

# Sentiment Analysis of Amazon Customer Reviews

---

Business Intelligence Project (FA-II) - Amazon  
Fine Food Reviews

# Group Members

---

122B1B122

Aaditesh Kadu

122B1B124

Vedant Kale

122B1B139

Prajwal Khobragade

Under Guidance of  
Pooja Bidwai Madam



# Problem Statement

---

E-commerce platforms face issues of irrelevant search results, poor recommendations, and negative customer experiences which lead to cart abandonment and reduced sales.

# Objective

---

- Use text mining on customer reviews
- Classify sentiment  
(Positive/Neutral/Negative)
- Extract common issues and provide BI insights

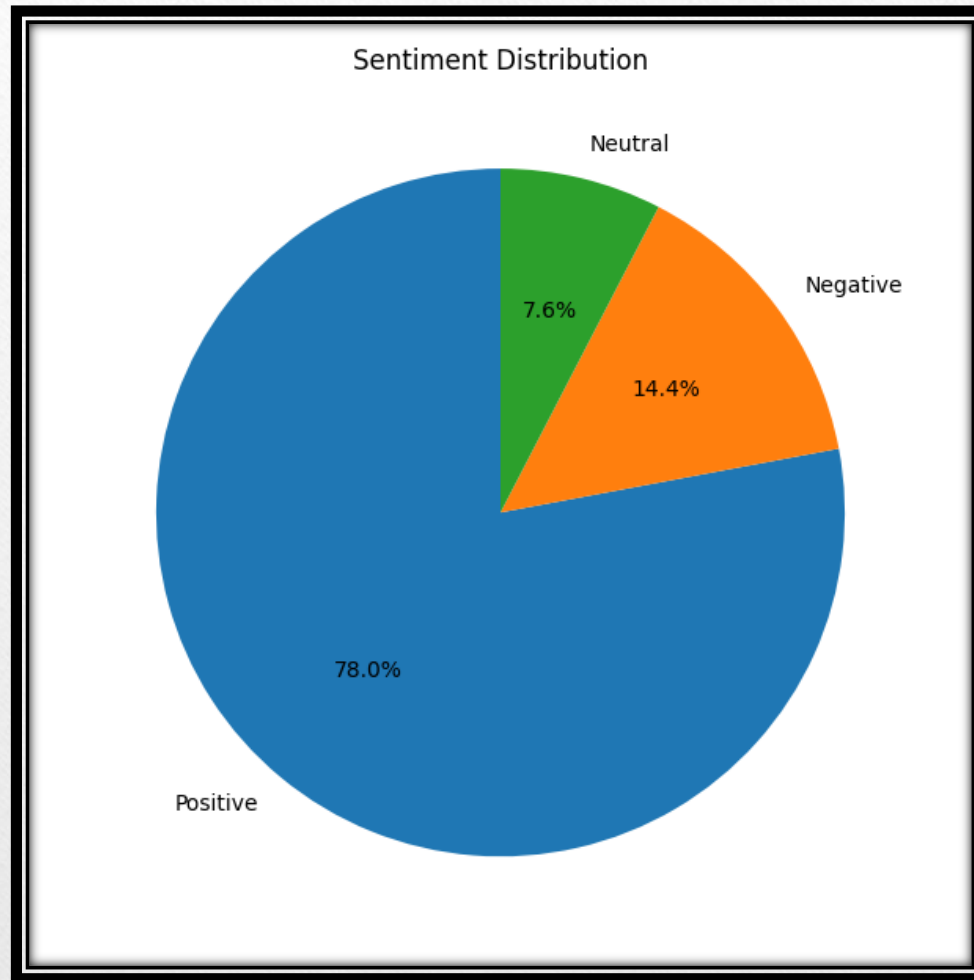


# Dataset

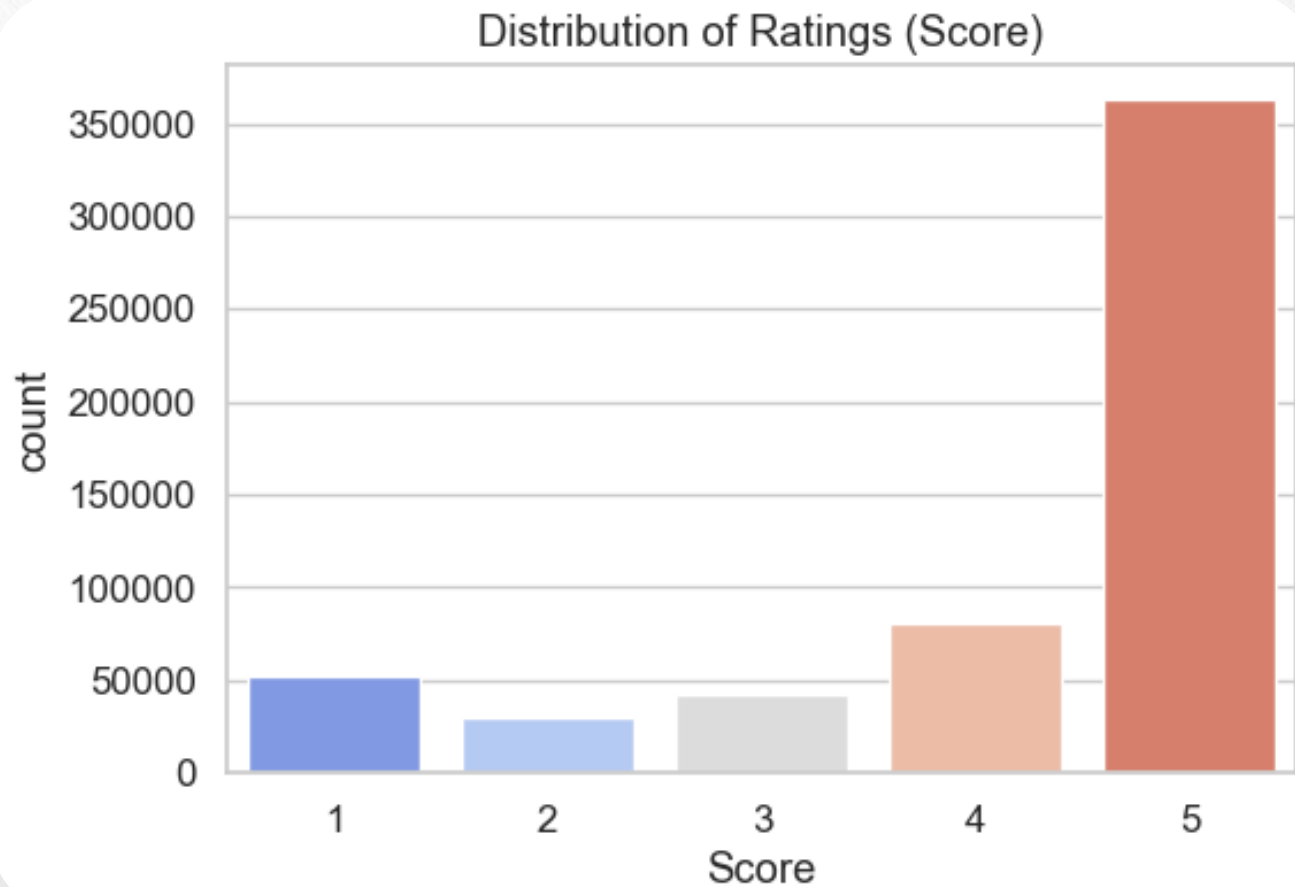
---

- Amazon Fine Food Reviews (Kaggle)
- Fields used: Text, Score, Summary, ProductID
- Link - [Amazon Fine Food Reviews](#)

# Sentiment Distribution

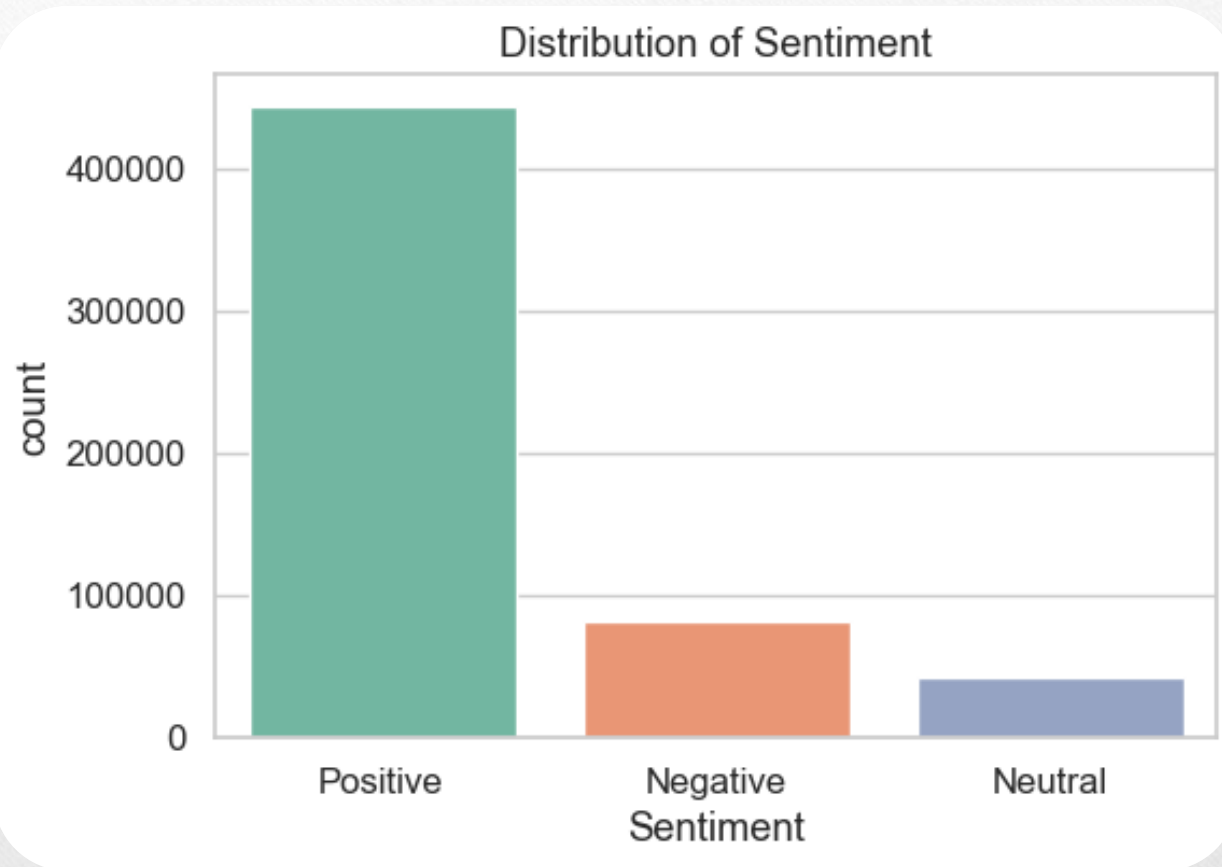


# Distribution of Ratings



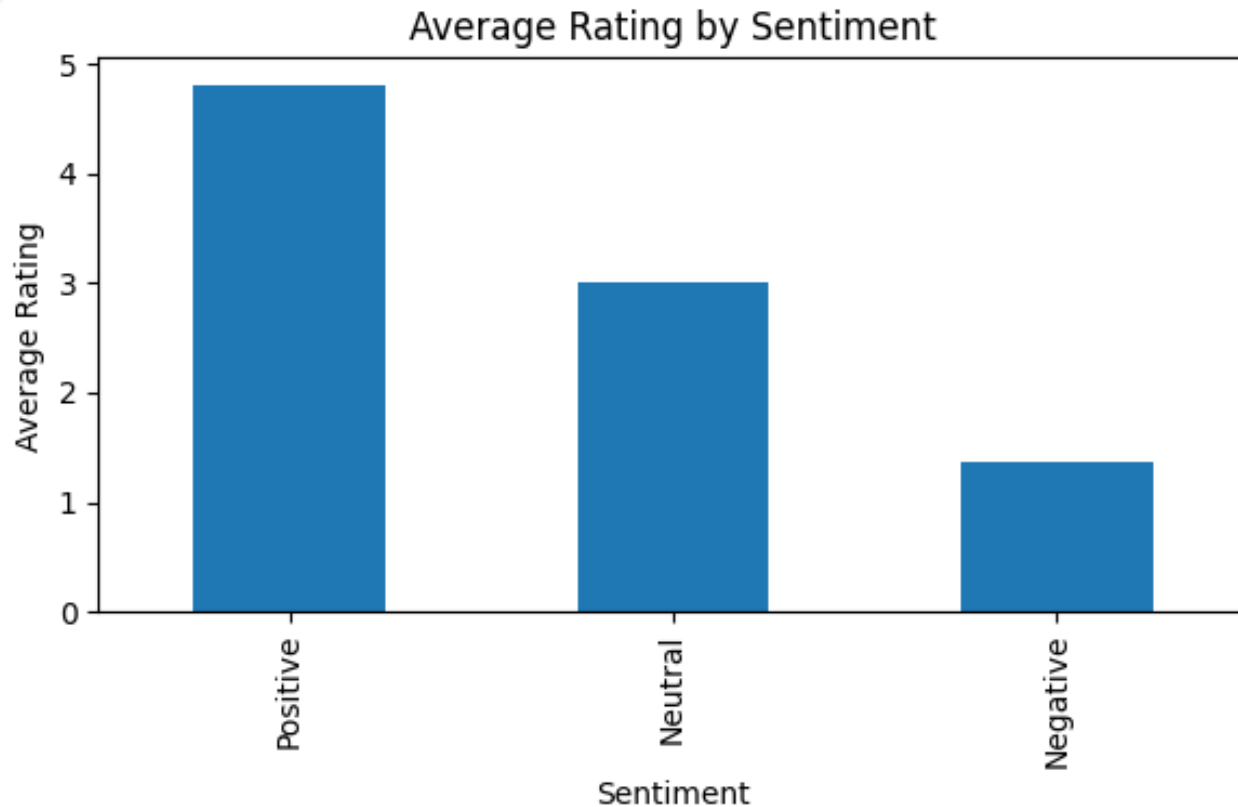


# Distribution of Sentiment

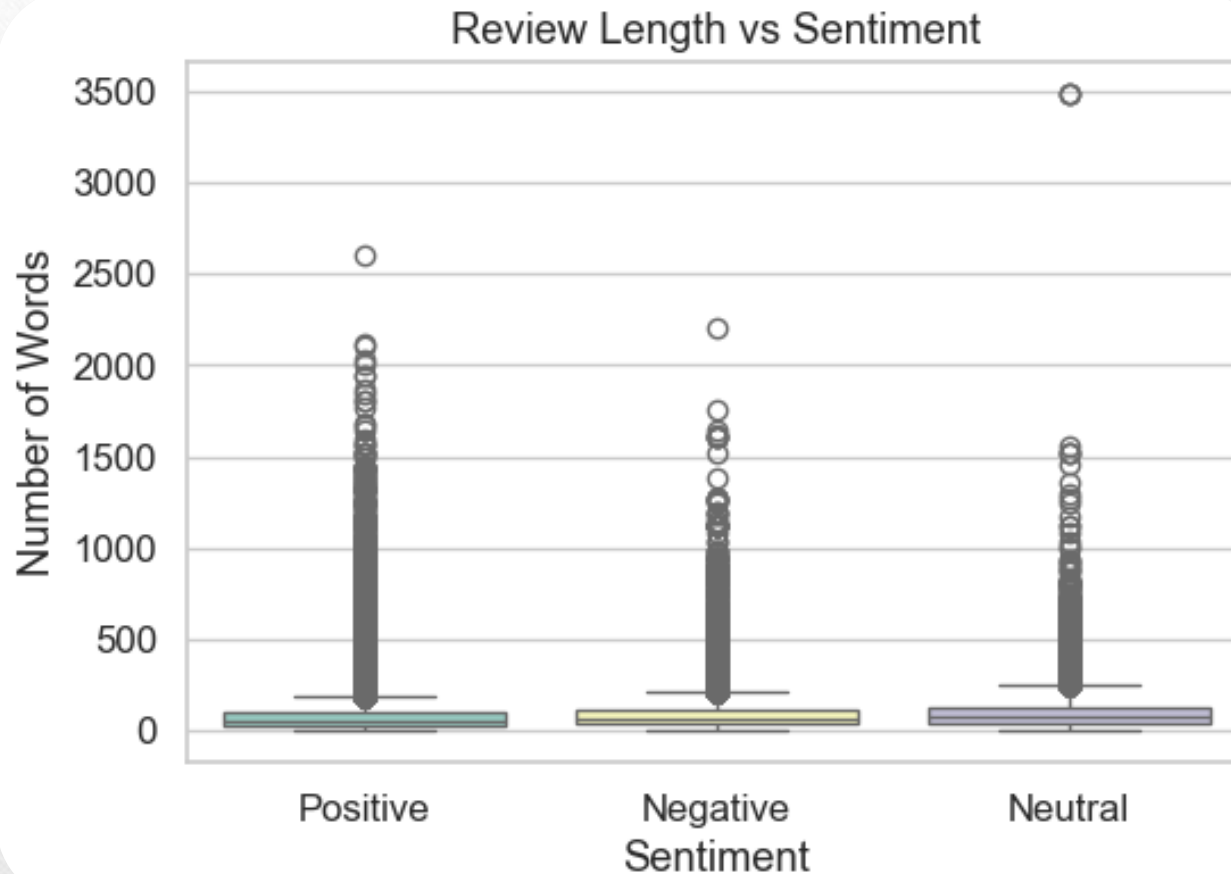




# Average Rating by Sentiment



# Review Length by Sentiment





# Common Issues in Negative Reviews





# Improving Search & Recommendations

**Problem:** Customers face irrelevant search results and poor product recommendations, leading to a negative experience.

**Insight:** The vast majority of reviews are positive (78.0%), indicating a strong signal for product quality.

- Solution 1: Prioritize and rank products with a higher volume of positive reviews in search results to improve relevance.
- Solution 2: Enhance recommendation engines by personalizing suggestions based on a user's past behavior combined with the sentiment of reviews for potential products

# Resolving Common Customer Issues

**Problem:** Negative customer experiences related to product and delivery lead to frustration and lost sales.

**Insight:** A word cloud analysis of negative reviews shows that common complaints are related to "flavor," "taste," "product," "package," and "box".

➤ **Solution:** Proactively identify and address recurring issues with product quality (taste/flavor) and fix delivery or packaging problems that are frequently mentioned in negative feedback.



# BI Insights

---

- Rank products with positive reviews higher in search
- Personalize recommendations using review sentiment + behavior
- Fix delivery/packaging issues identified from negative reviews
- Monitor sentiment trend to measure improvements



# Conclusion & Future Work

---

- Text mining + BI gives actionable insights to improve UX and sales.
- Future: Use advanced models (BERT), multilingual analysis, integrate with dashboards.