

# ScrollMark – Task1

# Executive Summary

- Analyzed 18k+ customer comments with AI/LLM pipelines to extract sentiment, flavours, themes, and insights.
- Overall sentiment skewed positive, but clear pockets of negativity highlight product and brand risks.
- Identified top flavours by mentions (e.g., Moroccan Rose, Pink Champagne, Sunkissed Poppy) with strong links to customer loyalty and nostalgia.
- Extracted 10 broad themes (fragrance, performance, availability, packaging, etc.) to structure insights for product managers.
- Surfaced actionable insights per theme: e.g., fragrance longevity concerns, distribution gaps beyond Walmart, packaging friction, and desire for limited-edition scents.
- Built trend visualizations (daily/seasonal sentiment, flavour trends, complaint spikes) for tracking customer experience over time.

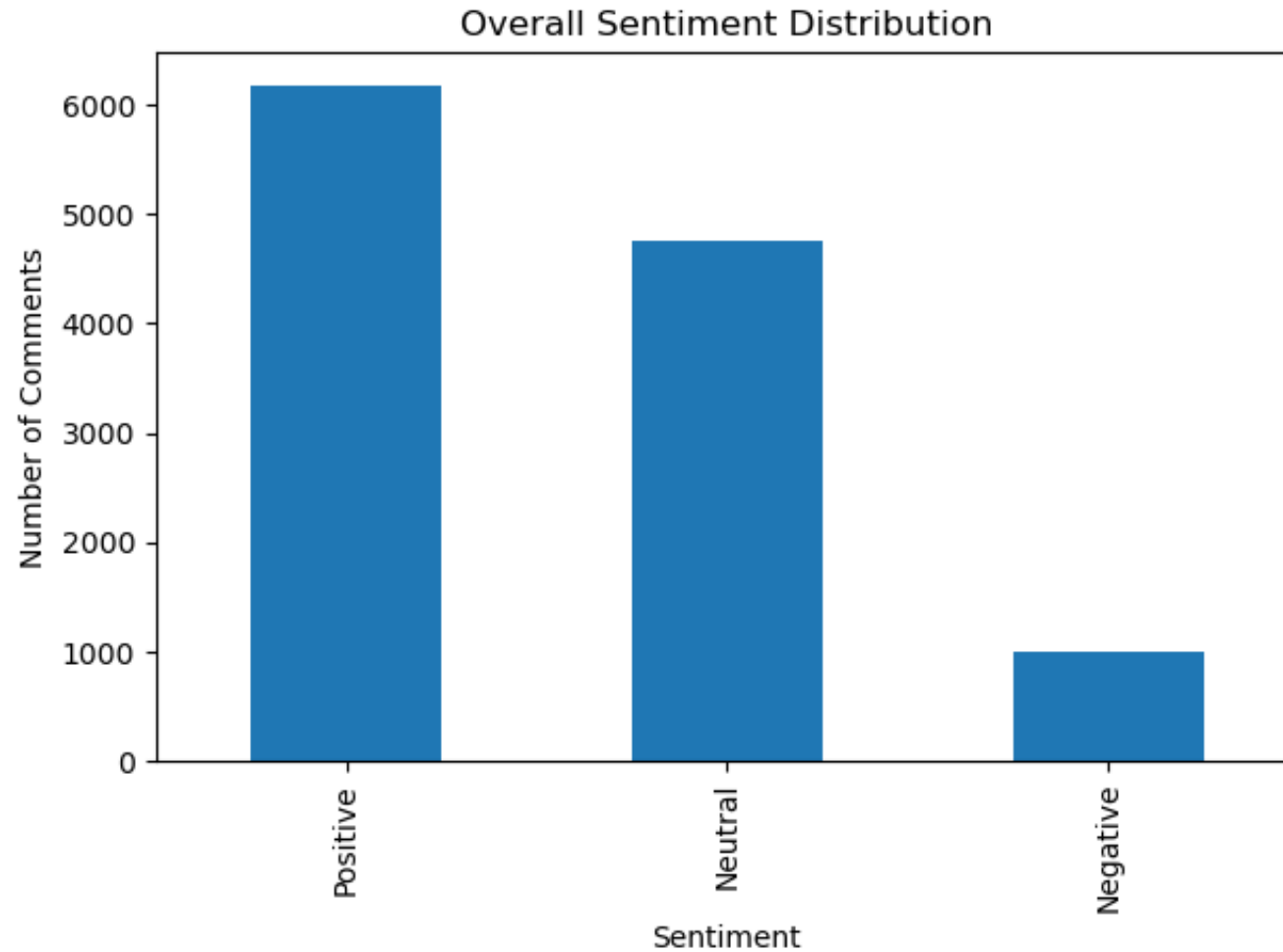
# 3 Key Takeaways

- Fragrance Drives Loyalty & Complaints
  - Fans push for return of limited-edition scents (e.g., *Pink Champagne*, *Moroccan Rose*).
  - Negative chatter around certain scents being “too sweet” or “fake.”
- Retail Distribution is a Bottleneck
  - Multiple requests for availability outside Walmart (Target, Ulta, online).
  - Missed sales opportunity in Canada/Intl. where fans can’t purchase.
- Packaging & Usage Friction
  - Complaints about drainage/clogging, bottle design issues.
  - Opportunities to improve ease-of-use and highlight redesigns in comms.

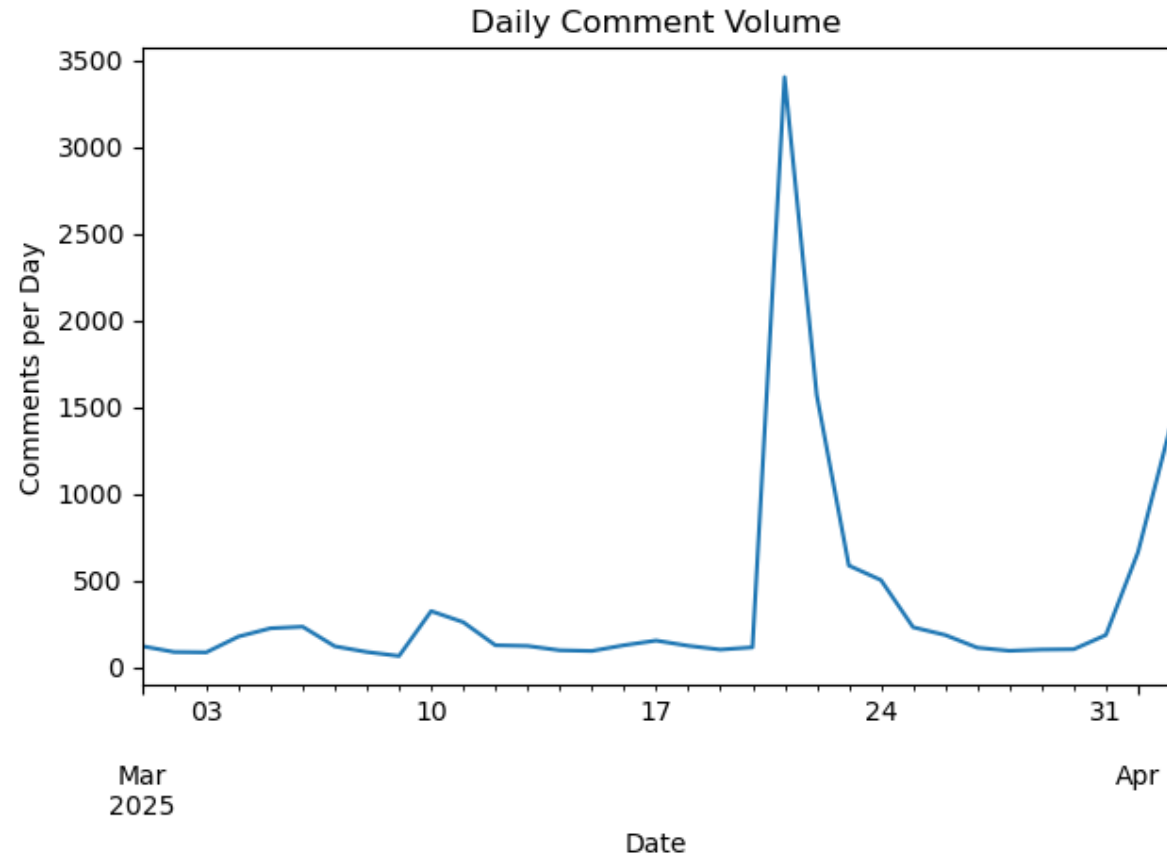
# Approach

- Get Segments by calling LLMs to get -
  - Sentiments (from comments\_text)
  - Flavours (from media\_caption)
  - Broad themes (from comments\_text) – only on a sample of 1500 data
- Clean the data
  - Remove hashtags, URLs, mentions, emojis, etc.
- Get additional segments –
  - Day (By using timestamp) and
  - Countries by using NER
- Plot Visualizations
- For each theme and its corresponding comments, call LLM to extract out meaningful insights

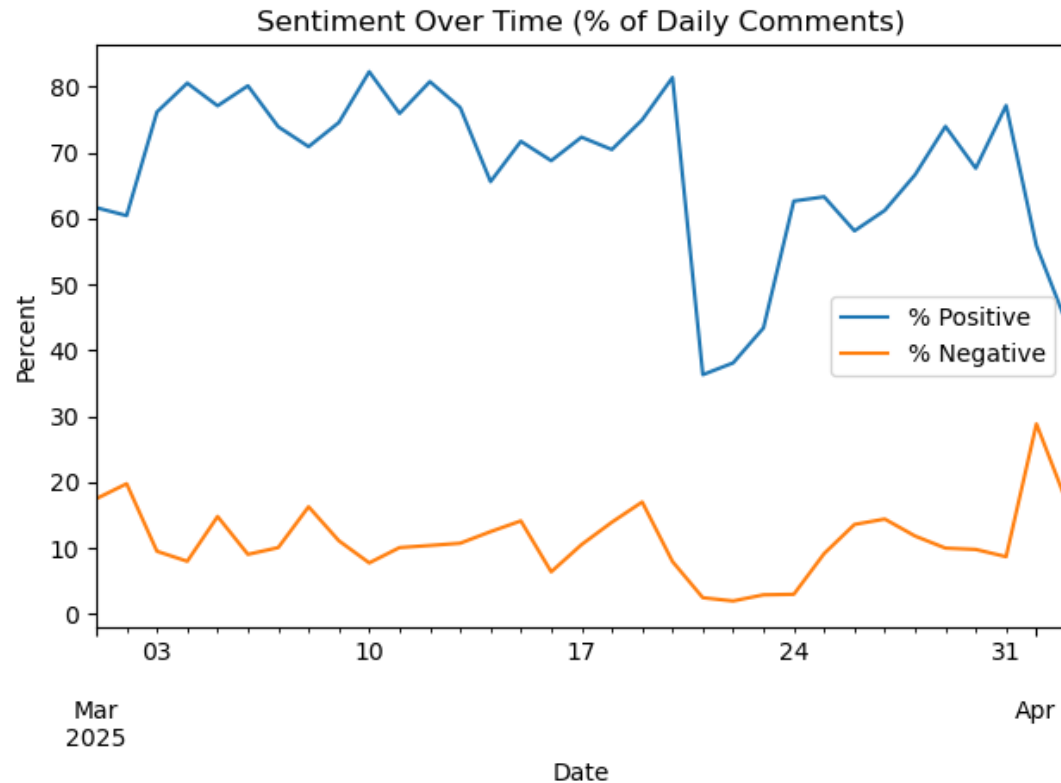
# Overall Sentiment Distribution



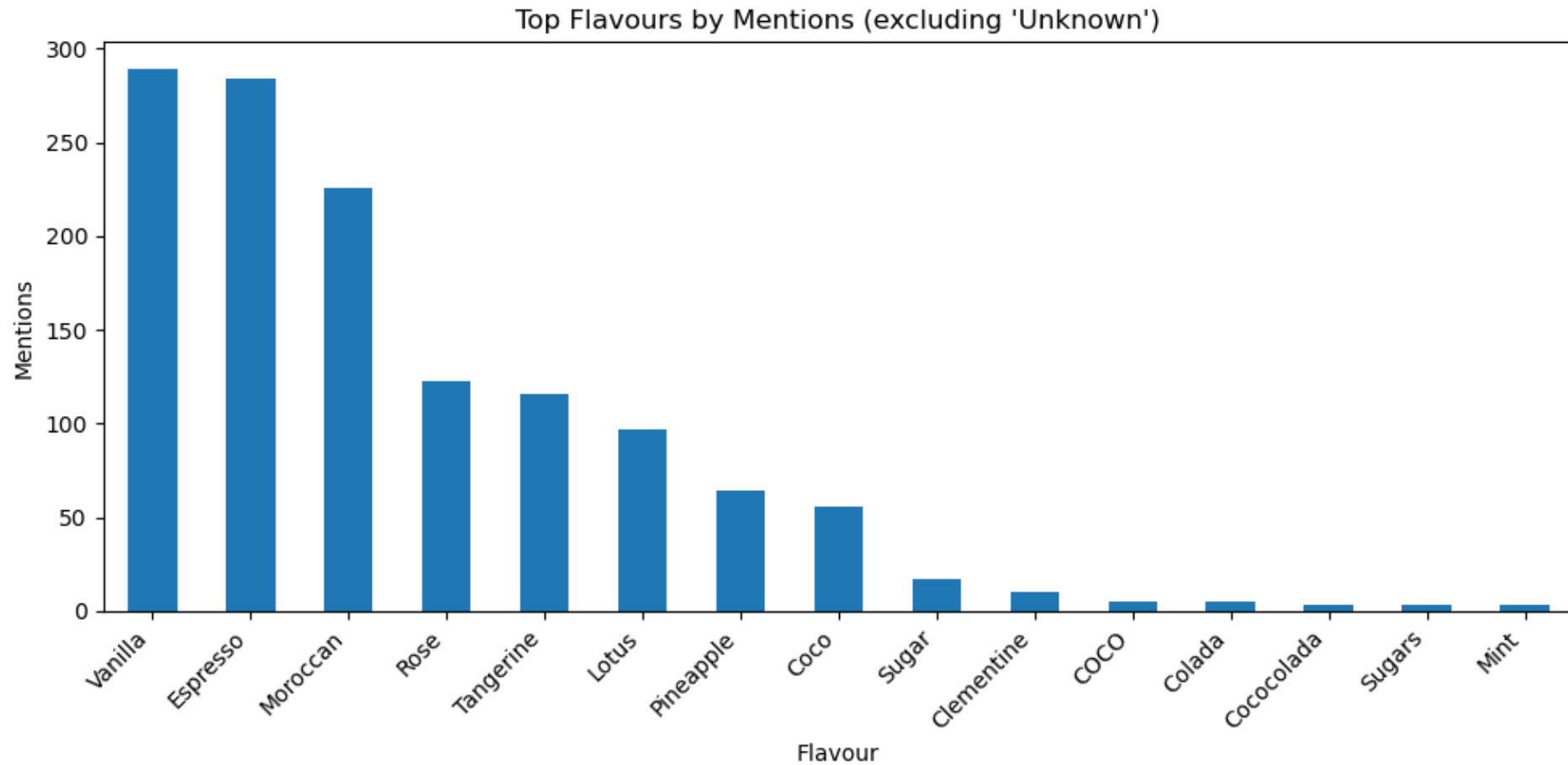
# Daily Comment Volume



# Sentiment over time - daily % positive & % negative

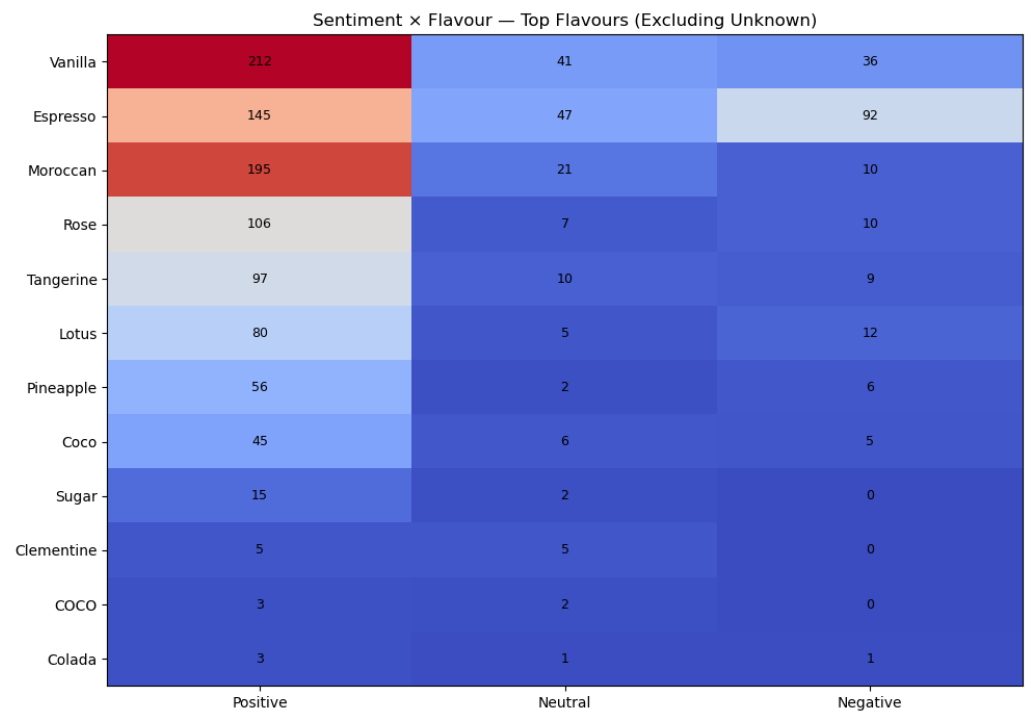
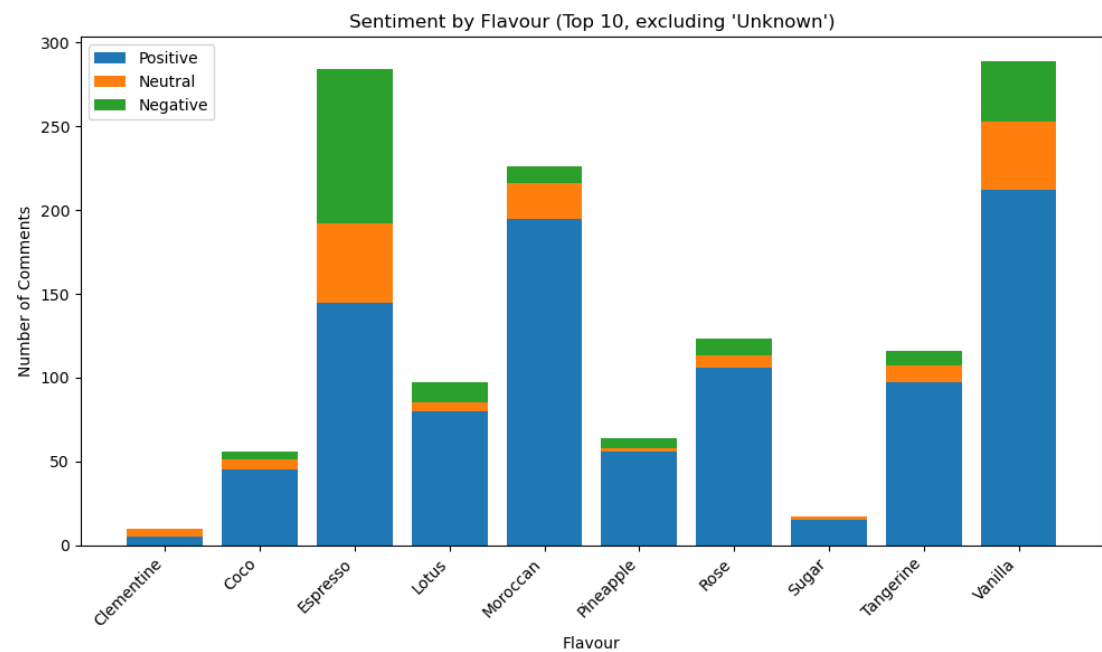


# Top flavours by mentions (bar)

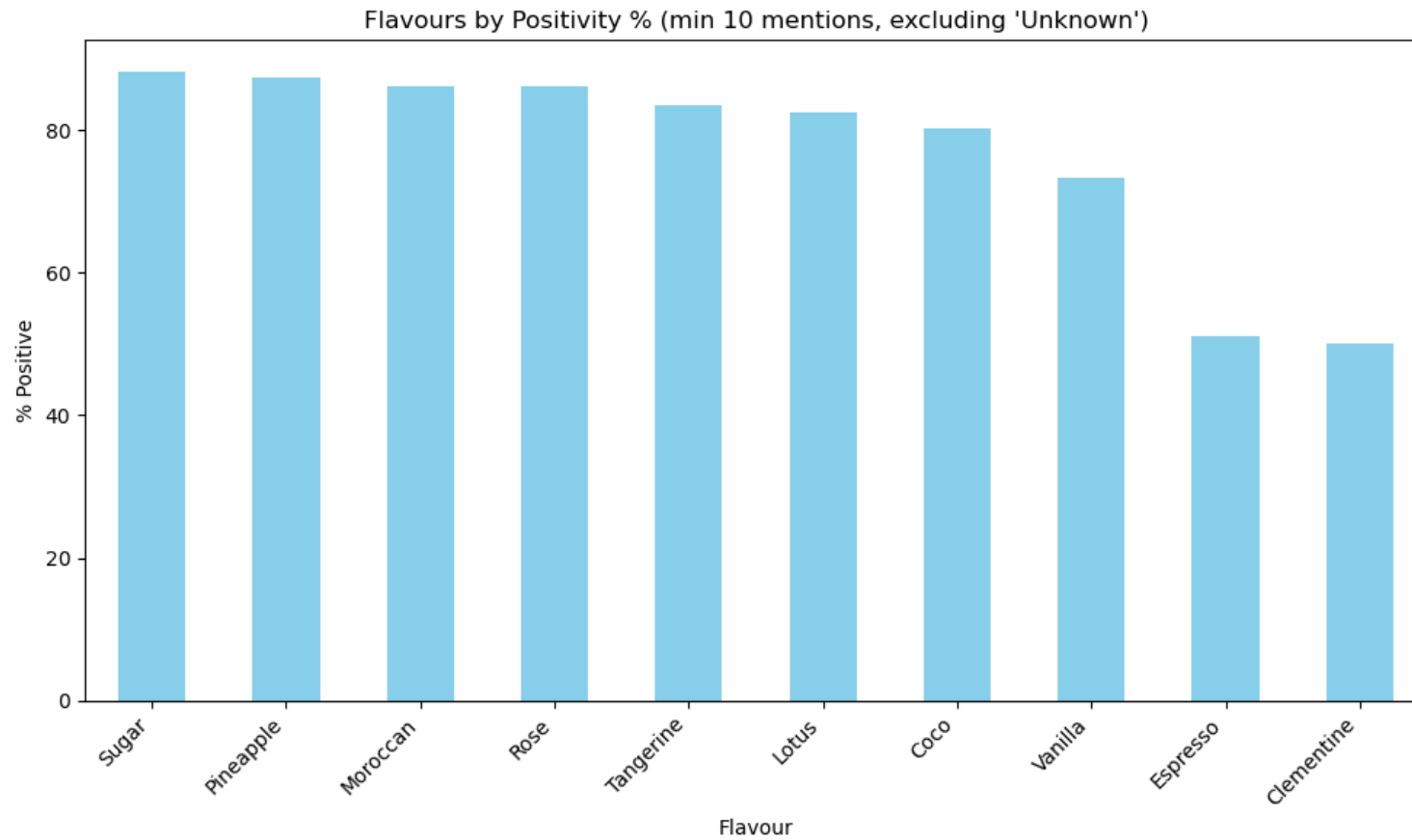




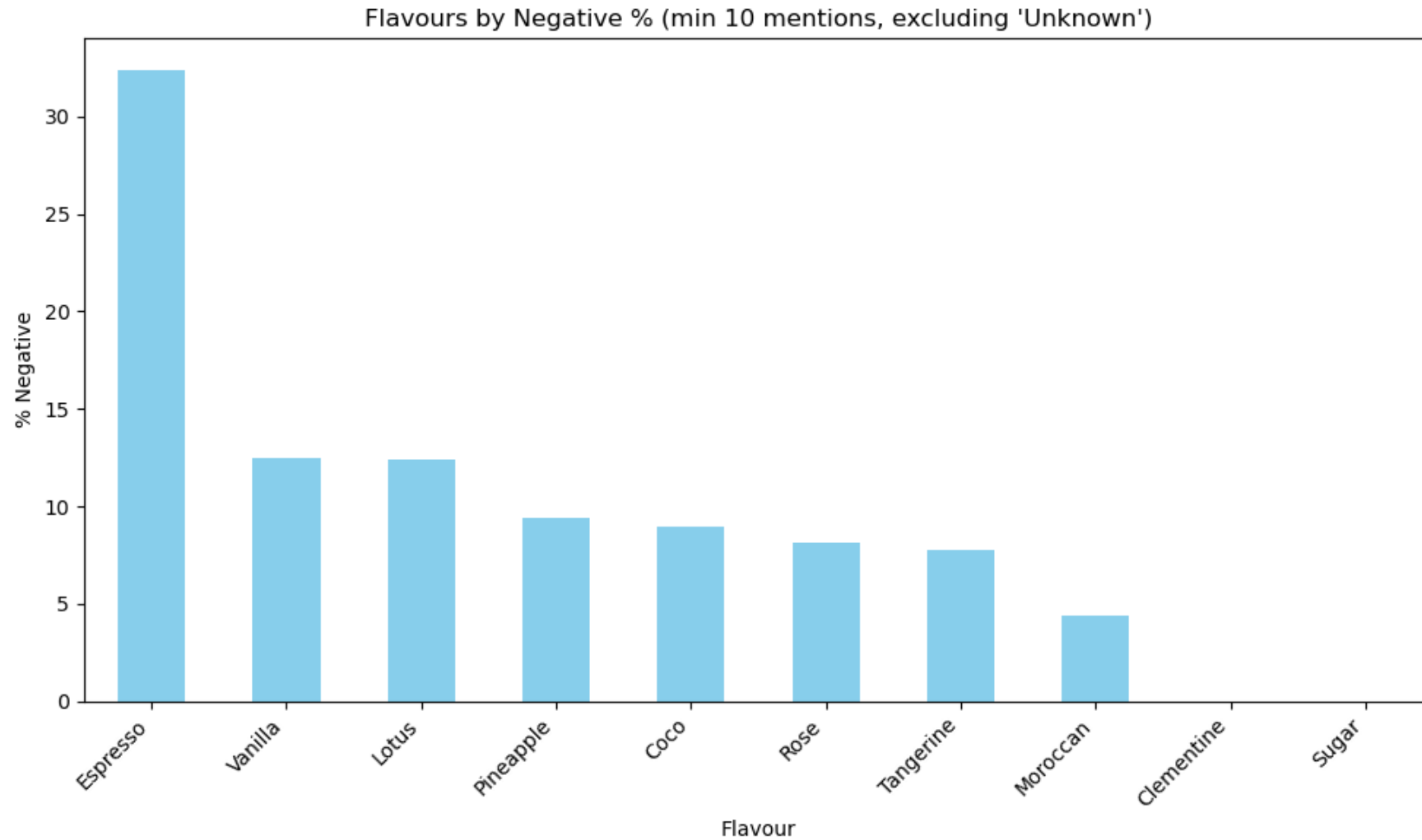
# Sentiment by flavours



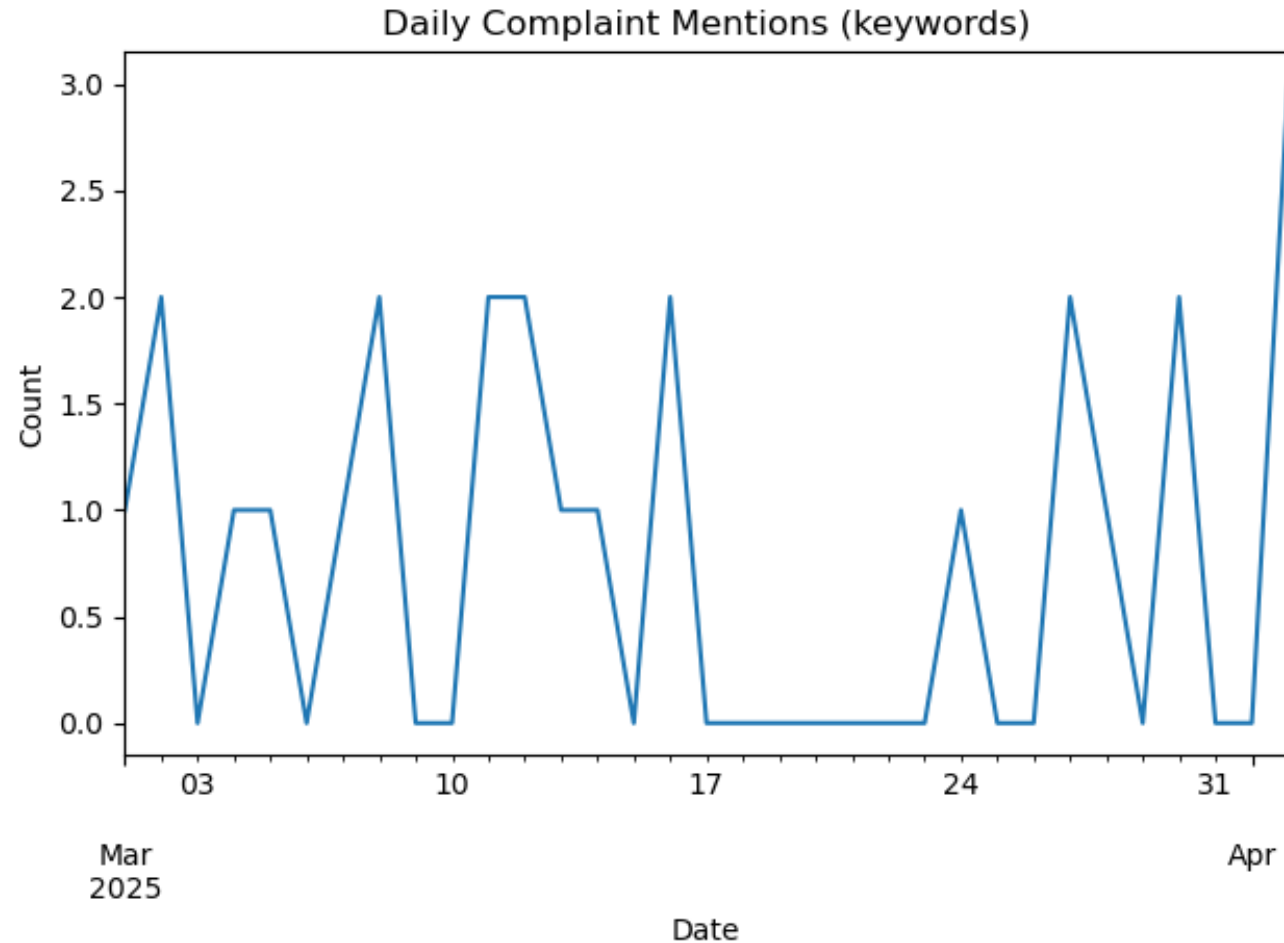
# Positivity % by flavour (bar)



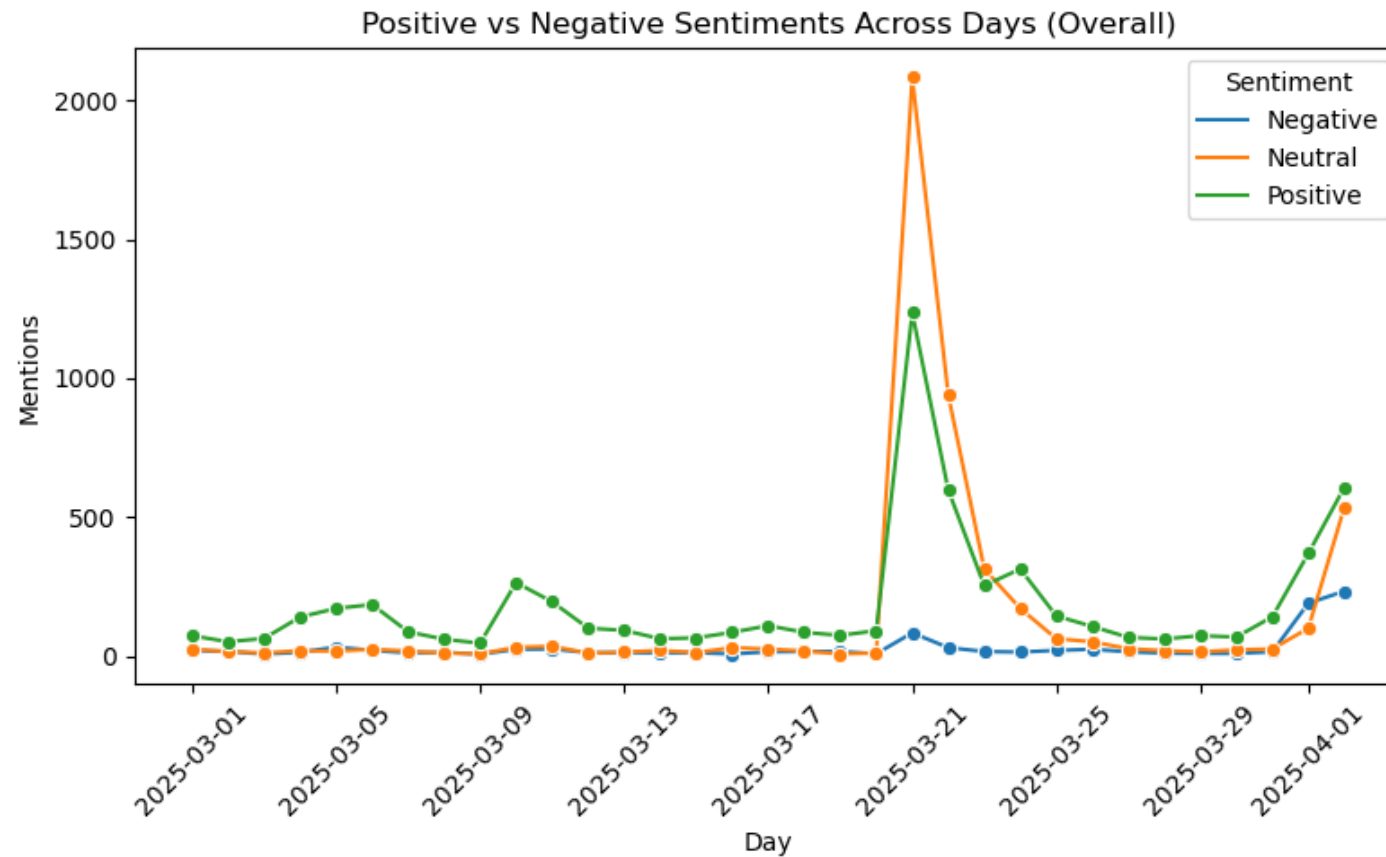
# Negativity % by flavour (bar)



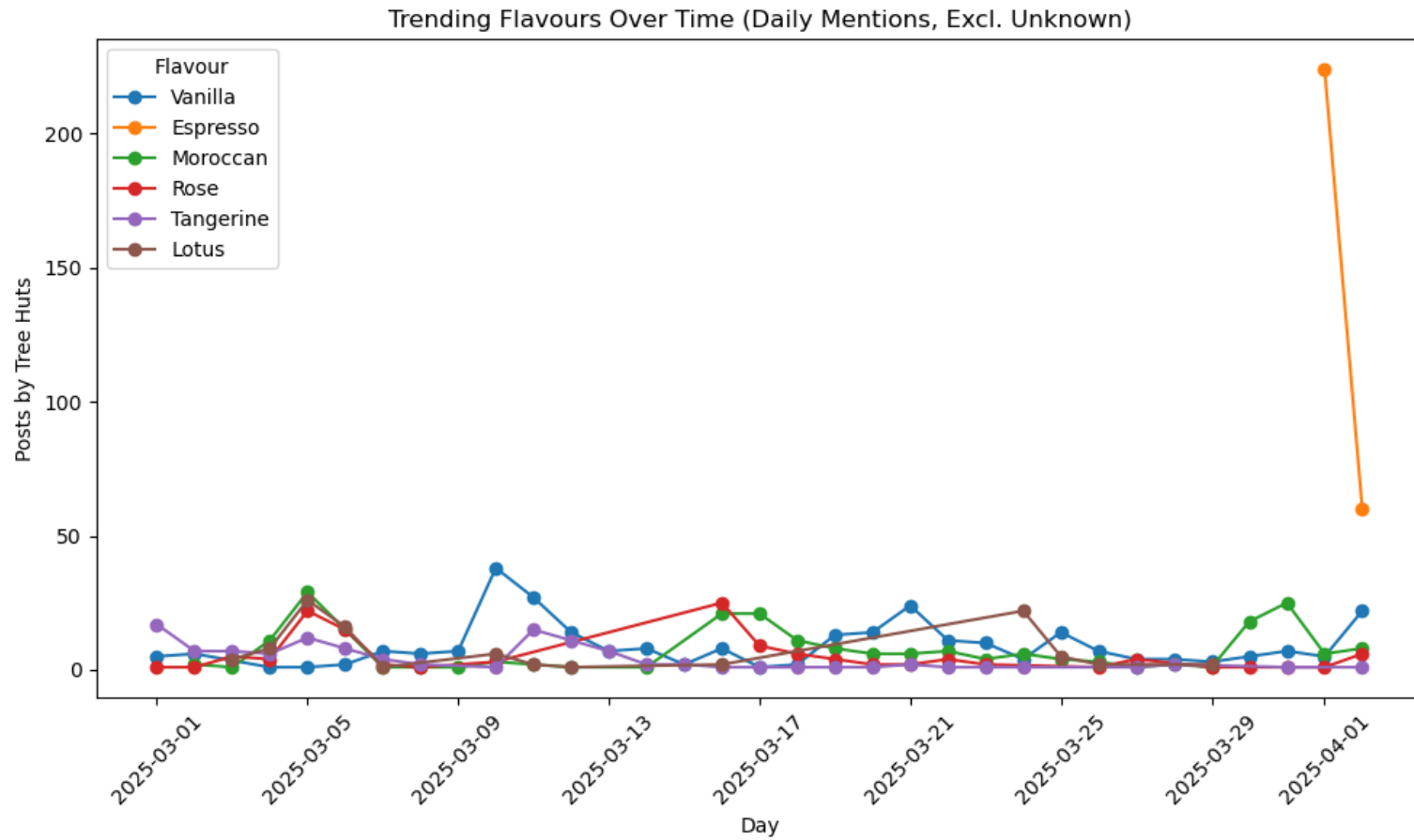
# Complaint spike tracking (keywords)



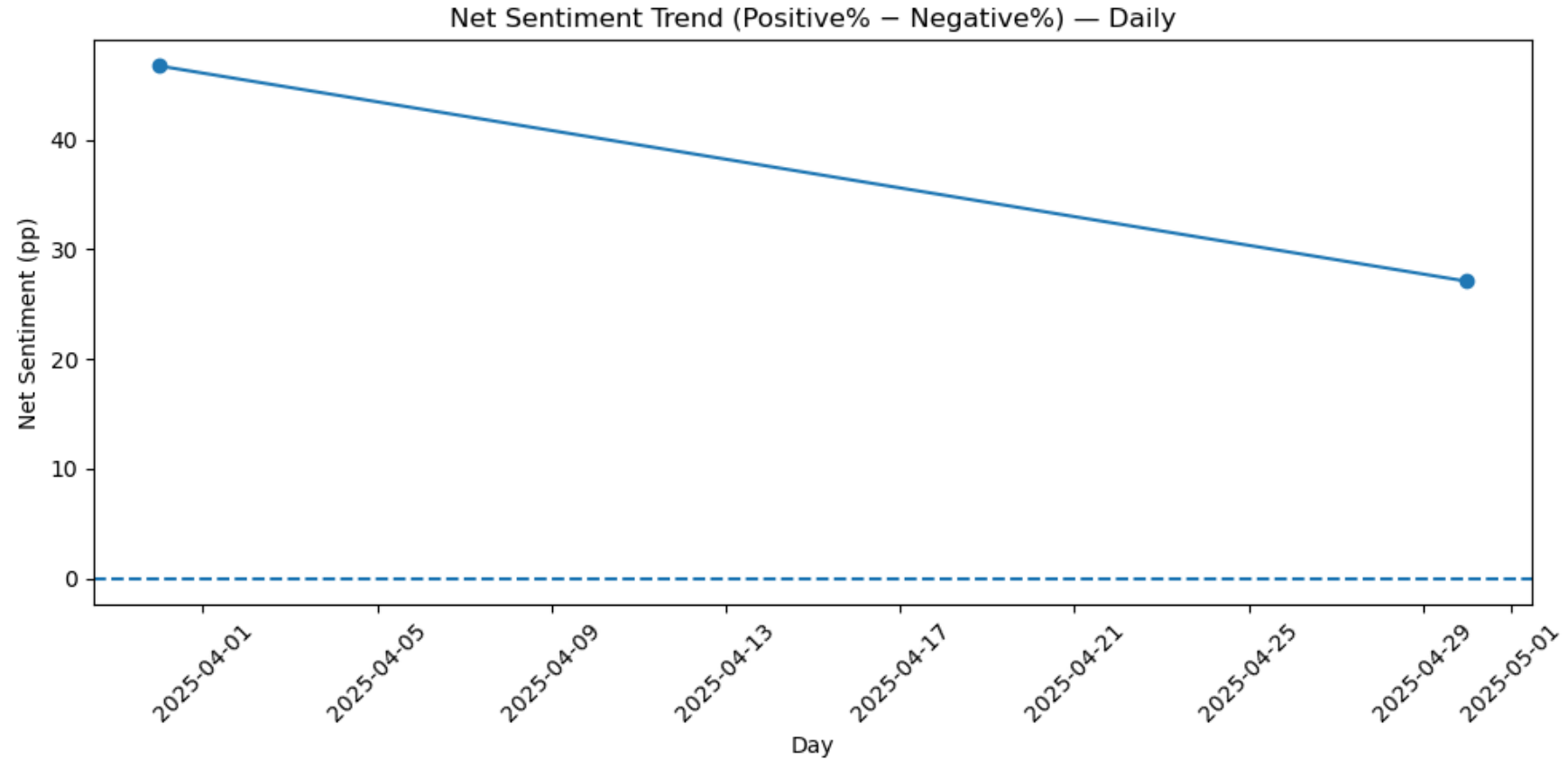
# Positive vs Negative Sentiments Across Days



# Trending Flavours Over Time



# Net Sentiment Trend (Positive% – Negative%) - Daily



# Insights - Fragrance & Scent Preferences

- Texture and Feel are Important: Customers value the 'luscious' and 'wonderful' texture of the products, particularly the scrubs.
- Fragrance Longevity is a Key Concern: Several comments focus on how long the scents last, suggesting a desire for stronger, longer-lasting fragrances.
- Limited Edition/Discontinued Scents Drive Desire: The repeated requests for “Sweet Cream”, “Moroccan Rose”, and “Sunkissed Poppy” highlight a strong desire for previously unavailable or discontinued scents, indicating a valuable opportunity for limited-edition releases.



# Insights - Emotional / Lifestyle Fit

- Gift-Giving & Sharing: The product is frequently mentioned as a gift, suggesting a strong social aspect and a desire to share positive experiences with others.
- Demand for Variety: Customers are interested in the full range of products – body butter, sugar scrubs, body wash, etc. – suggesting a desire for a complete self-care collection.
- Emotional Connection to Self-Care: The products are associated with significant emotional benefits – relaxation, stress relief, self-love, and a boost in confidence.

# Insights - Product Performance & Usage

- Significant Positive Feedback on Exfoliation: A massive number of customers (over 100 mentions) rave about the scrub's effectiveness as an exfoliant.
- Face Use – A Major Point of Confusion/Opportunity: There's a huge amount of discussion around whether the scrub is suitable for the face. Several comments express this question, and a significant portion (around 15+) state it is used on the face, with positive results. This highlights a clear need for clearer guidance on packaging and marketing regarding facial use.
- Drain Issues: Approximately 10 comments raise concerns about the scrub clogging drains, which could lead to customer dissatisfaction and potentially damage plumbing.

# Insights - Product Requests & Suggestions

- Customization & DIY is Popular: Many customers want the ability to customize scents by creating their own scrubs (e.g., “take your empty tub...stir till you like it”) – highlighting a desire for personalized product experiences.
- Multi-Product Sets & Routines are Desired: Customers repeatedly express a desire for complete sets (e.g., “lotion body wash and oil set”) and the ability to build a complete shower/body care routine.
- Body Oils & Sprays are Emerging Needs: The desire for body oils (“I want them all”) and sprays (“make spray please it's perfect for spring summer”) shows a desire for new delivery methods.

# Insights - Product Availability & Purchase

- Walmart is the Primary Distribution Channel: A staggering 40% of comments explicitly mention Walmart as the place to buy Tree Hut products.
- Demand for Wider Retail Availability: A significant portion of customers express frustration over limited availability, stating they “miss” products, are “sold out everywhere,” and want to know “where else you can get” them. This indicates a need to expand retail distribution beyond Walmart.
- Ulta is a Growing Channel & Needs Attention: While Walmart dominates, Ulta is consistently mentioned as a secondary purchase location. Customers appreciate Ulta’s presence but also express annoyance with limited scent selection, suggesting potential opportunities for targeted promotions and scent expansions within Ulta.

# Insights - Price & Value

- Price Sensitivity & Perceived Value: A significant number of customers (multiple comments) express concern about rising prices.
- TikTok Viral Success & Price Impact: The comments referencing the TikTok trend and subsequent stock-ups point to a powerful marketing driver.
- Price Variance & Promotional Activity: Customers are noticing discrepancies in pricing across retailers (Walmart vs. Target) and during sales. This indicates a need for better price consistency and potentially more strategic promotional pricing to manage customer expectations.

# Insights - Customer Service & Brand Perception

- Strong Positive Sentiment & Brand Loyalty: A significant number of customers (multiple mentions of "best," "faithful," "love") express overwhelmingly positive sentiment and demonstrate strong brand loyalty.
- Demand for Expansion & Availability: The repeated requests for product availability in Canada ("need the rest of this collection in canada") and the UK ("would you be doing one for the uk") indicates a clear unmet demand for international expansion
- UGC Collaboration Opportunity: Multiple customers proactively reached out requesting collaborations ("hi treehut i want to collab ugc with you but i haven t received any response from you", "omg i love products thanks for this amazing opportunity").

# Insights - Promotions & Influencer Mentions

- Instagram Contest Strategy - High Priority: A significant number of customers (multiple mentions) express frustration with Tree Hut's exclusive Instagram-only contests.
- Sensory Experience - Positive Sentiment, Opportunity for Amplification: The comments "i can smell the video" and "oh look it s me in the shower actually with the singing too" highlight the importance of the sensory experience associated with Tree Hut products (specifically the scent)
- Desire for Recognition & Engagement - Medium Priority: Several customers explicitly request help with their social media pages ("please do help me") and express a desire to win ("yes do i win them now"). This reveals a desire for brand recognition and personalized engagement.
- TikTok Potential – Emerging Opportunity: The shift in social media trends suggests that TikTok could be a valuable platform for Tree Hut.

# Insights - Packaging & Design

- Strong Aesthetic Appeal - Color & Sparkle Drive Desire: A significant number of customers (multiple comments explicitly stating “pretty color,” “gorgeous color”) are clearly focused on the visual appeal of the products – particularly the color options.
- Bottle Design – Significant User Friction: The repeated complaint (“dang are the body wash bottles hard to open in the shower,” “none of dat shit can fit in the bag just me ok”) represents a major usability issue. Customers are struggling to access the product in its intended environment (the shower) and potentially with the travel bag.
- Travel Bag Capacity Concerns: The comment “none of dat shit can fit in the bag just me ok” reveals a dissatisfaction with the size/capacity of the Tree Hut travel bag. Customers feel the product doesn't utilize the bag effectively.



# Extension Proposal

- Scale the Analysis: Move from small to full dataset with automated pipelines across months and years to get the seasonal and yearly effects.
- LLM + Clustering Hybrid: Use topic clustering + LLM labeling to capture emerging themes without rule-based bottlenecks.
- Granular Segmentation: Extend insights by region, retailer (Walmart, Ulta, Target), and product line for localized strategies. Additionally across different age groups of customers.
- Automation: Productionize workflows with Airflow/Prefect, dashboards in Looker/Tableau, and ongoing monitoring.
- Early Warning System: Implement real-time sentiment & complaint tracking (e.g., drain issues, discontinued scent demand).
- Product Roadmap Integration: Feed insights into flavour revival, packaging redesign, and pricing strategy discussions.
- Influencer & UGC Opportunity: Identify customers requesting collabs or contests to strengthen brand engagement.

# AI Tools Used

- ChatGPT
- 'gemma3:4b'

Note: All insights were cross-validated manually to ensure accuracy, not blindly generated by LLMs.”