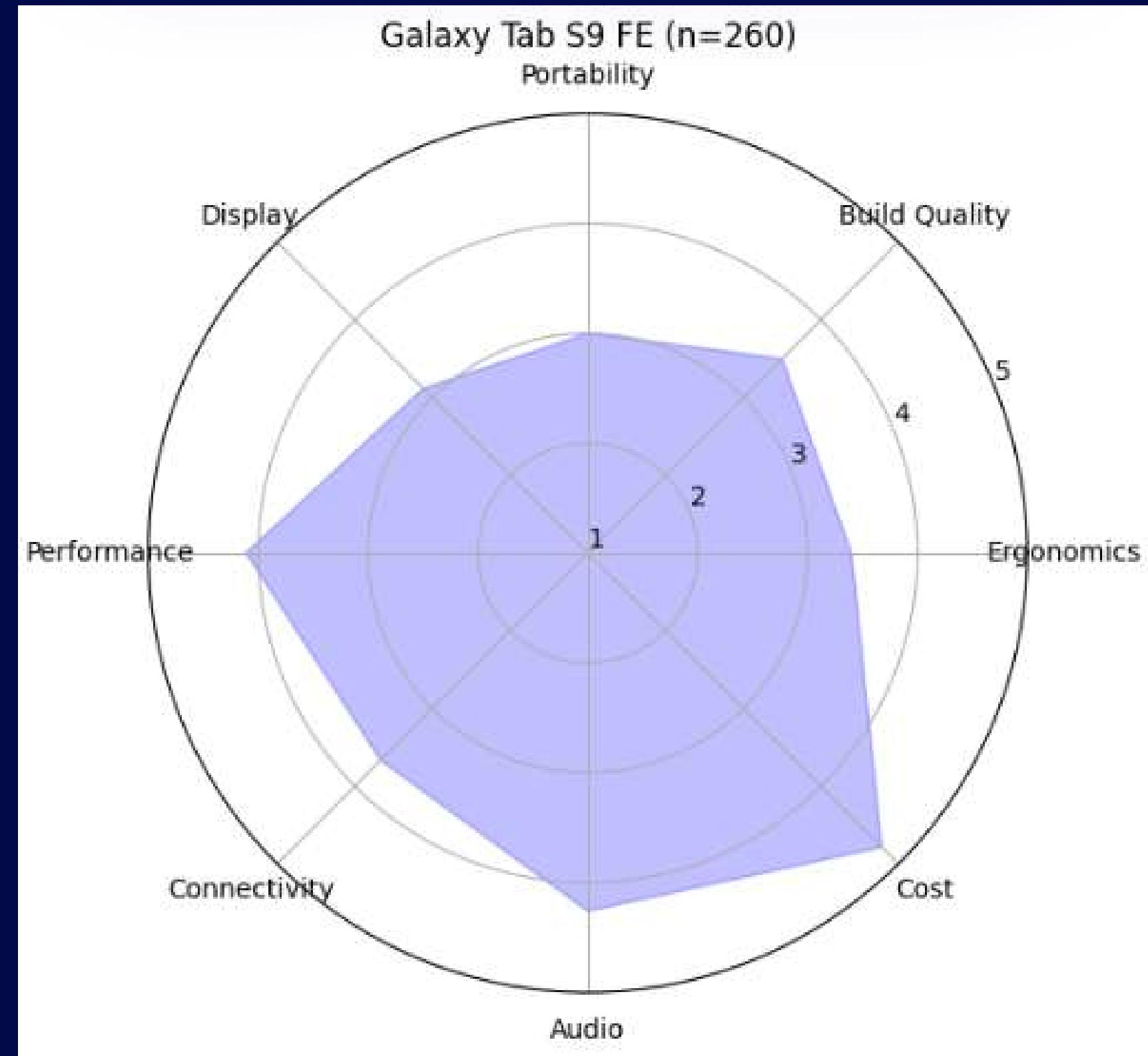
# DATA PROCESSING



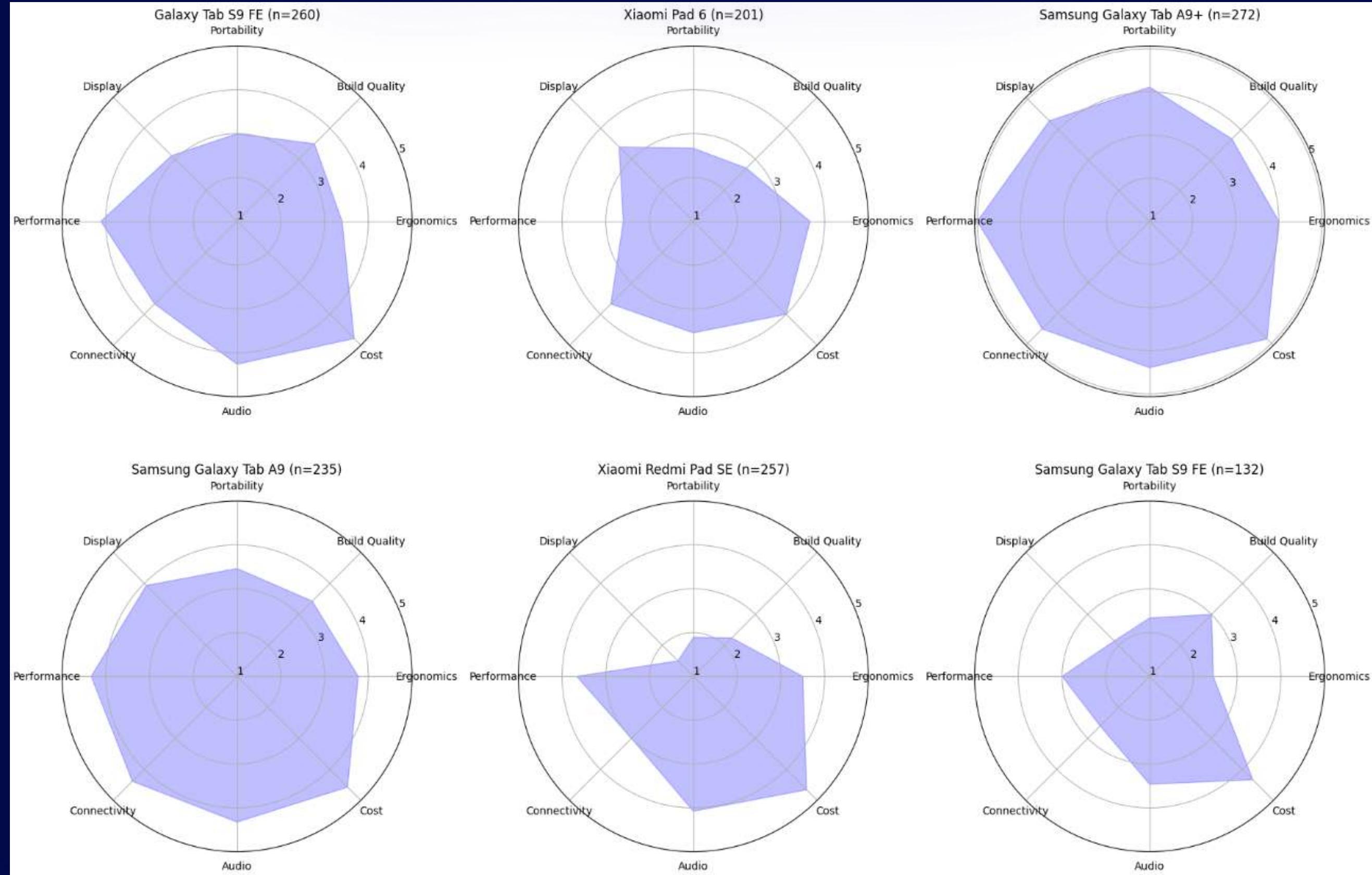
# DATA PROCESSING



# DATA PROCESSING



# DATA PROCESSING



# RETRIEVAL AUGMENTED GENERATION (RAG)

Variables
Name of 6 Tablet Models

Amazon Reviews (Cleaned)
--------------------------

```
question = f"What are 3 pros and 3 cons of the {products[i]}? Provide an overall summary of the {products[i]}." # input question
template = "If the review does not mention it, state 'It was not mentioned'."
context = f"The text is from the amazon reviews and comments of youtube videos that reviewed the {products[i]}"
```

Youtube Comments (Cleaned)
----------------------------

--Galaxy Tab S9 FE--  
Based on the provided text, here are three pros and three cons of the Galaxy Tab S9 FE, along with an overall summary:

**Pros:**

- Display Quality:** The Tab S9 FE is noted for having a stellar display, comparable to high-quality devices like the iPad Air 5th gen and the Tab S8.
- Optimization:** The 8GB and 256GB configuration is recommended for optimal performance with OneUI, suggesting good software and hardware integration.
- Accessories:** There are specific mentions of available accessories like the Book Cover Keyboard, which can enhance usability.

**Cons:**

- Android Version Issues:** There is a mention of the device running Android 13 with no available update to Android 14, which could be a downside for users looking for the latest operating system.
- Price Concerns:** There is a question about whether the additional cost of the Tab S9 over the S9 FE Plus is justified, indicating concerns about value for money.
- Potential Longevity Issues:** A user questioned whether the 6GB variant might encounter problems in the long run, suggesting potential concerns about future-proofing and performance degradation.

**Overall Summary:** The Galaxy Tab S9 FE appears to be a solid device with a high-quality display and good performance, especially in the recommended 8GB/256GB configuration. It supports useful accessories that can enhance its functionality. However, there are concerns about the software updates and whether the price point is justified compared to other models. Additionally, there might be concerns about the long-term performance of lower-spec variants. Overall, the Tab S9 FE seems to be a capable tablet with specific strengths and a few potential drawbacks to consider.

**Note:** Some aspects like speaker quality and suitability for specific tasks like music production were mentioned but not detailed enough to conclusively list as pros or cons.

Youtube Captions (Cleaned)
----------------------------

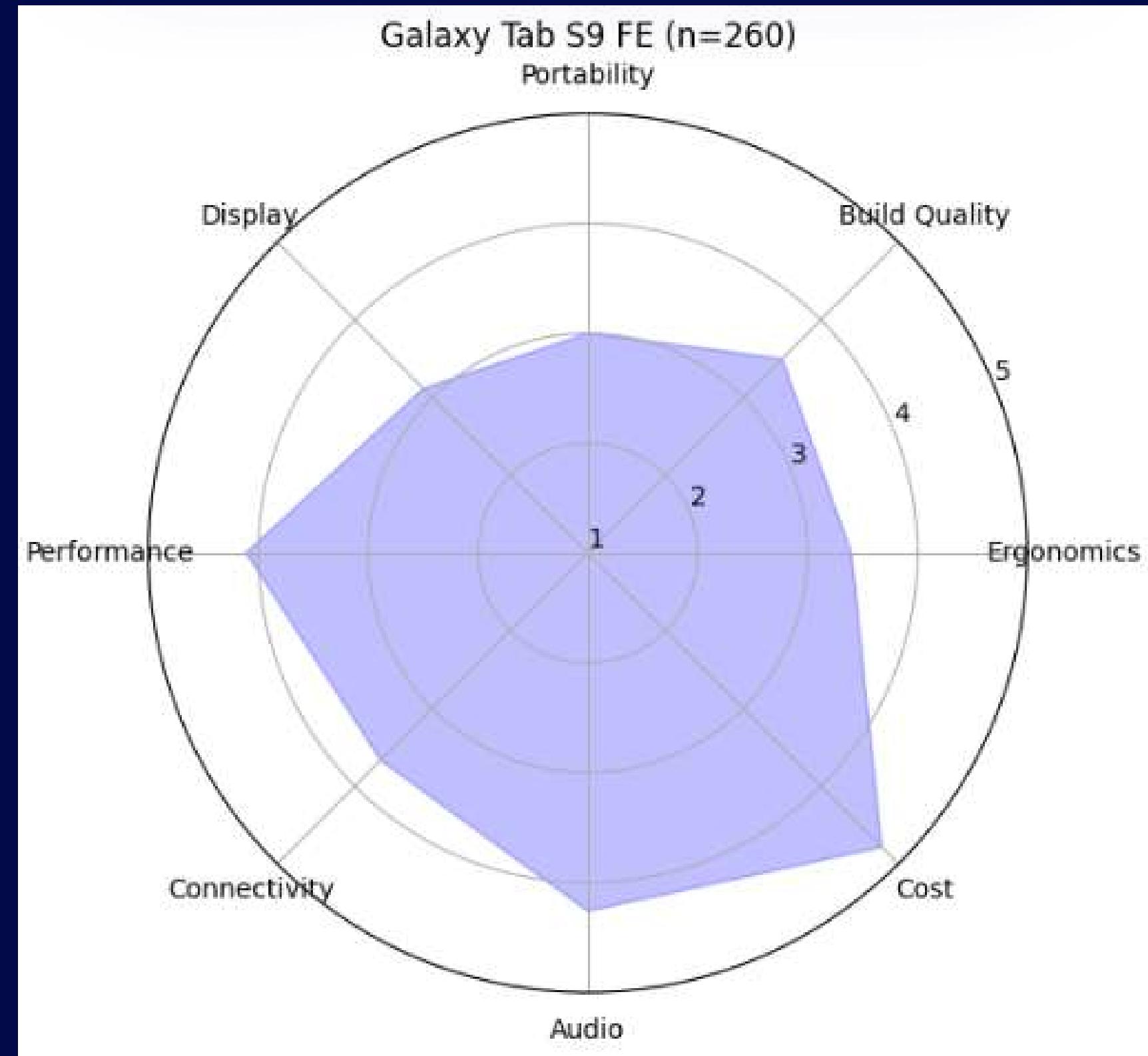
# RETRIEVAL AUGMENTED GENERATION (RAG)

Variables
Name of 6 Tablet Models
Amazon Reviews (Cleaned)
Youtube Comments (Cleaned)
Youtube Captions (Cleaned)

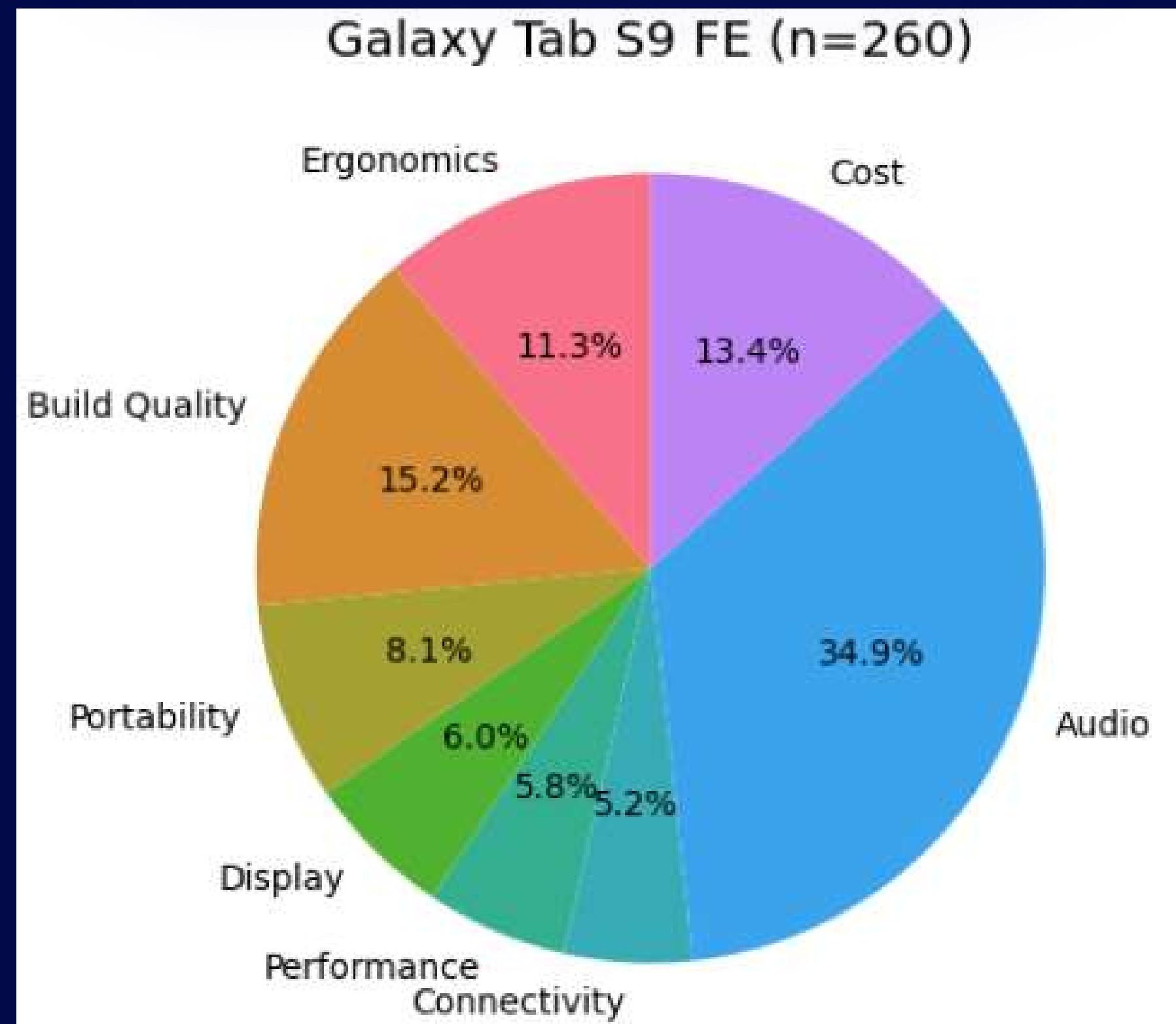
```
question = f"What are 3 pros and 3 cons of the {products[i]}? Provide an overall summary of the {products[i]}." # input question  
template = "If the review does not mention it, state 'It was not mentioned'."  
context = f"The text is from the amazon reviews and comments of youtube videos that reviewed the {products[i]}"
```

--Galaxy Tab S9 FE--  
Based on the provided text, here are  
**Pros:**  
1. **Display Quality:** The Tab S9 FE  
2. **Optimization:** The 8GB and 25  
integration.  
3. **Accessories:** There are specific  
**Cons:**  
1. **Android Version Issues:** There  
users looking for the latest ope  
2. **Price Concerns:** There is a que  
money.  
3. **Potential Longevity Issues:** A  
future-proofing and performan

# DATA PROCESSING



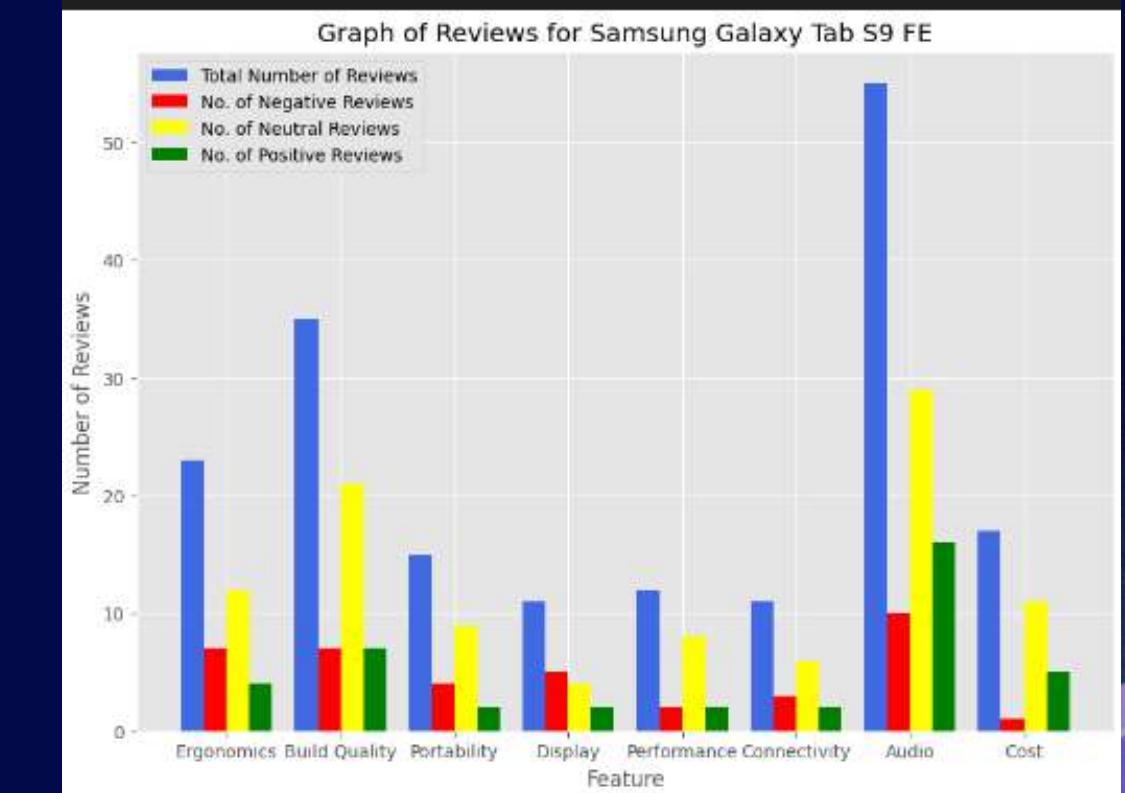
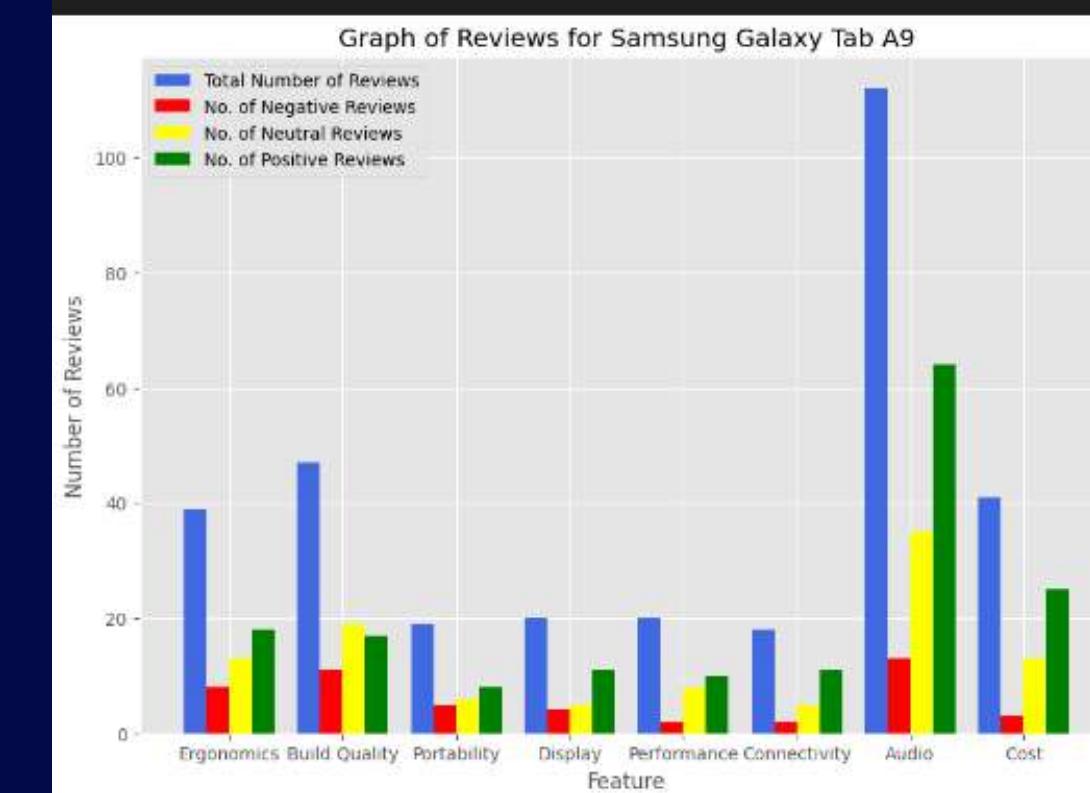
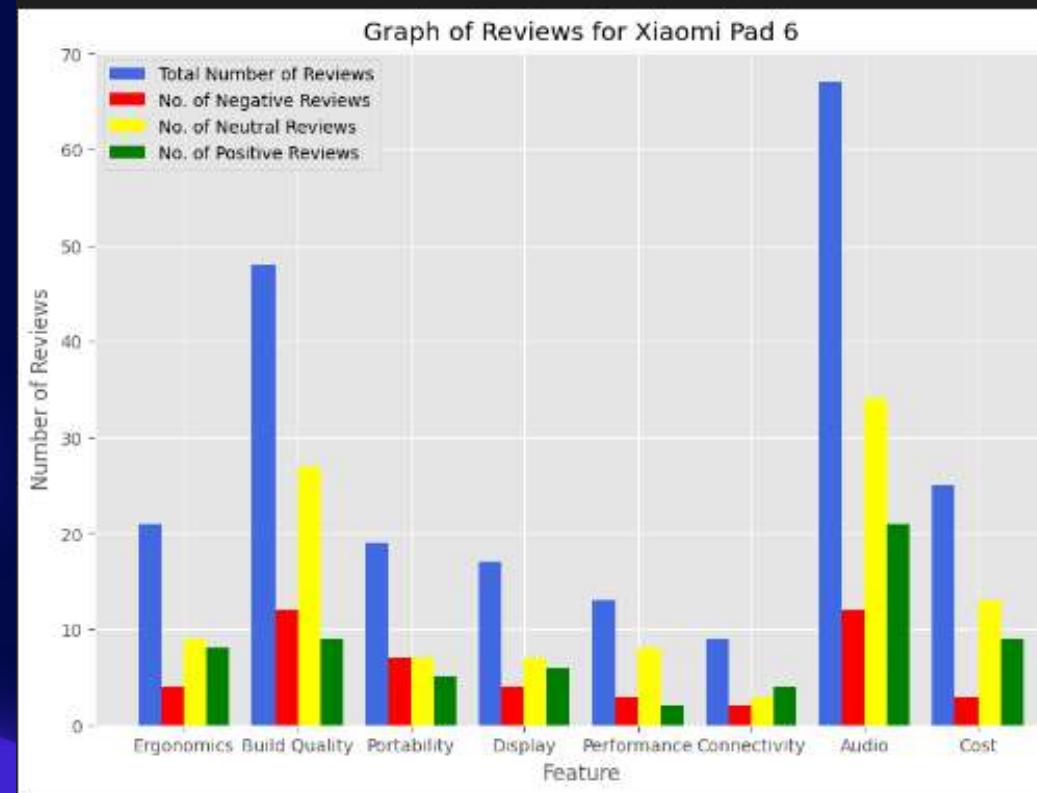
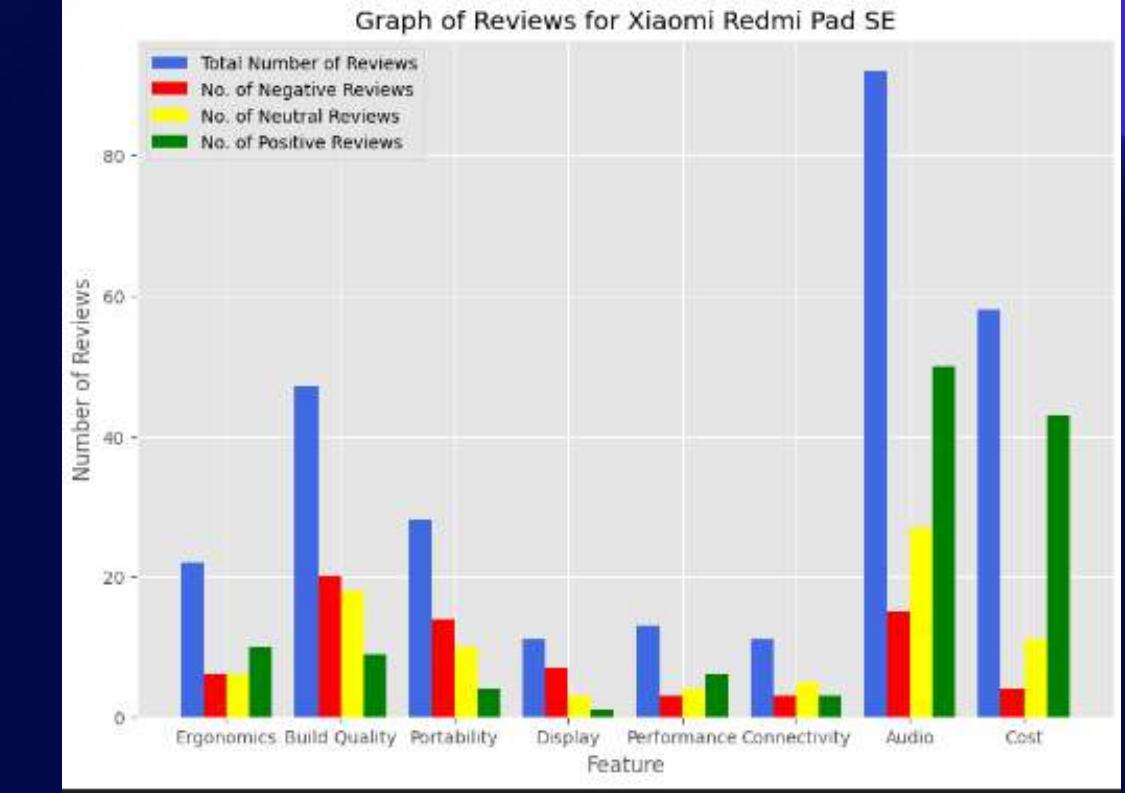
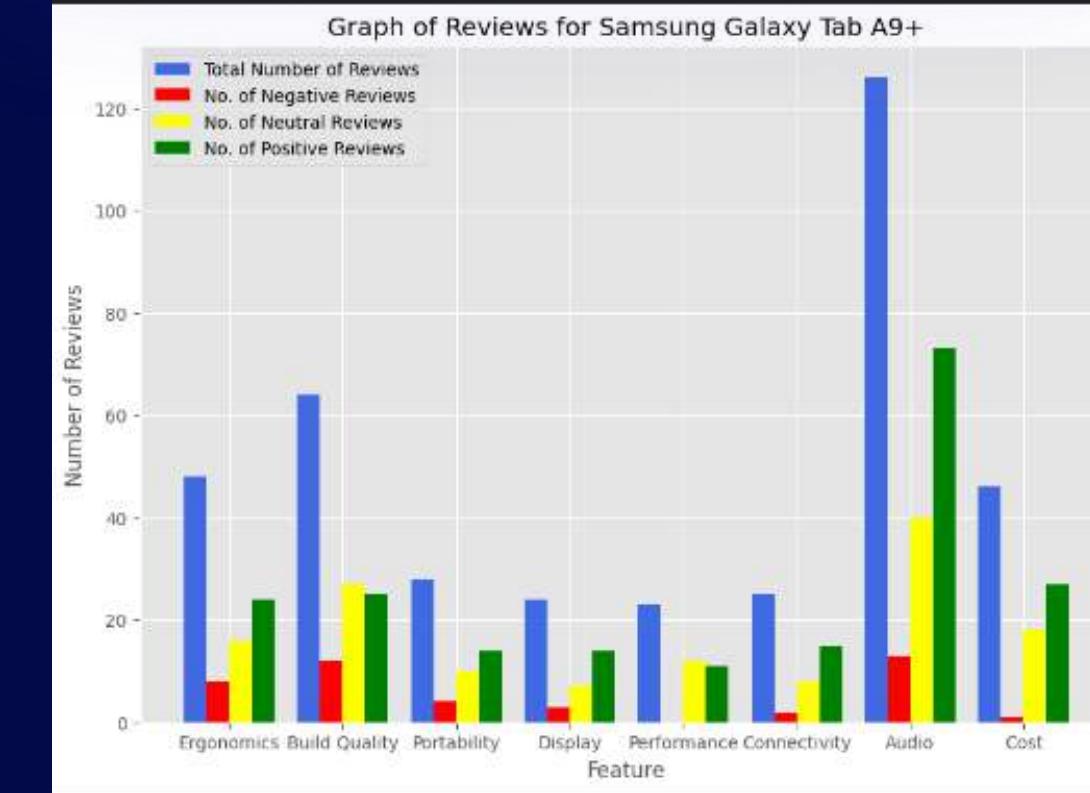
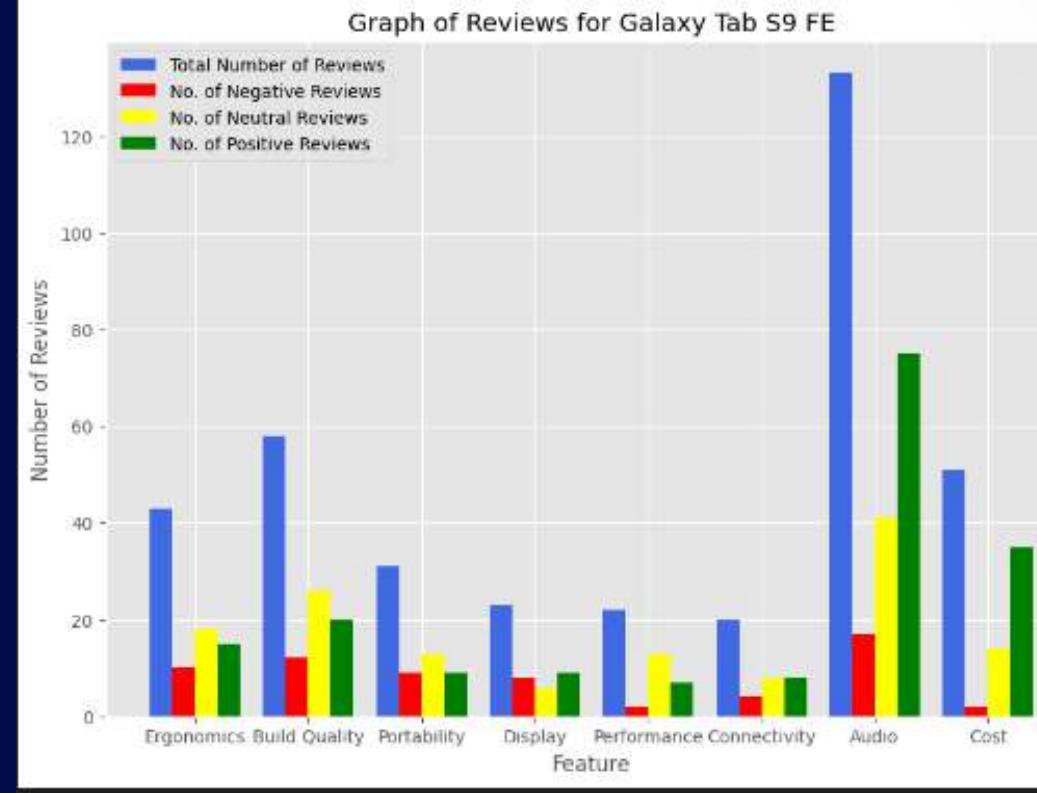
# DATA PROCESSING



# BENCHMARKING



# BENCHMARKING



# BENCHMARKING

Comment/Review	AI Sentence	Human Sentence	AI Categories	Human Verified	total score	score
Does the exynos chip effect the performance	1	1	Ergonomics Related, Build Quality Related, Portability Related, Display Related,	1	8	0.125
I am old Samsung user and can say samsung better on screen	2	2	NOT Ergonomics Related, NOT Build Related Quality, Portability Related, Display Related	4	8	0.5
always enjoy your content Is the S9 really that big of a difference	2	2	Ergonomics Related, NOT Build Related Quality, Portability Related, Display Related	3	8	0.375
The way you said AKG is so hot I bet your wife must be so pr	2	2	Ergonomics Related, Build Quality Related, Portability Related, Display Related,	1	8	0.125
2300 today 5 days after the Review	1	1	Ergonomics Related, Build Quality Related, Portability Related, Display Related,	0	8	0
I didnt catch if this Pad 6 Pro is Global or not	1	1	Ergonomics Related, Build Quality Related, Portability Related, Display Related,	0	8	0
Should I use a screen protector if i use a case	1	1	Ergonomics Related, Build Quality Related, Portability Related, Display Related,	0	8	0
Support b n2 ang LDAC and APTXhd bluetooth codec	1	1	Ergonomics Related, Build Quality Related, Portability Related, Display Related,	1	8	0.125
Keyboard will run for 23 years	1	1	Ergonomics Related, Build Quality Related, Portability Related, Display Related,	1	8	0.125
Can we play games using folio	1	1	Ergonomics Related, Build Quality Related, Portability Related, Display Related,	2	8	0.25
Im curious if it is any good for video editing and photoshop	1	1	NOT Ergonomics Related, NOT Build Related Quality, Portability Related, Display Related	3	8	0.375
bhai es ki display quality kashi ha kayuki es me tft display h	2	1	Ergonomics Related, NOT Build Related Quality, Portability Related, Display Related	2	8	0.25
The tablet acrobat of juggernauts in the flat in you hand wo	2	2	Ergonomics Related, Build Quality Related, Portability Related, NOT Display Related	7	8	0.875
I broke my iPad that my college gave me and can only find 1	2	2	Ergonomics Related, Build Quality Related, Portability Related, Display Related,	1	8	0.125
Can I use the banking app	1	1	Ergonomics Related, Build Quality Related, Portability Related, Display Related,	0	8	0
Hey people Stop bringing some other Android samples as ip	1	2	NOT Ergonomics Related, Build Quality Related, NOT Portability Related, Display Related	6	8	0.75
830 does that mean If I wanna present a seminar I prepared	1	1	Ergonomics Related, Build Quality Related, Portability Related, Display Related,	2	8	0.25
Just a question Is there good ecosystem feature i can have	1	1	Ergonomics Related, Build Quality Related, Portability Related, Display Related,	2	8	0.25
I wish I could buy the smallest version AND have 1TB storag	2	1	Ergonomics Related, Build Quality Related, Portability Related, Display Related,	2	8	0.25
I bought it for today	1	1	Ergonomics Related, Build Quality Related, Portability Related, Display Related,	0	8	0
made this reference for my child	1	1	Ergonomics Related, Build Quality Related, Portability Related, Display Related,	0	8	0
Its a shame I cant use a SIM card	0	0	Ergonomics Related, Build Quality Related, Portability Related, Display Related,	1	8	0.125
This tab was not lanch only dubai	1	0	NOT Ergonomics Related, NOT Build Related Quality, NOT Portability Related, Not Display Related	8	8	1
hello where did you found the stylus pen Is the model HX25	1	1	Ergonomics Related, Build Quality Related, Portability Related, Display Related,	1	8	0.125
Does Netflix have HD	1	1	Ergonomics Related, Build Quality Related, Portability Related, Display Related,	1	8	0.125
Does the exynos chip effect the performance	1	1	Ergonomics Related, Build Quality Related, Portability Related, Display Related,	1	8	0.125
Hi Im an incoming uni student and Im planning to buy a tab	1	1	NOT Ergonomics Related, Build Quality Related, Portability Related, Display Related	1	8	0.125
The way you said AKG is so hot I bet your wife must be so pr	2	2	Ergonomics Related, Build Quality Related, Portability Related, Display Related,	1	8	0.125
The comparison is as good as usual but it does not give the	1	1	NOT Ergonomics Related, NOT Build Related Quality, NOT Portability Related, Not Display Related	8	8	1
Meeeeeeeessiiiiii	2	2	Ergonomics Related, Build Quality Related, Portability Related, Display Related,	0	8	0
Accuracy (Correctly predicted)	0.86667					
Recall (Sensitivity to positive sentiment)	0.875			Average Score	0.25	
Precision	0.77778					

# BENCHMARKING

Accuracy (Correctly predicted)	0.86667
Recall (Sensitivity to positive sentiment)	0.875
Precision	0.77778



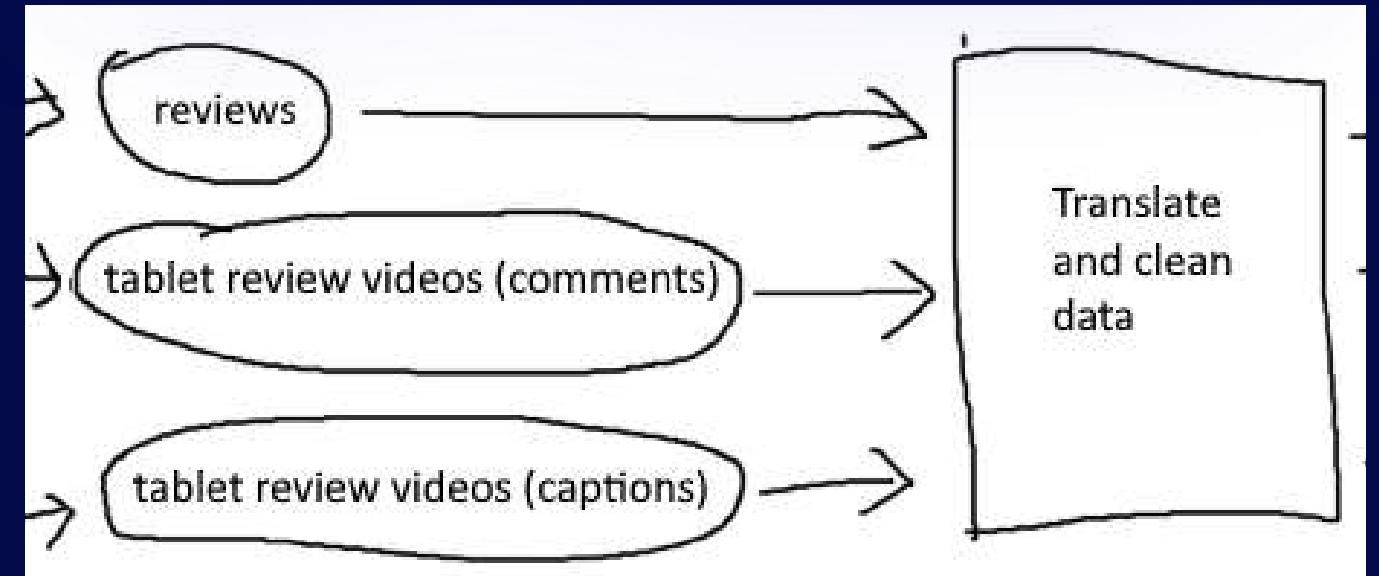
# BENCHMARKING

Average Score	0.25
---------------	------



# DATA CLEANING

Variables
Name of 6 Tablet Models
Amazon Reviews (Cleaned)
Youtube Comments (Cleaned)
Youtube Captions (Cleaned)



# BENCHMARKING

## REVIEW:

Hey people. Stop bringing some other Android samples as ipad killer whatever. This one got OLED display USB32 GEN1x1 Fantastic pen Best optimized for Android the best Snapdragon chip boosted SD8 Gen2 for Galaxy. Stop saying something else is better than this thang amongst Android tablets

## AI CLASSIFICATIONS:

NOT Ergonomics Related

~~Build Quality Related~~

NOT Portability Related

Display Related

Performance Related

~~Connectivity Related~~

NOT Audio Related

NOT Cost Related

## CORRECT CLASSIFICATIONS:

NOT Ergonomics Related

Build Quality Related

NOT Portability Related

Display Related

Performance Related

NOT Connectivity Related

NOT Audio Related

NOT Cost Related

**Score: 6/8**

# BENCHMARKING

## REVIEW:

The comparison is as good as usual but it does not give the appropriate importance to the RAM difference And I talk by experience. Having double the RAM make a huge difference in terms of apps and tabs reloading and the 4GB on the iPad 10 dont make it in my opinion as futureproof as claimed. I have both a 4GB RAM iPad and a S7FE similar performance with 8GB RAM so I can see the RAM difference impact daily especially when having several tabs open in a browser.

## AI CLASSIFICATIONS:

- NOT Ergonomics Related
- NOT Build Related Quality
- NOT Portability Related
- NOT Display Related
- Performance Related
- NOT Connectivity Related
- NOT Audio Related
- NOT Cost Related



## CORRECT CLASSIFICATIONS:

- NOT Ergonomics Related
- NOT Build Related Quality
- NOT Portability Related
- NOT Display Related
- Performance Related
- NOT Connectivity Related
- NOT Audio Related
- NOT Cost Related

**Score: 8/8**

# BENCHMARKING

## REVIEW:

The way you said AKG is so hot I bet your wife must be so proud

### AI CLASSIFICATIONS:

Ergonomics Related



Build Related Quality



Portability Related



Display Related



Performance Related



Connectivity Related



Audio Related



NOT Cost Related

### CORRECT CLASSIFICATIONS:

NOT Ergonomics Related

NOT Build Related Quality

NOT Portability Related

NOT Display Related

NOT Performance Related

NOT Connectivity Related

NOT Audio Related

NOT Cost Related

**Score: 1/8**

# BENCHMARKING

## REVIEW:

Meeeeeeeessiiiiii

### AI CLASSIFICATIONS:

Ergonomics Related

Build Related Quality

Portability Related

Display Related

Performance Related

Connectivity Related

Audio Related

Cost Related

### CORRECT CLASSIFICATIONS:

Ergonomics Related

Build Related Quality

Portability Related

Display Related

Performance Related

Connectivity Related

Audio Related

Cost Related

**Score: 0/8**

# BENCHMARKING

```
big_final_list=[]
for i in range(len(products)):
    candidates = [
        ['Ergonomics Related', 'NOT Ergonomics Related'],
        ['Build Quality Related', 'NOT Build Related Quality'],
        ['Portability Related', 'NOT Portability Related'],
        ['Display Related', 'NOT Display Related'],
        ['Performance Related', 'NOT Performance Related'],
        ['Connectivity Related', 'NOT Connectivity Related'],
        ['Audio Related', 'NOT Audio Related'],
        ['Cost Related', 'NOT Cost Related']
    ]
    model = "facebook/bart-large-mnli" # default model
    # model = "MoritzLaurer/mDeBERTa-v3-base-mnli-xnli"
    classifier = pipeline("zero-shot-classification", model=model)
    ergr= classifier(comment_list[i], candidate_labels=candidates[0])
    qltr= classifier(comment_list[i], candidate_labels=candidates[1])
    prtr= classifier(comment_list[i], candidate_labels=candidates[2])
    disr= classifier(comment_list[i], candidate_labels=candidates[3])
    perr= classifier(comment_list[i], candidate_labels=candidates[4])
    conr= classifier(comment_list[i], candidate_labels=candidates[5])
    audr= classifier(comment_list[i], candidate_labels=candidates[6])
    cstr= classifier(comment_list[i], candidate_labels=candidates[7])
    final_list=[ergr,qltr,prtr,disr,perr,conr,audr,cstr]
    for listss in final_list:
        for itemno in range(len(listss)):
            listss[itemno]['score']=results[i][itemno]['score']
            listss[itemno]['label']=results[i][itemno]['label']

    big_final_list.append(final_list)
    pickle.dump(final_list, open(f'{data_dir}/{products[i]}/final_list.pkl','wb'))

pickle.dump(big_final_list, open(f'{data_dir}/big_final_list.pkl','wb'))
```

# BENCHMARKING

 **Hugging Face**

Models Datasets Spaces Posts Docs Pricing Log In Sign Up

**Tasks** 1 Libraries Datasets Languages  
Licenses Other

Filter Tasks by name Reset Tasks

Multimodal

- Image-Text-to-Text
- Visual Question Answering
- Document Question Answering

Computer Vision

- Depth Estimation Image Classification
- Object Detection Image Segmentation
- Text-to-Image Image-to-Text
- Image-to-Image Image-to-Video
- Unconditional Image Generation
- Video Classification Text-to-Video
- Zero-Shot Image Classification
- Mask Generation
- Zero-Shot Object Detection Text-to-3D
- Image-to-3D Image Feature Extraction

Models 55,769 Filter by name

Full-text search Sort: Trending

-  **cardiffnlp/twitter-roberta-base-sentiment-latest**  
Text Classification • Updated May 28, 2023 • 22.2M • 382
-  **BAAI/bge-reranker-v2-m3**  
Text Classification • Updated 28 days ago • 64.5k • 38
-  **maidalun1020/bce-reranker-base\_v1**  
Text Classification • Updated 7 days ago • 15.3k • 90
-  **distilbert/distilbert-base-uncased-finetuned-sst-2-english**  
Text Classification • Updated Dec 20, 2023 • 8.68M • 450
-  **BAAI/bge-reranker-large**  
Text Classification • Updated 4 days ago • 321k • 213
-  **openbmb/Eurus-RM-7b**  
Text Classification • Updated 7 days ago • 938 • 13
-  **AkshatSuriolia/ICD-10-Code-Prediction**  
Text Classification • Updated May 5, 2023 • 21.3k • 32

# BENCHMARKING

The image displays two YouTube video thumbnails side-by-side, both centered around the topic of fine-tuning pretrained models.

**Top Video:**

- Title:** How to Fine-Tune and Train LLMs With Your Own Data EASILY and FAST With AutoTrain
- Channel:** WorldofAI
- Views:** 17K
- Published:** 7 months ago
- Description:** Welcome to our channel, where we delve into the cutting-edge realm of machine learning innovation! In this video, we're thrilled to ...
- Thumbnail Content:** A screenshot of the AutoTrain interface showing a dashboard with various configuration options like scheduler, optimizer, epochs, and batch size. The title "AUTO-TRAIN HOW TO FINE-TUNE WITH ANY MODEL!" is overlaid on the left.

**Bottom Video:**

- Title:** Tutorial 2- Fine Tuning Pretrained Model On Custom Dataset Using 😊 Transformer
- Channel:** Krish Naik
- Views:** 151K
- Published:** 2 years ago
- Description:** github: <https://github.com/krishnaik06/Huggingfacetransformer> In this tutorial, we will show you how to fine-tune a pretrained ...
- Thumbnail Content:** A portrait of a man with glasses and a beard, with the text "FINE-TUNING 😊 A PRETRAINED MODEL USING HUGGINGFACE TRANSFORMER" overlaid. A "SUBSCRIBE NOW!" button and social media links are at the bottom.

# BENCHMARKING

```
big_final_list=[]
for i in range(len(products)):
    candidates = [
        ['Ergonomics Related', 'NOT Ergonomics Related'],
        ['Build Quality Related', 'NOT Build Related Quality'],
        ['Portability Related', 'NOT Portability Related'],
        ['Display Related', 'NOT Display Related'],
        ['Performance Related', 'NOT Performance Related'],
        ['Connectivity Related', 'NOT Connectivity Related'],
        ...
    ]
    ergr= classifier(comment_list[i], candidate_labels=candidates[0])
    qltr= classifier(comment_list[i], candidate_labels=candidates[1])
    prtr= classifier(comment_list[i], candidate_labels=candidates[2])
    disr= classifier(comment_list[i], candidate_labels=candidates[3])
    perr= classifier(comment_list[i], candidate_labels=candidates[4])
    connr= classifier(comment_list[i], candidate_labels=candidates[5])
    audr= classifier(comment_list[i], candidate_labels=candidates[6])
    cstr= classifier(comment_list[i], candidate_labels=candidates[7])
    final_list=[ergr,qltr,prtr,disr,perr,connr,audr,cstr]
    for listss in final_list:
        for itemno in range(len(listss)):
            listss[itemno]['score']=results[i][itemno]['score']
            listss[itemno]['label']=results[i][itemno]['label']

    big_final_list.append(final_list)
    pickle.dump(final_list, open(f'{data_dir}/{products[i]}/final_list.pkl','wb'))

pickle.dump(big_final_list, open(f'{data_dir}/big_final_list.pkl','wb'))
```

97m 39.6s

# LIMITATIONS



# BENCHMARKING

## REVIEW:

Meeeeeeeessiiiiii

## AI CLASSIFICATIONS:

- Ergonomics Related
- Build Related Quality
- Portability Related
- Display Related
- Performance Related
- Connectivity Related
- Audio Related
- Cost Related

0/8

# TRANSLATION

Translate all data

```
for j in range(len(products)):
    for i in range(len(comment_list[j])):      # translate all
        try:
            comment_list[j][i] = GoogleTranslator(source='auto', target='en').translate(str(comment_list[j][i]))
        except:
            print("Exceeded 5000 characters.")
            print(comment_list[j][i])
```

Original Comment

Tempat saya beli semua barang di atas Link tablet Redmi Pad SE  
official terbatas Redmi Pad SE unofficial Keyboard mouse Case Tablet  
Redmi Pad SE unofficial

Translated Comment

Tempat saya beli semua barang di atas Link tablet Redmi Pad SE  
official terbatas Redmi Pad SE unofficial Keyboard mouse Case Tablet  
Redmi Pad SE unofficial

# CAPTCHA

https://www.amazon.com/SAMSUNG-Dust-Resistant-Powerful-Processor-Lightweight/product-reviews/B0CCX11JT6/ref=cm\_cr\_arp\_d\_paging\_btm\_next\_2?ie=UTF8&reviewerType=all\_reviews&pageNumber=2

The screenshot shows an Amazon CAPTCHA challenge. At the top, the Amazon logo is visible. Below it, a box contains instructions: "Enter the characters you see below" followed by a note: "Sorry, we just need to make sure you're not a robot. For best results, please make sure your browser is accepting cookies." A text input field displays the characters "XJAYRL". Below the input field is a link "Try different image". A yellow "Continue shopping" button is at the bottom.

amazon

Enter the characters you see below  
Sorry, we just need to make sure you're not a  
robot. For best results, please make sure your  
browser is accepting cookies.

Type the characters you see in  
this image:

XJAYRL

Try different image

Type characters

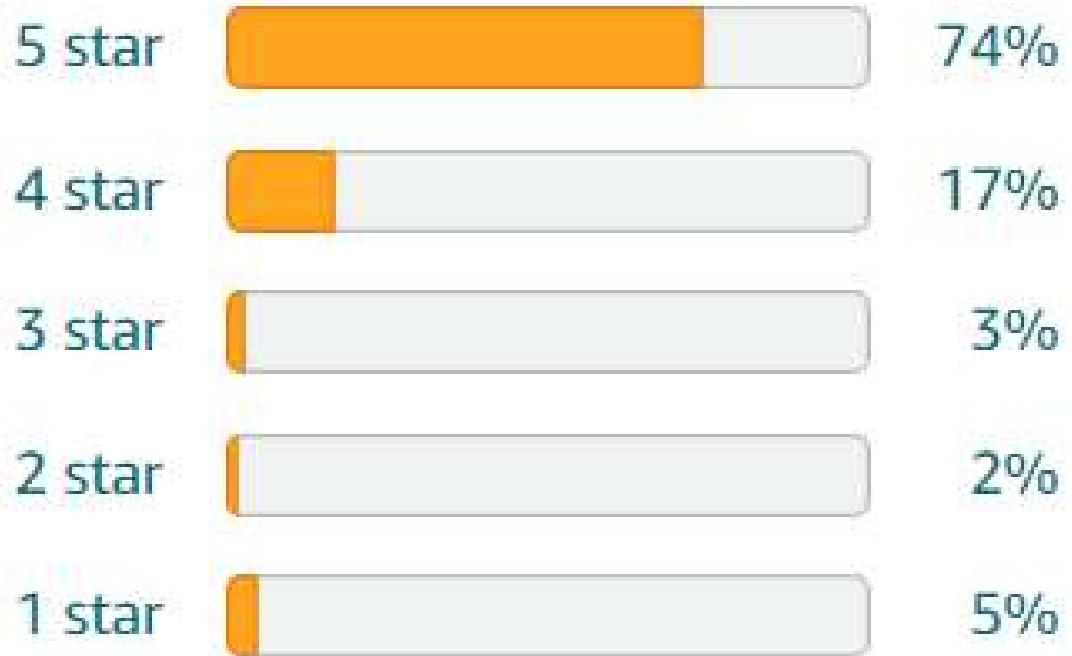
Continue shopping

# SAMPLE SIZE

## Customer reviews

★★★★★ 4.5 out of 5

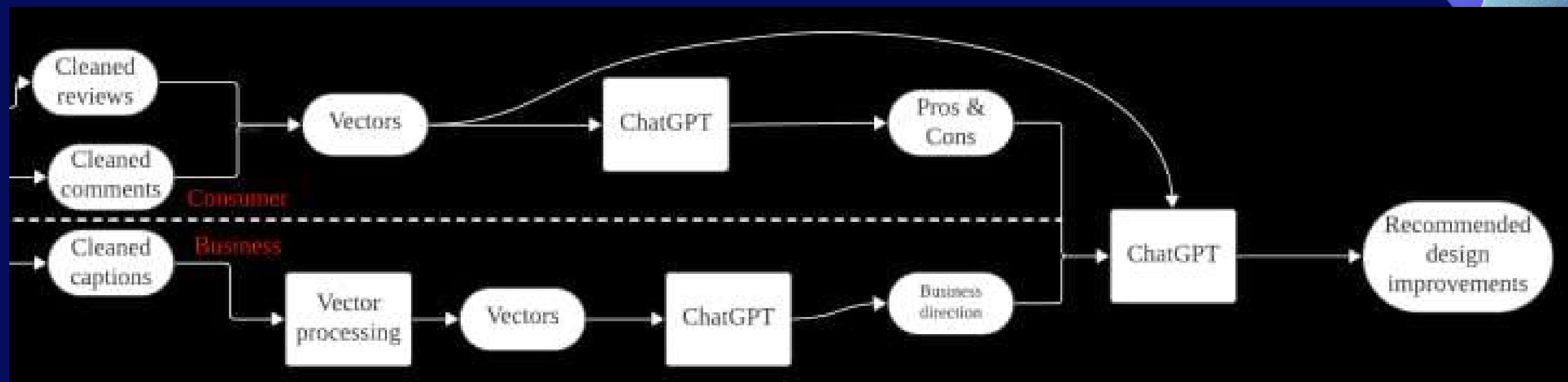
192 global ratings



< Previous page

Next page >

# RAG DATA SOURCES



# RAG DATA SOURCES

source documents of business direction:

page\_content='August we got acquainted with the Galaxy Tab S9 series, with the S9 Ultra model showcasing the best Samsung has to offer in the premium Android tablet segment, and now it's time to meet the Galaxy Tab S9 FE - Fan Edition, the less extravagant alternative proposed to consumers with "normal" budgets and more moderate expectations. Being initially for a lower budget, Samsung has prepared the Galaxy Tab S9 FE in only two variants, FE and FE+, leaving the "behemoth" Tab S9 Ultra as a go-to solution' metadata={'source': 'data/galaxy tab s9 fe\Galaxy Tab S9 FE\captions.txt'}

page\_content="with its OLED screen and Snapdragon 8 Gen 2, and significantly pricier, remains the obvious choice. And now, let me know in the comments section: what do you think of the Galaxy Tab S9 FE? And while you're here, please subscribe to Techniquilities! Take care and good luck to you all!okay so I've made a short on this and I've made videos about these Monster tablets in the past and every single time people get really into them and I'm really into them but the question that always keeps coming up" metadata={'source': 'data/galaxy tab s9 fe\Galaxy Tab S9 FE\captions.txt'}

# RAG DATA SOURCES

source documents of pros and cons:

page\_content='<<< Whats up everyone I hope this comparison of the Tab S9 FE and the Tab S9 FE was helpful Did I cover what you wanted to know What else did you want to see or learn about Download the Best Buy app now for great deals a portion of this video is sponsored by Best Buy TAB S9 FE Buy the Tab S9 FE affiliate Buy the Tab S9 FE Book Cover Keyboard affiliate Buy the Tab S9 FE Book Cover Keyboard Slim affiliate TAB S9 FE Buy the Tab S9 FE affiliate Buy the Tab S9 FE Book Cover Keyboard affiliate Buy the' metadata={'source': 'data/galaxy tab s9 fe\\Samsung Galaxy Tab S9 FE\\ragcom.txt'}

# RAG DATA SOURCES

```
from langchain.text_splitter import RecursiveCharacterTextSplitter

text_splitter = RecursiveCharacterTextSplitter(chunk_size=500, chunk_overlap=50)
splits = text_splitter.split_documents(document)
```

```
qa_chain = RetrievalQA.from_chain_type(
    llm,
    retriever=vectordb.as_retriever(search_type="mmr", search_kwargs={"k": 4, "fetch_k": 6}),
    # retriever=vectordb.as_retriever(search_type="similarity", search_kwargs={"k": 4}),
    # retriever=vectordb.as_retriever(),
    return_source_documents=True
```

# RAG DATA SOURCES

## Billing

[Overview](#)

[Payment methods](#)

[Billing history](#)

[Preferences](#)

### Pay as you go

Credit balance  ⓘ

\$4.07

# FUTURE IMPROVEMENTS



# FUTURE IMPROVEMENTS



## CONSUMERS

Consumer opinion of the tablet

Source: Youtube Comments, Amazon Reviews

## TECH SAVVY CONSUMERS

Product reviewers with more in-depth knowledge on the tech industry

Source: Youtube Content Creators

## SPECIFICATIONS

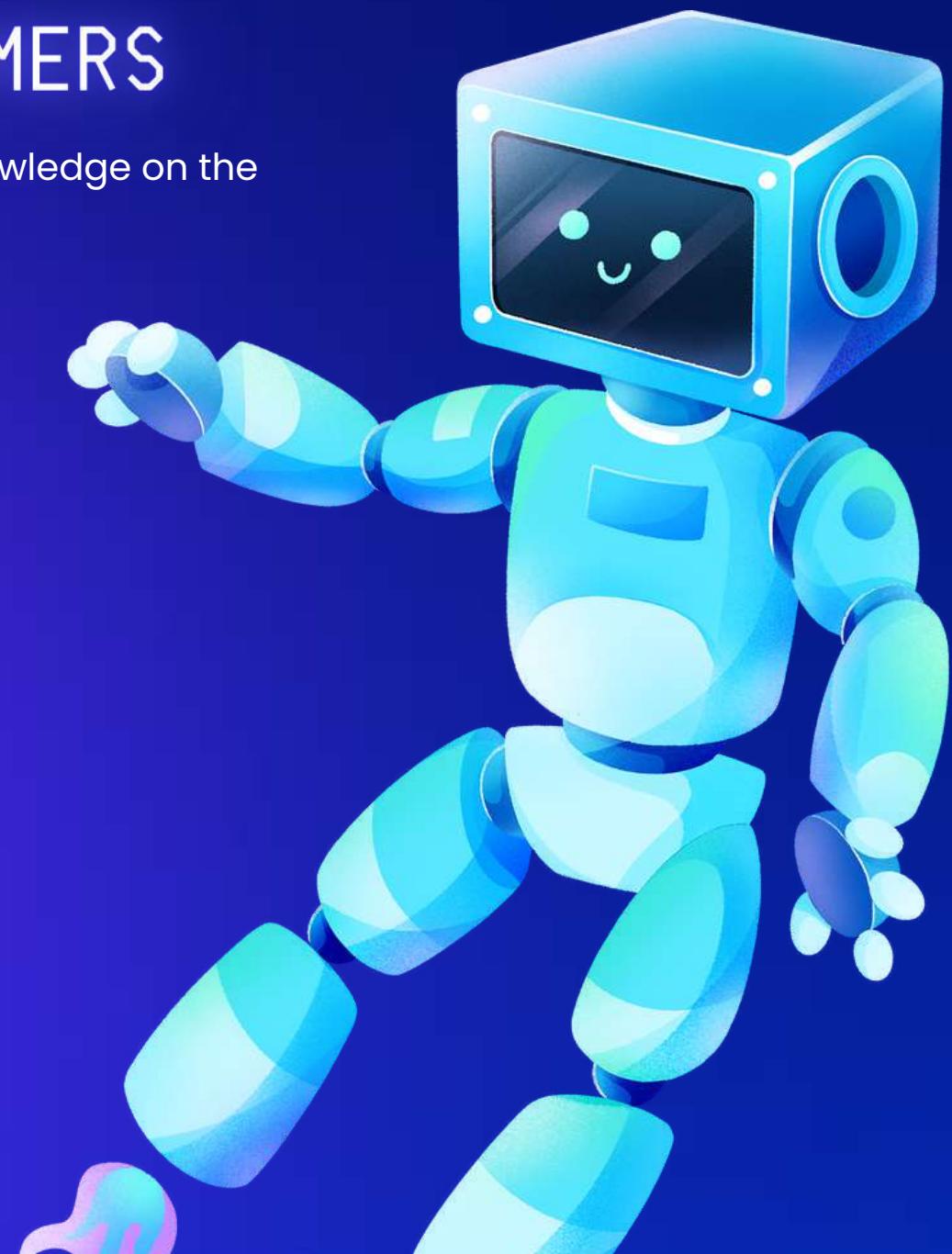
Tablet model and specifications

Source: GSMArena

## BUSINESS

Decision making and business direction

Source: News, Patents, Technical Support



# FUTURE IMPROVEMENTS



## CONSUMERS

Consumer opinion of the tablet

Source: Youtube Comments, Amazon Reviews

## TECH SAVVY CONSUMERS

Product reviewers with more in-depth knowledge on the tech industry

Source: Youtube Content Creators

## SPECIFICATIONS

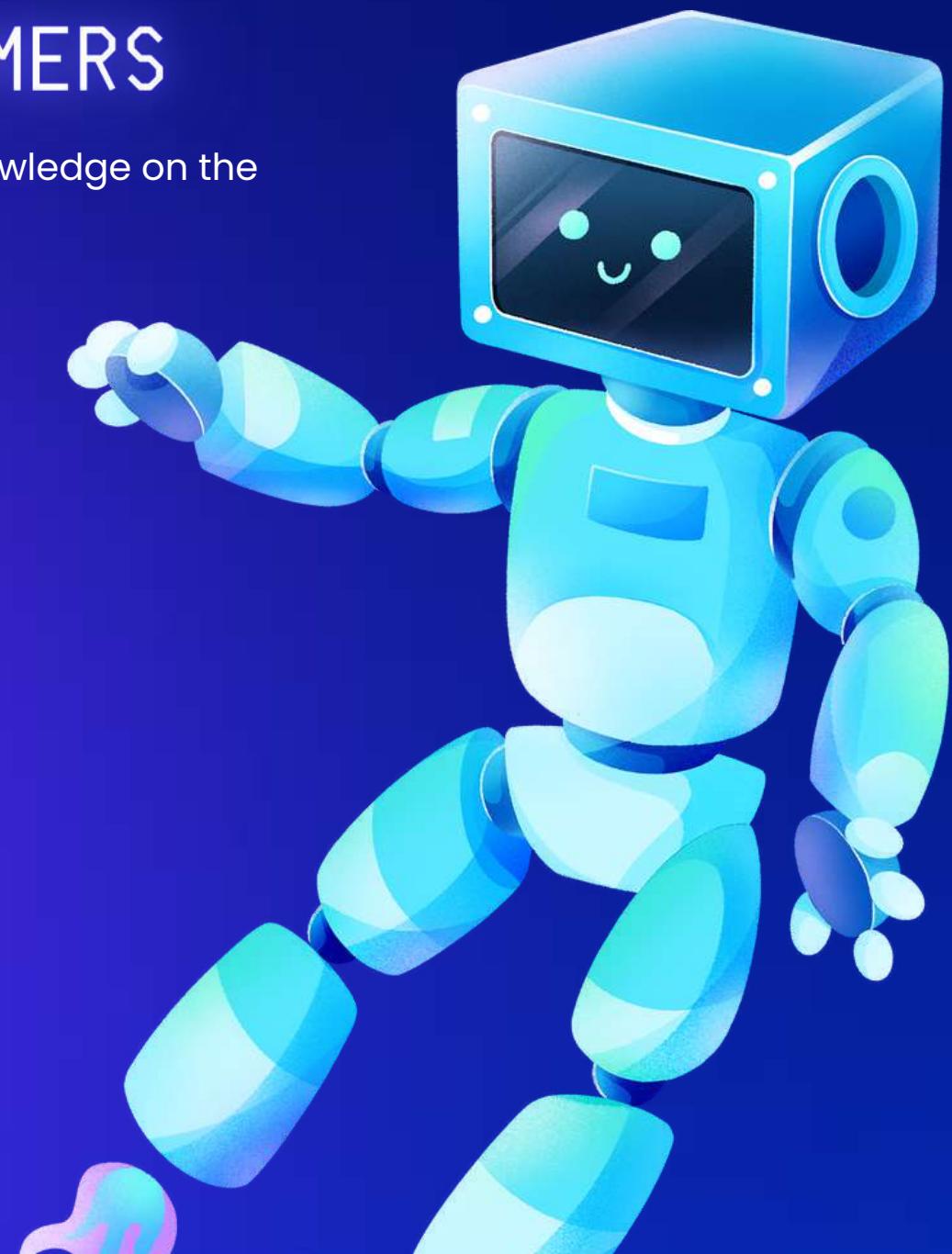
Tablet model and specifications

Source: GSMArena

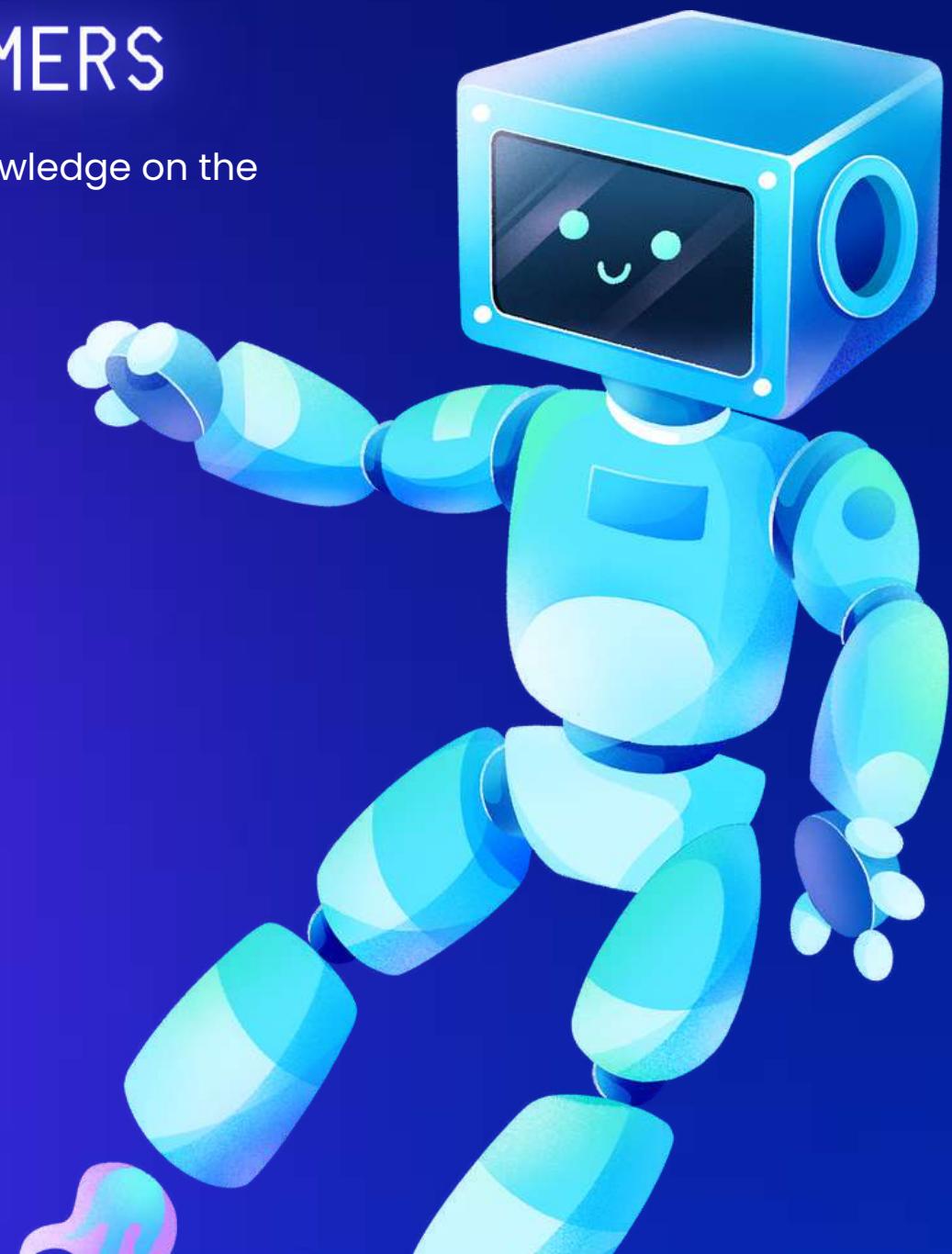
## BUSINESS

Decision making and business direction

Source: News, Patents, Technical Support



# FUTURE IMPROVEMENTS



# FUTURE IMPROVEMENTS



## CONSUMERS

Consumer opinion of the tablet

Source: Youtube Comments, Amazon Reviews

## TECH SAVVY CONSUMERS

Product reviewers with more in-depth knowledge on the tech industry

Source: Youtube Content Creators

## SPECIFICATIONS

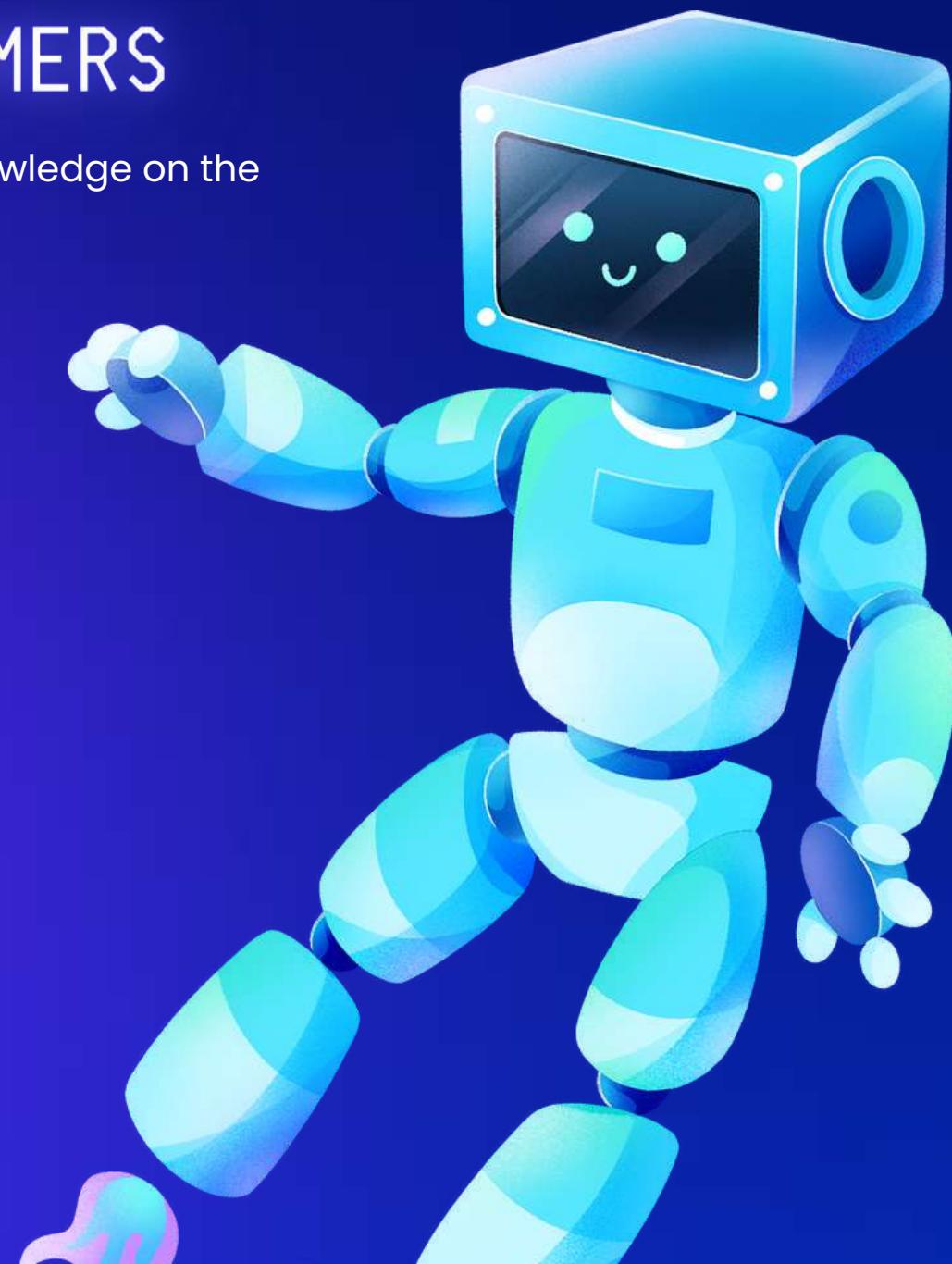
Tablet model and specifications

Source: GSMArena

## BUSINESS

Decision making and business direction

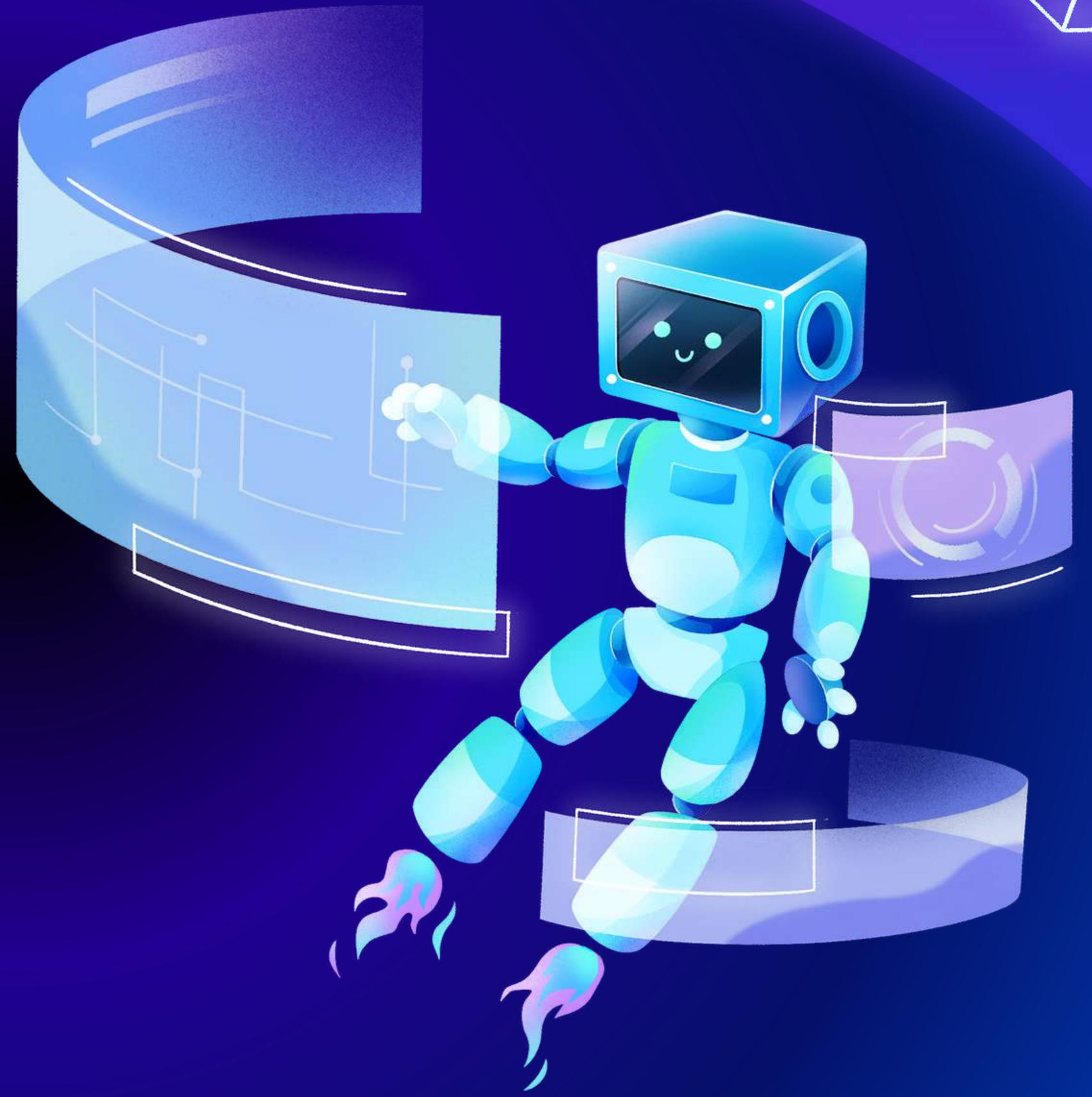
Source: News, Patents, Technical Support



# FUTURE IMPROVEMENTS



# DISCUSSION



# Q&A

