Task 1. Web scraping to gain company insights

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Methodology and Key Findings

- Data Collection: Leveraged BeautifulSoup and Requests in Python to scrape customer reviews from airlinequality.com, capturing a significant dataset from 10 pages of reviews.

- Data Preparation: Employed NLTK for cleaning text data, tokenization, POS tagging, stopwords removal, and lemmatization to prepare data for analysis.

- Analysis Technique: Conducted sentiment analysis with VADER Sentiment Analysis, classifying reviews into positive, neutral, and negative sentiments for in-depth insight.

- Sentiment Analysis Results: A significant portion of reviews expressed positive sentiments, with a smaller percentage of neutral and negative sentiments.

- Positive Feedback Highlights: Customers praised specific aspects of their experience, underscoring British Airways' strengths.

- Areas for Improvement: Negative reviews shed light on specific areas requiring attention, offering opportunities for enhancement.

Results. Visualizations of Customer Feedback
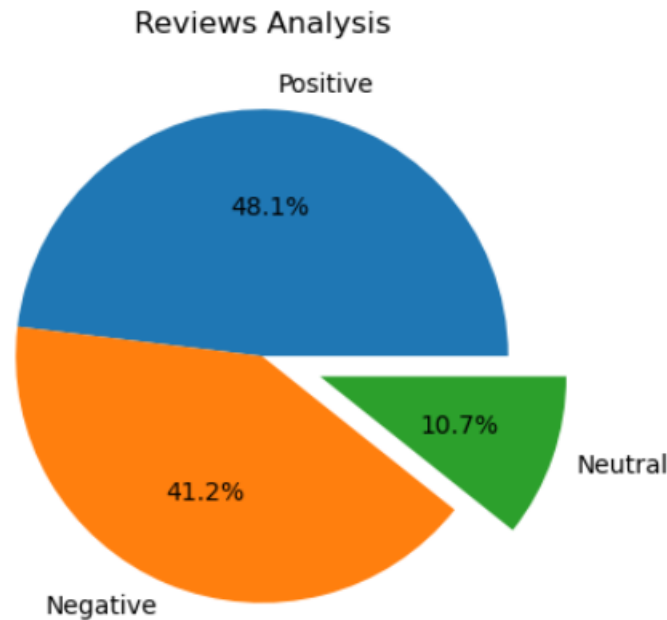
	reviews	Cleaned Reviews	POS tagged	Lemma	Sentiment	Analysis
0	☑ Trip Verified | Boarding was difficult caus...	Trip Verified Boarding was difficult caused b...	[(Trip, n), (Verified, n), (Boarding, n), (dif...	Trip Verified Boarding difficult cause vast ...	0.9343	Positive
1	☑ Trip Verified | Boarding started with a del...	Trip Verified Boarding started with a delay o...	[(Trip, n), (Verified, n), (Boarding, n), (sta...	Trip Verified Boarding start delay minute ev...	0.9509	Positive
2	☑ Trip Verified | Absolutely horrible custome...	Trip Verified Absolutely horrible customer se...	[(Trip, n), (Verified, n), (Absolutely, n), (h...	Trip Verified Absolutely horrible customer s...	-0.7680	Negative
3	Not Verified | BA is not what it used to be! ...	Not Verified BA is not what it used to be As m...	[(Verified, n), (BA, n), (used, v), (much, a),...	Verified BA use much like onboard crew check...	0.9532	Positive
4	☑ Trip Verified | BA First, it's not even the...	Trip Verified BA First it s not even the best...	[(Trip, n), (Verified, n), (BA, n), (First, n)...	Trip Verified BA First even best business cl...	0.4148	Neutral
...	...	...	...	...	...	...
995	☑ Trip Verified | London to Vancouver. Check ...	Trip Verified London to Vancouver Check in ag...	[(Trip, n), (Verified, n), (London, n), (Vanco...	Trip Verified London Vancouver Check agent h...	0.9753	Positive
996	☑ Trip Verified | The First Class zone at Heat...	Trip Verified The First Class zone at Heathro...	[(Trip, n), (Verified, v), (First, n), (Class,...	Trip Verified First Class zone Heathrow Conc...	0.7269	Positive
997	☑ Trip Verified | I had a miserable experienc...	Trip Verified I had a miserable experience in...	[(Trip, n), (Verified, n), (miserable, a), (ex...	Trip Verified miserable experience first cla...	-0.9122	Negative
998	☑ Trip Verified | Leeds Bradford to Las Vegas...	Trip Verified Leeds Bradford to Las Vegas via...	[(Trip, n), (Verified, n), (Leeds, n), (Bradfo...	Trip Verified Leeds Bradford Las Vegas via H...	0.8658	Positive
999	☑ Trip Verified | Dallas to London Heathrow i...	Trip Verified Dallas to London Heathrow in Fi...	[(Trip, n), (Verified, n), (Dallas, n), (Londo...	Trip Verified Dallas London Heathrow First C...	0.6850	Positive