Problem Statement

“ Intel Products Sentiment Analysis from Online Reviews ”

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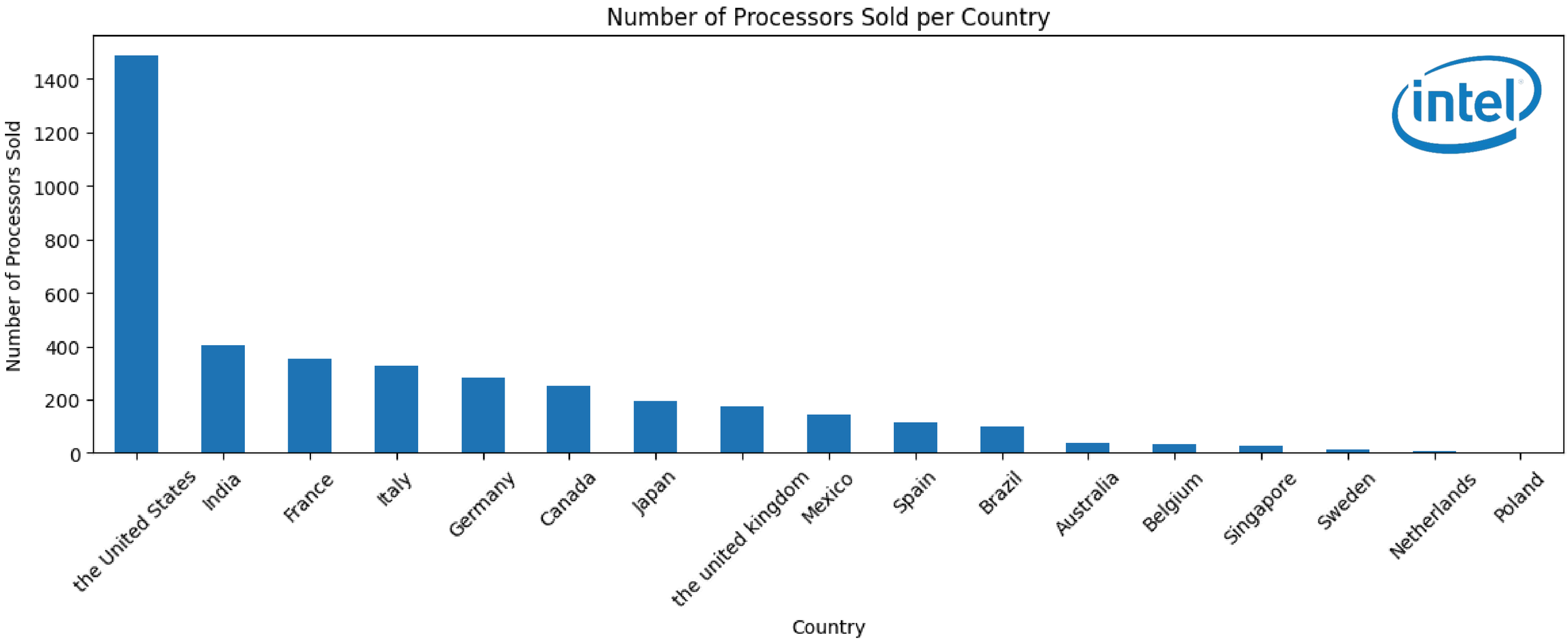
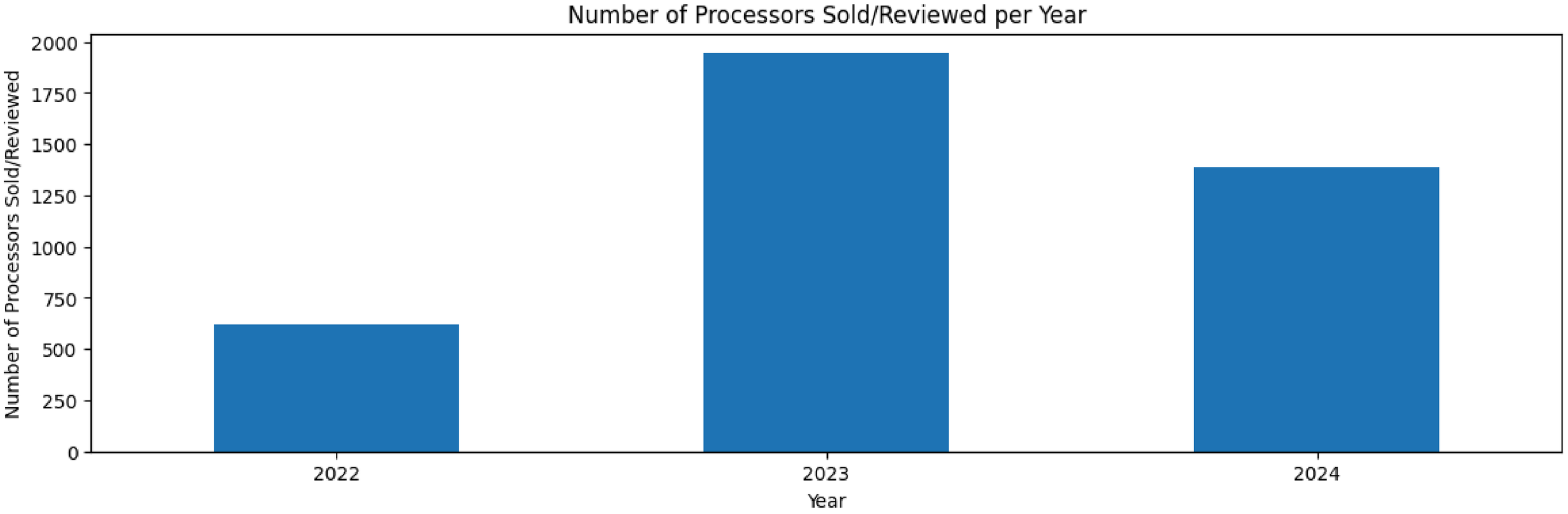
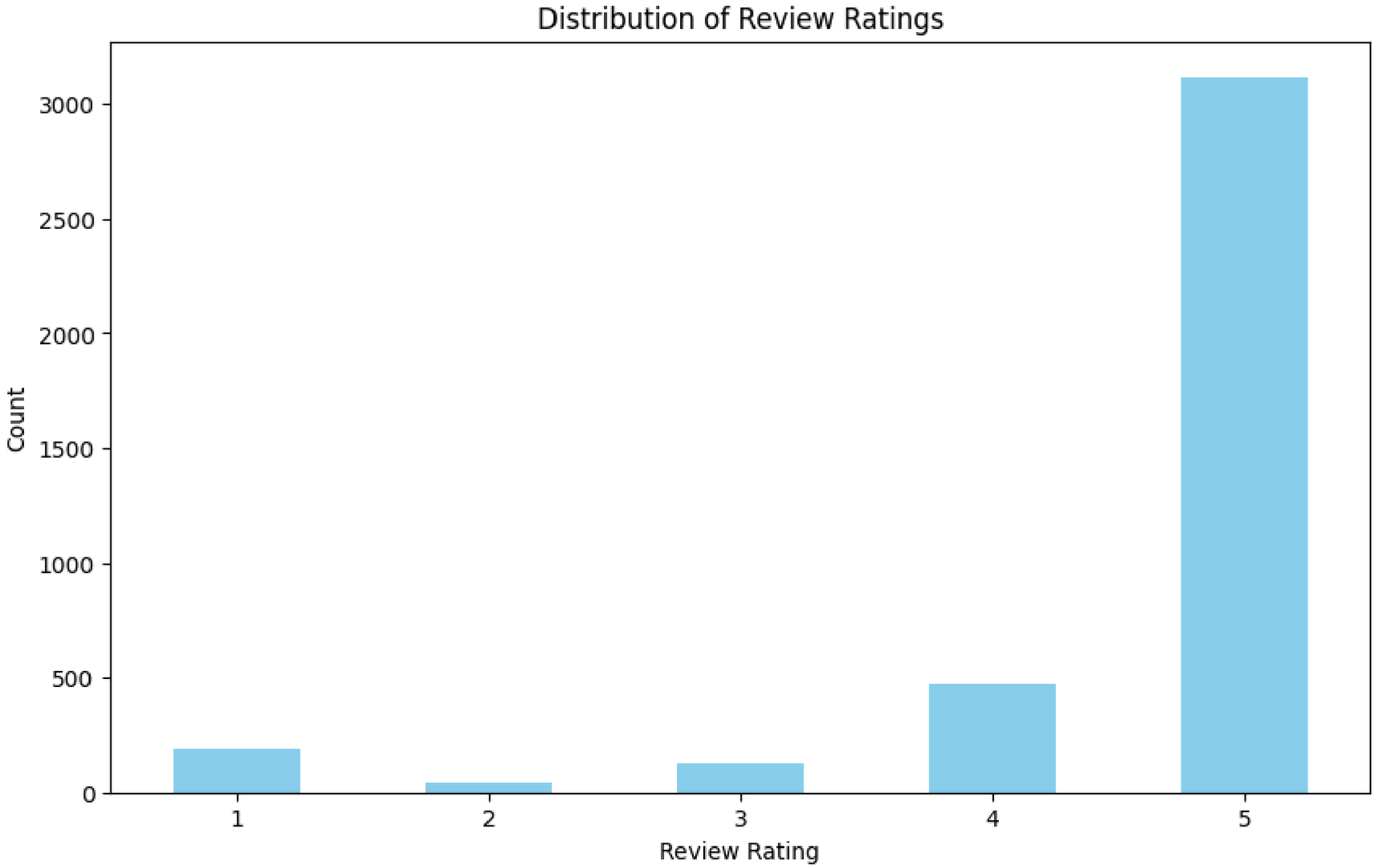


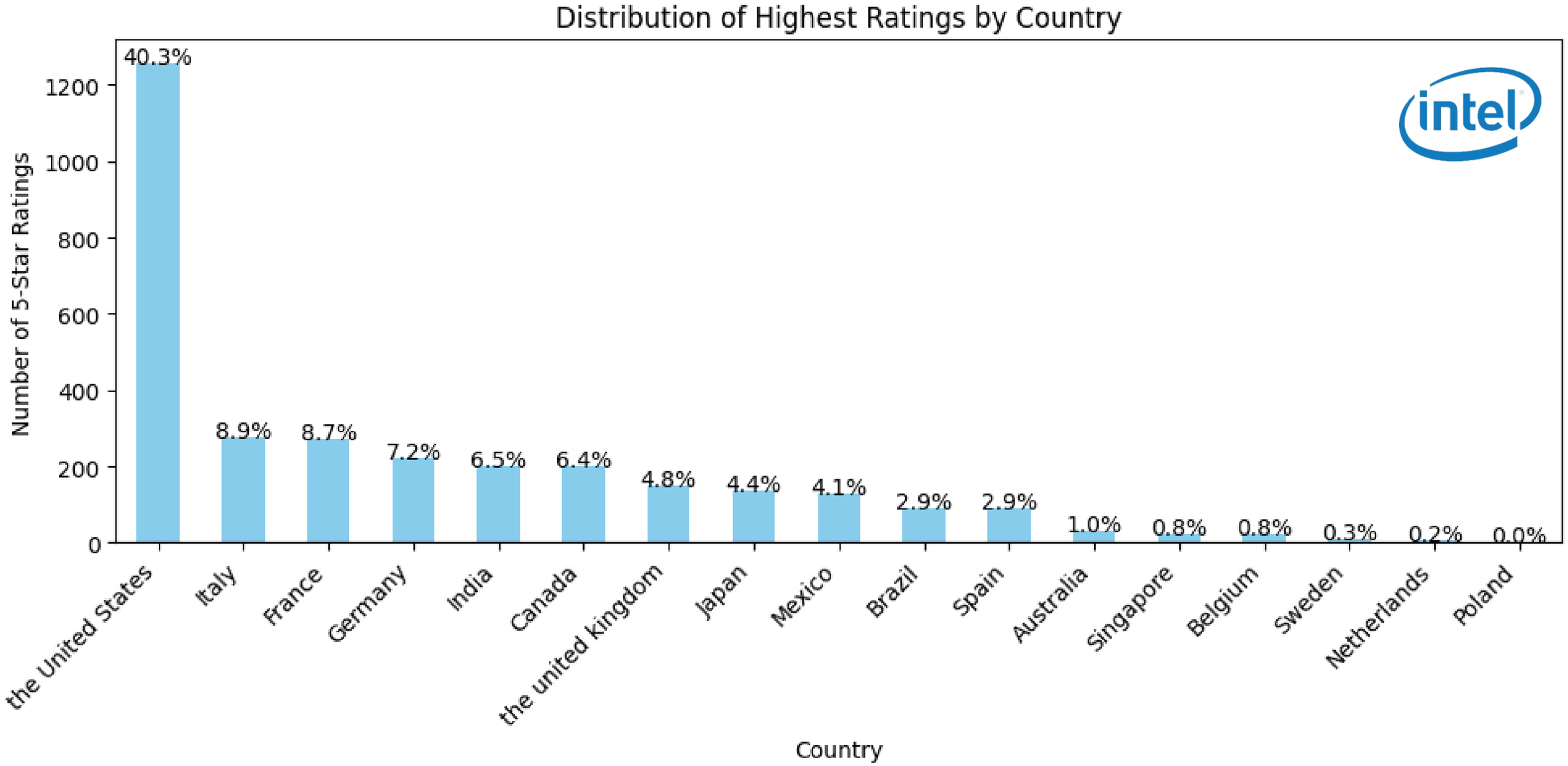
The United States is the biggest purchaser of Intel processors in the world followed by India.



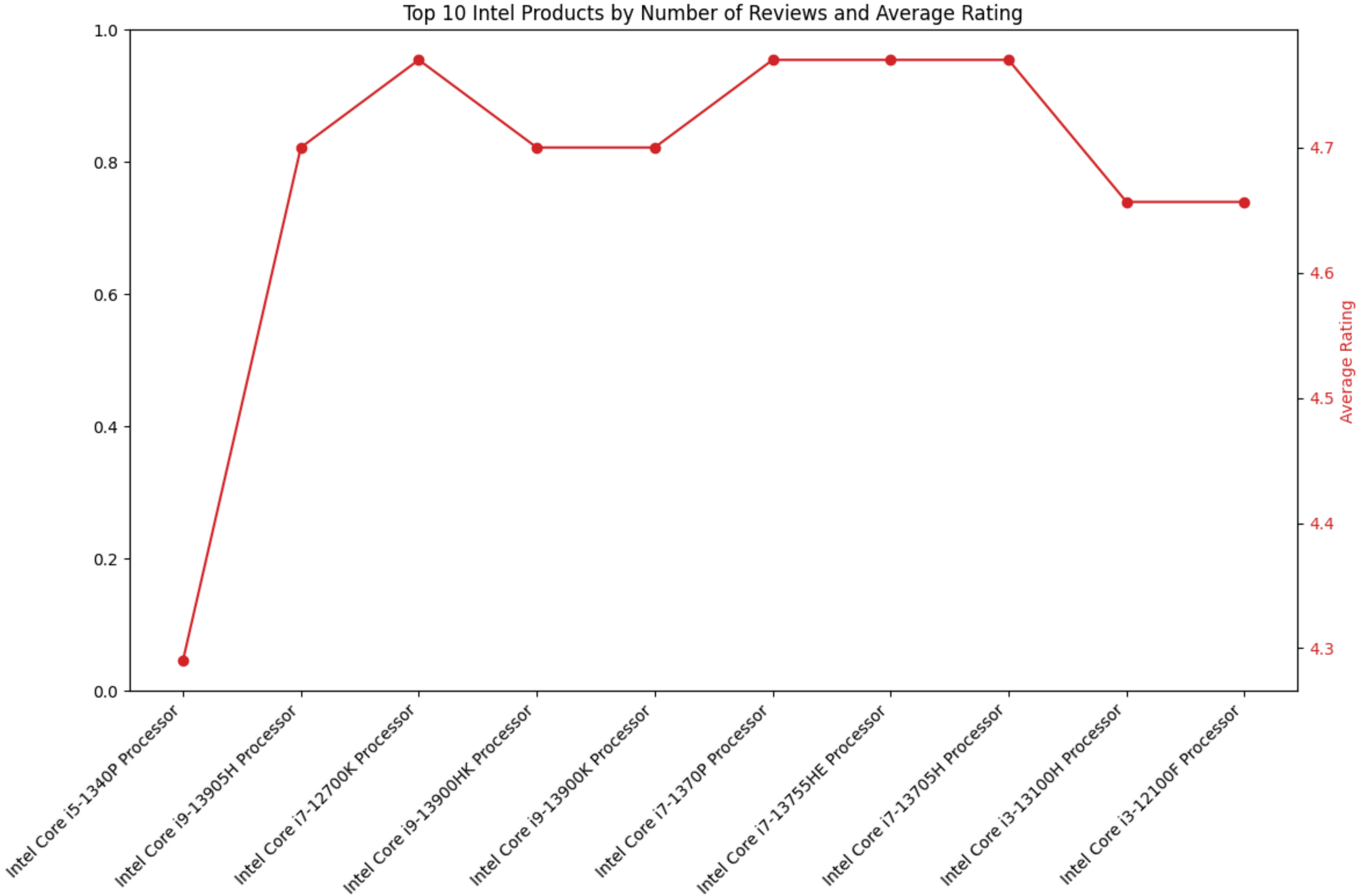
In the year 2023 highest number of the Processors were reviewed or we can say sold by keeping in mind other factors too such as market trends, product launch etc.



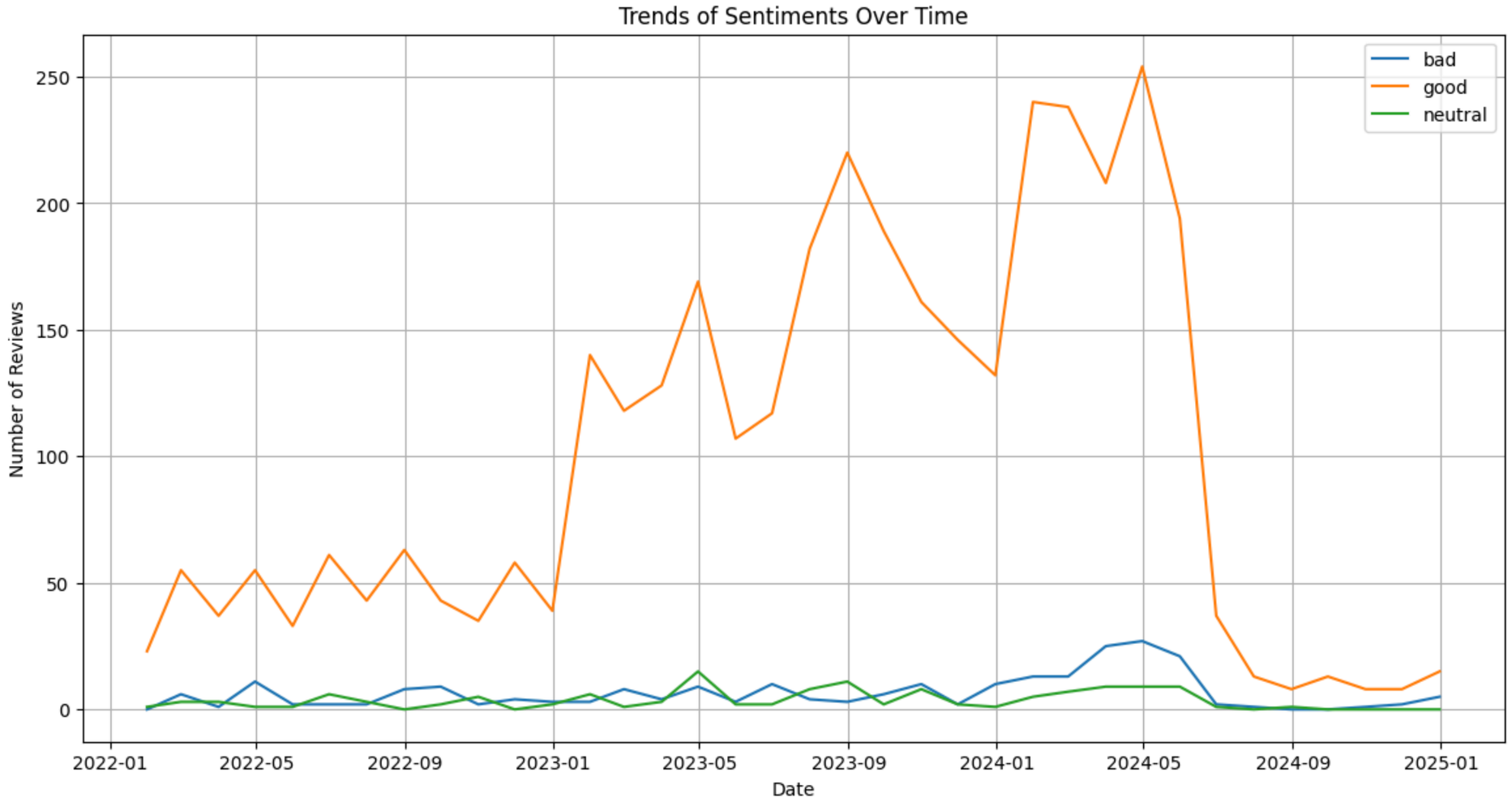
Most of the products got the 5 star rating, which means that the product quality is good and satisfies the user.



The united states is having the highest 5 star rating in world followed by the Italy and France.

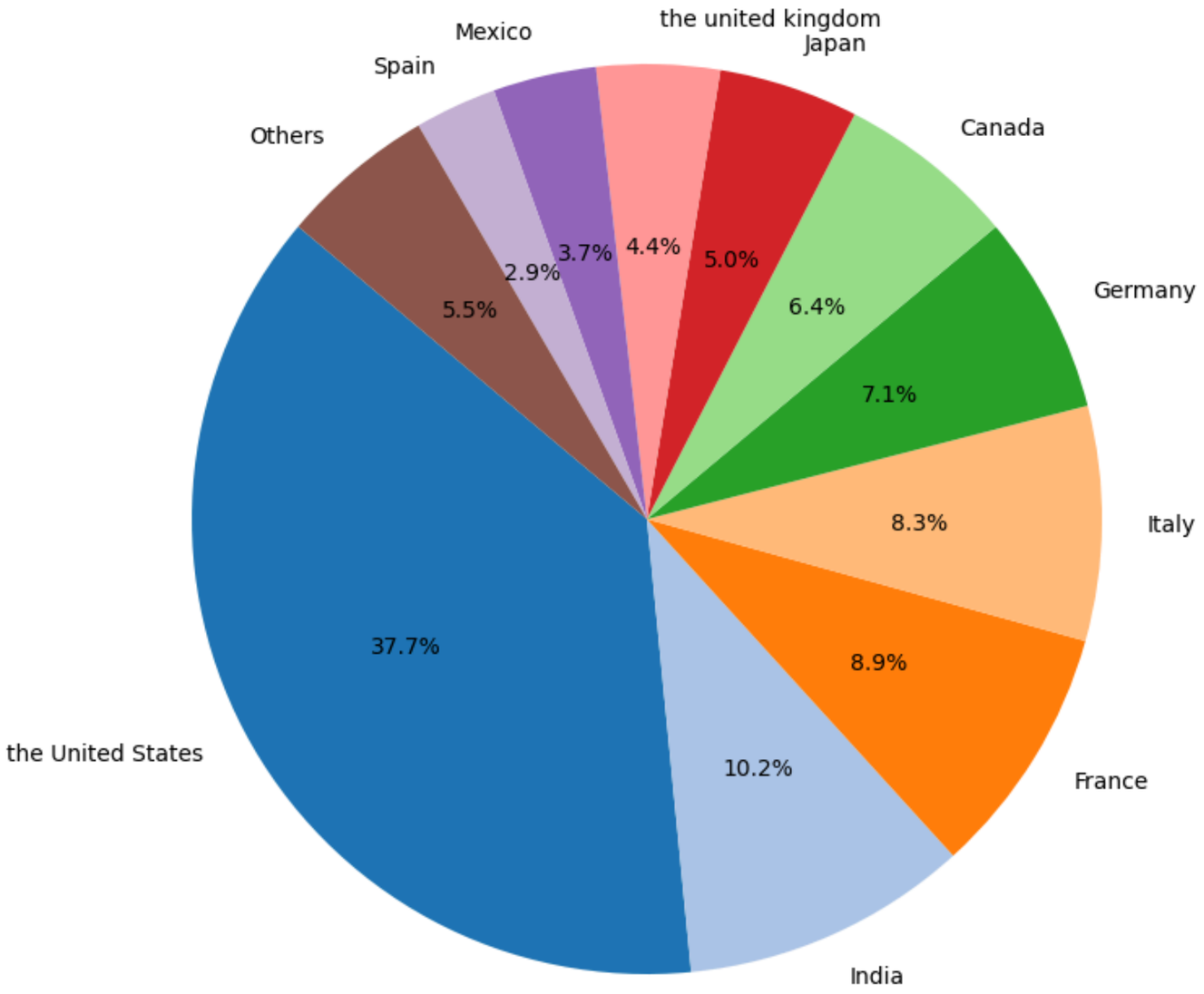


These are the top 10 products sold in the the whole world with the minimum avg rating of 4.3 out of 5

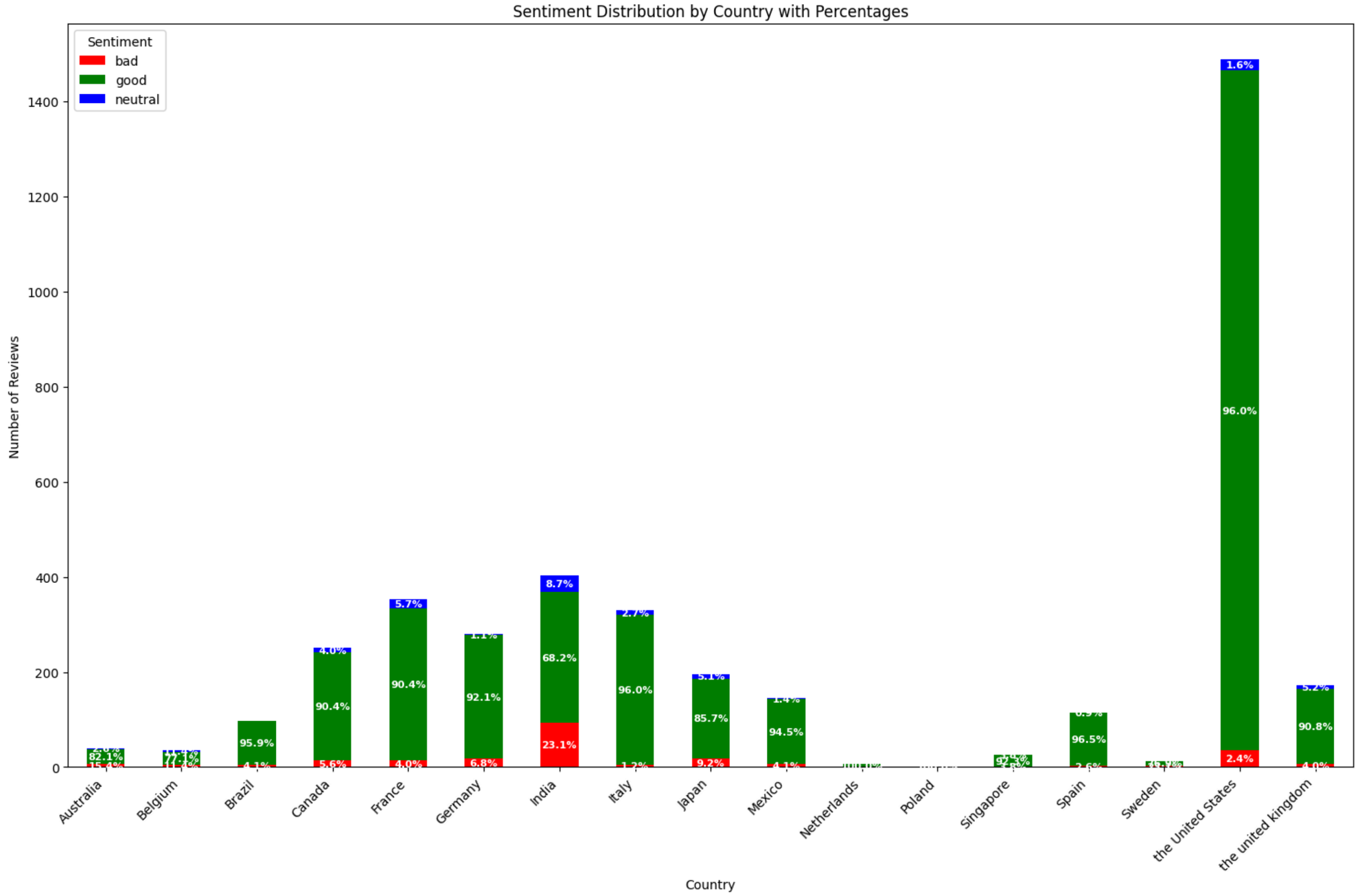


- As you can see that there is a sudden decrease in the number of good reviews from may 2024 to June 2024.
- Both bad and the neutral reviews sentiment are almost equal.
- In may 2024 there is a sudden increase in the number of bad and neutral sentiment.

Country Frequency Distribution



- As in the graph we see that United states is the biggest market for the Intel processors in the world.
- Most of the reviews are coming from the USA only with the overall percentage of the 37.7% followed by India.



- In USA users are more satisfied by the quality of the products with the 96% good reviews and 2.4% bad and 1.6% neutral reviews.
- Users in India not satisfied by the products with the 23.1% bad reviews and 8.7% neutral.

Features offered

After doing the analysis I found that these are the features offered by the Intel to users which they liked most in the Intel processors.

Feature	Frequency	Feature	Frequency
cpu	1390	graphics	312
processor	1054	core	302
good	815	cores	302
performance	777	cooling	292
gaming	769	gen	291
intel	587	time	283
price	488	motherboard	276
great	479	high	251
cooler	423	video	248
games	367	build	236
pc	363	system	232
power	356	gpu	230
fast	314	runs	226
		excellent	222

“Performance, Price, Gaming, Cooler, Power, Fast, Graphics, Core, Gen, motherboard, High, Video, Build GPU, Runs, Excellent”

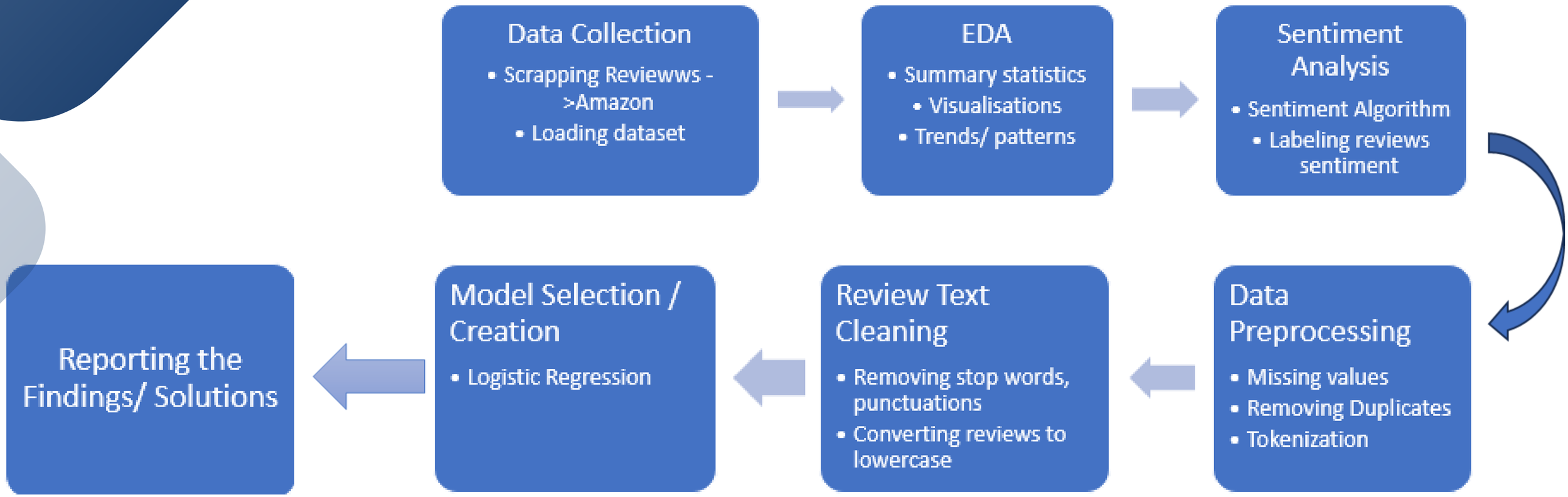
Performance Matric

	precision	recall	f1-score	support
bad	0.99	0.99	0.99	748
good	0.96	0.97	0.96	694
neutral	0.98	0.97	0.98	712
accuracy			0.98	2154
macro avg	0.98	0.98	0.98	2154
weighted avg	0.98	0.98	0.98	2154

Accuracy: 0.9772516248839369

Process Flow

Problem Statement



Technologies used

Contribution

"This is my individual contribution to this project. I completed all tasks myself, seeking help or clarification from our mentor, Mr. Debdyut Hazra, whenever necessary."

Conclusion

- I used selenium to scrape the reviews of Intel Processors from the amazon website from year 2022 to June 2024.
- In this NLP project of Intel Product Sentiment Analysis I have used Logistic Regression machine learning model for classifying the sentiment of the product’s reviews.
- After performing multiple trainings to the model finally I got the accuracy of 0.9772516248839369

Thank You

Intel Unnati Industrial Training Program 2024-2025 Organizers. Thank you for providing such a valuable training experience.

Special thanks to Mr. Debdyut Hazra for his guidance and support throughout the project.

Huge Thanks to My University for bringing this opportunity into our notice.

Thanks to my mentor from University Ms. Nithya Satish