



# DARAZ headphone data analysis of Bangladesh



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Data download from CSV file



Python

Data Cleaning And Profiling



Data Analysis And processing

Load Data and SQL Analysis



SQL Server

Data Visualization using Power BI



product

sound

Amazing

quality

comfort

bass

design

money

Excellent

build

worth

Highly

decent

recommended

durable

performance

audio

first

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Loved

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Word cloud analysis is a popular tool for visualizing text data due to its simplicity and effectiveness. A word cloud, also known as a text or tag cloud, is a visual representation of text data where the size of each word indicates its frequency or importance within a given text. Word cloud analysis is often used for visualizing the most prominent terms in textual data like documents, reviews, articles, or any collection of words.

# Data Analysis By Python

```
import pandas as pd
df = pd.read_csv("headphones_Price_Bangladesh.csv")
df
df.head()
```

	Title	Company_Name	Type	Colour	original_price	discounted_price	Discount	Rating	Location
0	JBL TUNE 110 In-Ear Earphone	JBL	In-Ear	White	1050.0	899	-14%	-186.0	Bangladesh
1	QKZ CK1 HD HiFi Earphone High Sensitivity fone...	QKZ	Earphone	Red	600.0	332	-45%	-256.0	Free Shipping
2	KZ HD9 Earphones HiFi Sport Earbuds Copper Ear...	KZ	Wireless	Black	900.0	265	-71%	-424.0	Free Shipping
3	Lenovo HE05 Bluetooth Wireless Headphones	Lenovo	In-Ear	baby pink	1300.0	510	-61%	-2487.0	Free Shipping
4	Original Creative High Bass Audio Earphone with...	Original	Earphone	Active black	299.0	135	-55%	-144.0	Bangladesh

```
# Calculate the price difference
df['price_diff'] = df['original_price'] - df['discounted_price']

# Summary statistics
print(df.describe())
```

	original_price	discounted_price	Rating	price_diff
count	2774.000000	3080.000000	1032.000000	2774.000000
mean	931.974766	580.897403	-19.698643	375.008291
std	1225.520753	819.004391	92.679287	558.741954
min	60.000000	35.000000	-2487.000000	1.000000
25%	300.000000	164.750000	-10.000000	110.000000
50%	550.000000	320.000000	-3.000000	220.000000
75%	1000.000000	699.000000	-1.000000	440.000000
max	18999.000000	11779.000000	-1.000000	9341.000000

```
import numpy as np
import matplotlib.pyplot as plt
import seaborn as sns
```

- ❖ Different price range segments for headphones in Bangladesh
- ❖ Brand with most product offerings for the Bd Market
- ❖ Brand catering to all different segments (low price range, mid price range, high price range)
- ❖ Most common color and type (on the ear/in the ear etc.) offered by various brands
- ❖ Compare Two Brands based on details
- ❖ Are higher rated headphones always high-priced or expensive? and so on...



# Data Analysis By SQL

```
--***Find top 15 highest brand in daraz***
with cte as (
select t.Company_Name, count(1) as Brancd_count from db_finance..headphones_Price_Bangladesh t
group by t.Company_Name
)
select * from (
select *
, row_number() over(partition by Company_Name order by Brancd_count desc) as rn
from cte
) A
where rn<=15

--***Find brand wise total price***

select * from
(select t.Company_Name, sum(t.dicounted_price) price from db_finance..headphones_Price_Bangladesh t
group by t.Company_Name)v
order by v.price desc

--***Find most popular colour type wise***
select t.Type, t.Colour , count(1)C from db_finance..headphones_Price_Bangladesh t
group by t.Type,t.Colour

--***Find sentiment analysis***
select t.sentiment, count(1)C from db_finance..headphones_Price_Bangladesh t
group by t.sentiment

--***Different price range segments for headphones in Bangladesh***
--Ranges: low = less than 500, medium = 500 - 1500, high = 1500+

select * from
(select v1.Price_range, count(1) Number_of_earphone, sum(v1.dicounted_price) Total_Price from
(select t.Company_Name,
case when t.dicounted_price < 500 then 'low'
when t.dicounted_price between 500 and 1500 then 'medium'
when t.dicounted_price > 1500 then 'high'
end price_range, t.dicounted_price
from db_finance..headphones_Price_Bangladesh t)v1
group by v1.price_range)v2
order by v2.Number_of_earphone desc
```

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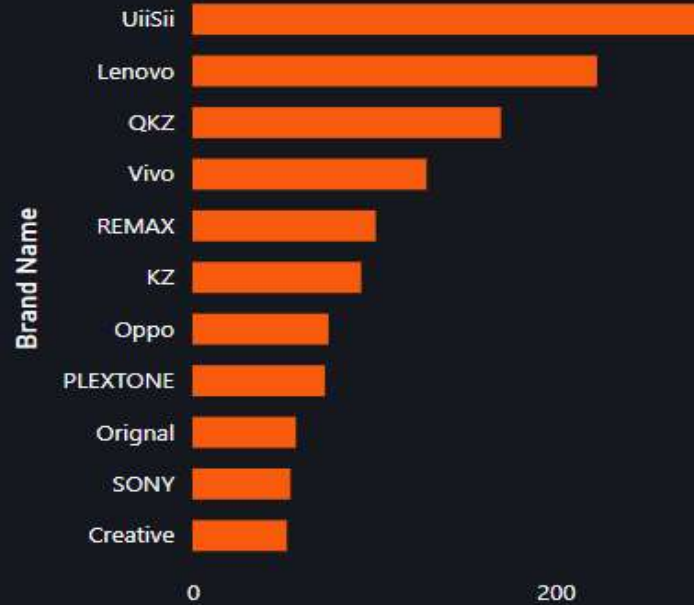
Different price range segments for headphones



Word Cloud of Customer Reviews



Top 10 Brand with most headphone offerings in Daraz BD



Sentiment analysis by Rating



Sell By Type



# THANK YOU

<https://tariqulismail.com/>  
<https://www.linkedin.com/in/tariqulismail/>  
<https://github.com/tariqulismail>