INDEX

Part 1

Case study A- You will be a service quality analyst for British Airways, revealing insights for improving service quality. The study attempts to teach their clients' marketing and service teams (hostesses and stewards) on how to enhance their performance in the air, with the goal of increasing customer happiness. The organization is interested in critically assessing the relationship between reviews and journey duration, as well as their impact on other rating categories such as seat comfort, seat type, traveler type, in-flight entertainment, cabin staff service, and so on.

●   How travel-type affects the service quality.

Explanation -

A) Analysis by travel-type and service

Couple leisure-

Service- Scores range from 1 to 4, indicating that couples may receive varied levels of attentiveness or personalisation in service. Lower ratings may indicate that the service does not consistently satisfy the expectations of couples seeking a more individualized experience.

Value for Money: Scores as low as 1 indicate that some couples do not believe they are getting a good value for their money, which may discourage them from returning or promoting the service.

Solo leisure-

Service- High service scores (5) for solitary travelers indicate that the service satisfies their expectations, maybe because solo travelers demand fewer complex services than groups or families.

Value for Money: High ratings in this category show that solo travelers believe they are getting a good value for their money, which is critical for repeat business.

Business class travelers-

Service -Scores vary, with some low scores indicating that service may not always match the special expectations of business travelers, who anticipate efficiency and professionalism.

Value for money- Low scores (such as 1.0) may suggest that business travelers do not believe the service is worth the money, which might be a serious concern given that this group frequently controls corporate travel decisions.

Average of SeatComfort	review category				
TypeOfTraveller	Negative	Neutral	Positive	review category	Grand Total
Business		2	11.58895036		11.58210799
Couple Leisure	1.666666667		11.59040543		11.58519338
Family Leisure	4		11.59216035		11.59009276
Solo Leisure	2.5		11.58818746		11.582695
TypeOfTraveller				#DIV/0!	#DIV/0!
Grand Total	2.625	2	##########	#DIV/0!	##########

B) Average rating based on seat types

Business class-
Service (2.07): The service rating is noticeably poor, indicating unhappiness among business class guests. This is concerning because Business Class passengers frequently value service quality and personal attention.

Value for Money (2.89): The value for money rating is moderate, implying that some passengers may believe the service is not worth the price. Improving service quality may boost perceived value.

Economy class-
Service (2.10): Service quality is scored similarly to Business Class, implying that Economy travelers may also believe the service does not match their expectations, despite cheaper costs.
Value for Money (2.64): The perception of value for money is lower, as expected given the reduced price of Economy Class tickets. However, enhancing service and cleanliness may aid in changing negative attitudes.

First class
Service - (2.30): Service is scored higher than in other classes, but not as high as one would anticipate for First Class, indicating that there is still potential for improvement.

Value for Money (3.32): First Class passengers feel better value for money, most likely because of improved services and amenities; yet, the lower service rating indicates that expectations are high and not always realized.

SeatType	Average of OverallRating
Business Class	5.353437877
Economy Class	4.414037855
First Class	6.575949367
Premium Economy	5.012244898
Grand Total	4.9208

C) How rating varying for different seat types-

SEAT TYPE	SERVICE	VALUE FOR MONEY
First Class	Higher than other classes but still relatively low, demonstrating that even First Class passengers perceive room for improvement in service quality.	The highest rating indicates that First Class passengers believe they receive the best value for their money, notwithstanding some discontent in other areas.
Business Class	Slightly lower than Economy and Premium Economy, which is a worry because Business Class passengers anticipate better service.	Moderate, indicating that while Business Class passengers value the service, they may not believe it entirely justified the expenditure.
Premium Economy	Comparable to Economy Class, which may frustrate passengers who pay for an upgraded experience.	Similar to Economy, passengers may not notice a major difference in value for money between these classes.
Economy Class	Very comparable to Premium Economy, indicating a constant yet poor quality of service.	The same as Premium Economy, which may indicate that the baseline expectations for value are not being met.

D) How the Aircraft model impacts the service quality ratings-

Aircraft model	Service	Value for money
Airbus	The service grade is moderate, with narrow-body Airbus scoring lower, indicating that service on these planes may be improved.	The ratings show that, while customers enjoy the cleanliness, they may not always believe the service is worth the expense, especially on narrow-body Airbus planes.
Boeing	Service ratings are higher for narrow-body Boeing aircraft, indicating a better service experience than Airbus, but wide-body Boeing falls behind.	Narrow-body Boeing aircraft are thought to provide the best value for money, but wide-body Boeing aircraft are regarded as less favorable.

Average of OverallRating	SeatComfort		
Aircraft	3	4	Grand Total
Airbus A380		4	4
Boeing 767/Airbus A320		7	7
Grand Total	4	7	5.5

E) What aspects of service quality are important to BA's customers.

Average of SeatComfort	SeatComfort							
Recommended			0	1	2	3	4	5	Grand Total
no			0	1	2	3	4	5	1.968387777
yes				1	2	3	4	5	3.982288828
Grand Total			0	1	2	3	4	5	2.846702317

Recommended BA

SAS MINER ANALYSIS-
A)What are the highly used (top 5) topics in each category?

B)

Results - Node: Text Cluster Diagram: import data

File Edit View Window

Clusters

Cluster ID	Descriptive Terms	Frequency	Percentag
1	legroom economy +seat +row club aircraft return entertainment ba +fly +choose +crew +leg food back ...	61	2
2	+delay +drink +screen +departure +minute +passenger +plane +arrive 'london heathrow' heathrow +offer 'cabin crew' staff +h...	69	3(
3	+refund +cancel +ticket â +book +check +customer +day back +bag +airway +year +time +airline +find ...	68	3(
4	'business class' +business class +face british people +look +product +seat lhr +experience +travel +cabin london +lounge ...	29	1

Case study B

You'll be a data scientist at Netflix, helping to uncover and present more potentially popular and good movies. To reach this goal, you'll need to analyze movie reviews based on the IMDB review dataset to better identify customer preferences using SAS Enterprise Miner.

Most popular Genre
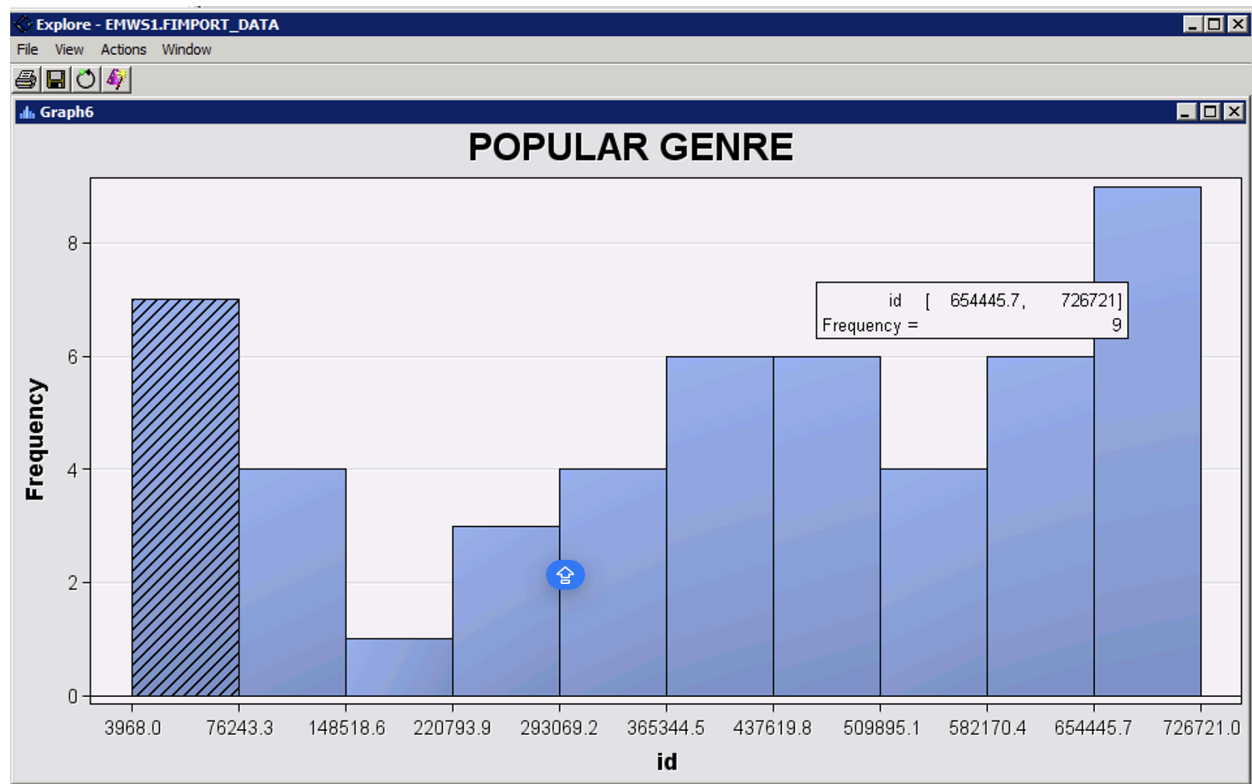
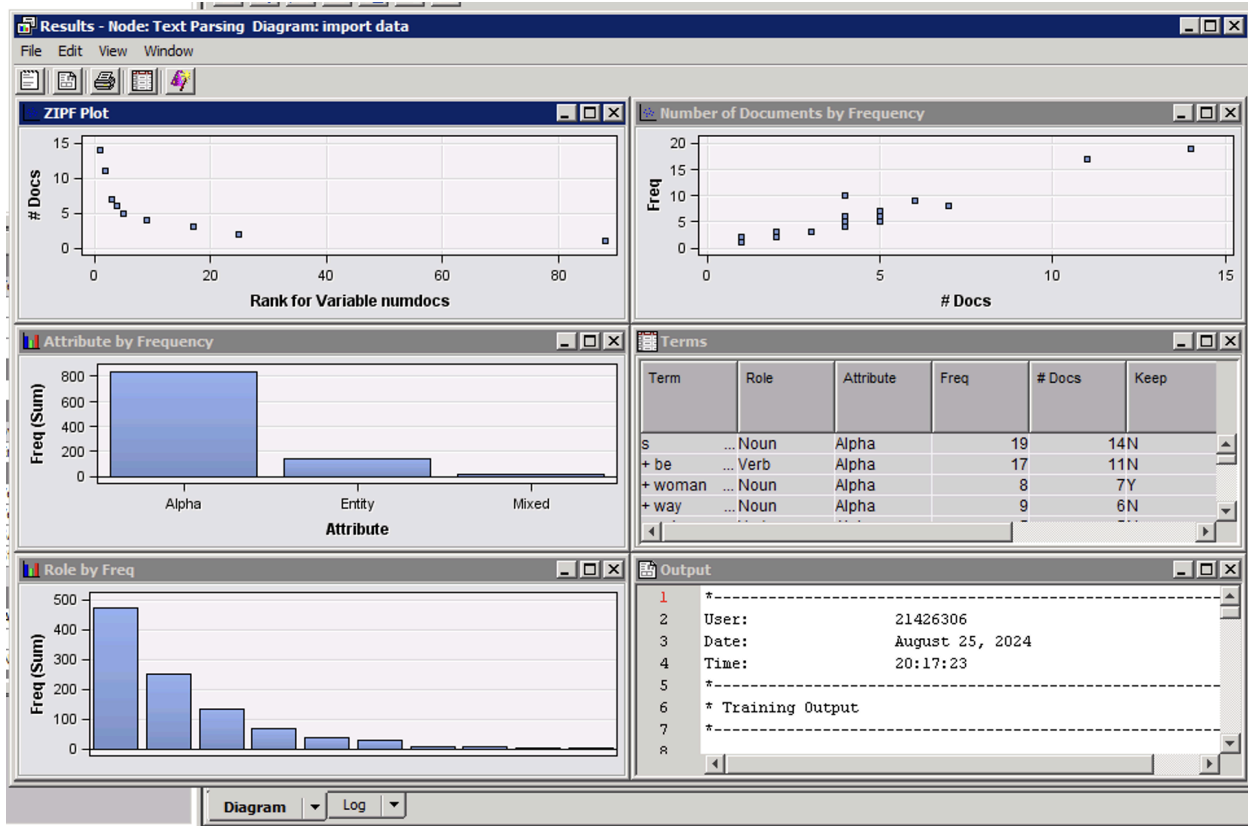### 2. Most used terms in each genre.

Results - Node: Text Parsing Diagram: import data

File Edit View Window

ZIPF Plot

Docs vs Rank for Variable numdocs

Number of Documents by Frequency

Freq vs # Docs

Attribute by Frequency

Freq (Sum) vs Attribute (Alpha, Entity, Mixed)

Terms

Term	Role	Attribute	Freq	# Docs	Keep
s	...Noun	Alpha	19	14	N
+ be	...Verb	Alpha	17	11	N
+ woman	...Noun	Alpha	8	7	Y
+ way	...Noun	Alpha	9	6	N

Role by Freq

Freq (Sum)

Output

```
1    *------------------------------
2    User:           21426306
3    Date:           August 25, 2024
4    Time:           20:17:23
5    *------------------------------
6    * Training Output
7    *------------------------------
8
```

Diagram Log

Correlations between terms-

Results - Node: Text Filter Diagram: import data

File Edit View Window

ZIPF Plot

Docs vs Rank

Number of Documents by Frequency

Freq vs # Docs

Output

```
1    *------------------------------
2    User:           21426306
3    Date:           August 25, 20
4    Time:           20:17:29
5    *------------------------------
6    * Training Output
7    *------------------------------
8
```

Attribute by Frequency

Freq (...) vs Attribute (Alpha, Entity, Mixed) — Drop ■ Keep

Number of Documents by Weight

Weight vs # Docs

Role by Freq

Freq (Sum) — Drop ■ Keep

Terms

Term	Role	Attribute	Status	Weight	Imported Frequency	Freq	Number of Imported Documents
s	...Noun	Alpha	Drop	0.000	19	19	14
+ be	...Verb	Alpha	Drop	0.000	17	17	11
+ woman	...Noun	Alpha	Keep	3.807	8	8	7
+ way	...Noun	Alpha	Drop	0.000	9	9	6