INTRODUCTION-

The dataset captures phone usage patterns among individuals in metropolitan cities across India. It comprises over 17,000 records and 16 distinct columns, including metrics such as Screen Time and Monthly Recharge Amount. The primary objective of this analysis is to explore usage behaviours and spending patterns across different age groups, ranging from 15 to 60 years old.

Data is collected from Kaggle. → Licence.

DATA CLEANING-

➔ First checked if the data has any bias. Data taken from individuals are unbiased and equally taken.

Users Location	Column Labels Female	Male	Other	Grand Total
Jaipur	626	593	605	1824
Pune	623	610	582	1815
Chennai	598	595	597	1790
Kolkata	608	581	600	1789
Bangalore	588	590	608	1786
Ahmedabad	579	616	590	1785
Delhi	614	568	593	1775
Mumbai	586	556	580	1722
Lucknow	590	545	565	1700
Hyderabad	557	571	572	1700
Grand Total	**5969**	**5825**	**5892**	**17686**

➔ The brands and the operating systems were differing. Corrected it by using a formula

```
=IF(E2 = "Nokia", "Feature", IF(E2 = "Apple", "iOS", "Android"))
```

OS	Users
Android	8851
iOS	8835
Grand Total	**17686**

OS	Users
Android	14095
Feature	1816
iOS	1775
Grand Total	**17686**

Brands	Users
Nokia	1816
OnePlus	1807
Xiaomi	1803
Vivo	1797
Apple	1775
Samsung	1764
Realme	1762
Google Pixel	1729
Motorola	1717
Oppo	1716
Grand Total	**17686**

In India Nokia only sells 'Feature' phones, 'iOS' is only available with 'Apple'.

ANALYSIS AND VISUALIZATION-

➔ Created Pivot Table for each column.

Applied conditional formatting from largest to smallest by age.

➔ Using 'SUMIFS' to calculate the metrics in different age groups – 50s, 40s, 30s, 20s and teens.

```
=SUMIFS(L$4:L$49,$K$4:$K$49, ">=50")

=SUMIFS(L$4:L$49,$K$4:$K$49, ">=40", $K$4:$K$49, "<50")

=SUMIFS(L$4:L$49,$K$4:$K$49, ">=30", $K$4:$K$49, "<40")

=SUMIFS(L$4:L$49,$K$4:$K$49, ">=20", $K$4:$K$49, "<30")

=SUMIFS(L$4:L$49, $K$4:$K$49, "<20")
```

AGE	USERS	SCREEN TIME (Hrs)	SOCIAL MEDIA (Hrs)	STREAMING TIME (Hrs)	GAMING TIME (Hrs)	DATA USAGE (GB)	CALLS (MINS)	APPS	E COM SPEND	MONTHLY RECHARGE
>=50	4,321.00	27,984.80	13,912.70	18,443.80	10,819.20	1,09,436.80	6,46,455.80	4,50,660.00	₹ 2,19,74,511.00	₹ 44,89,856.00
40 - 49	3,818.00	24,969.50	12,467.30	16,238.20	9,426.10	96,329.70	5,84,582.00	3,96,217.00	₹ 1,95,28,123.00	₹ 39,64,948.00
30-39	3,791.00	25,103.70	12,289.90	16,305.50	9,477.00	95,967.60	5,74,352.90	3,95,561.00	₹ 1,91,55,734.00	₹ 39,81,367.00
20-29	3,815.00	25,018.90	12,510.90	15,891.70	9,428.80	98,427.10	5,73,997.70	4,03,344.00	₹ 1,94,27,269.00	₹ 39,55,336.00
<20	1,941.00	12,702.30	6,340.60	8,297.20	4,902.50	49,262.30	2,98,375.40	2,03,906.00	₹ 96,83,332.00	₹ 20,51,195.00

➔ Created Pivot Chart to identify buying patterns.
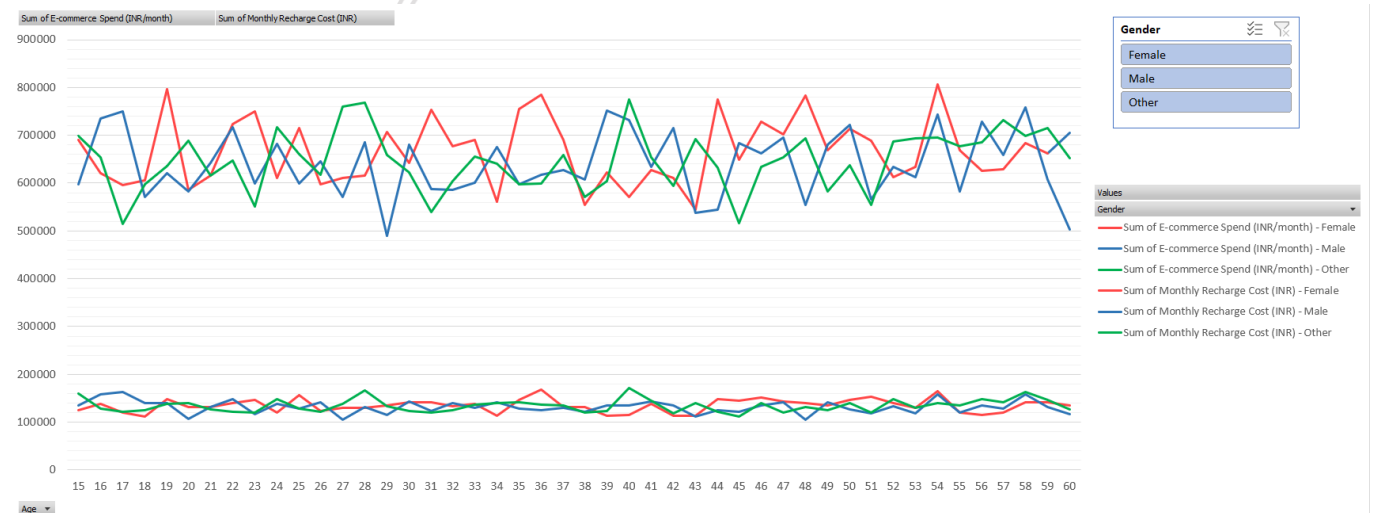
→ Created Pivot Chart for Primary Use Case.
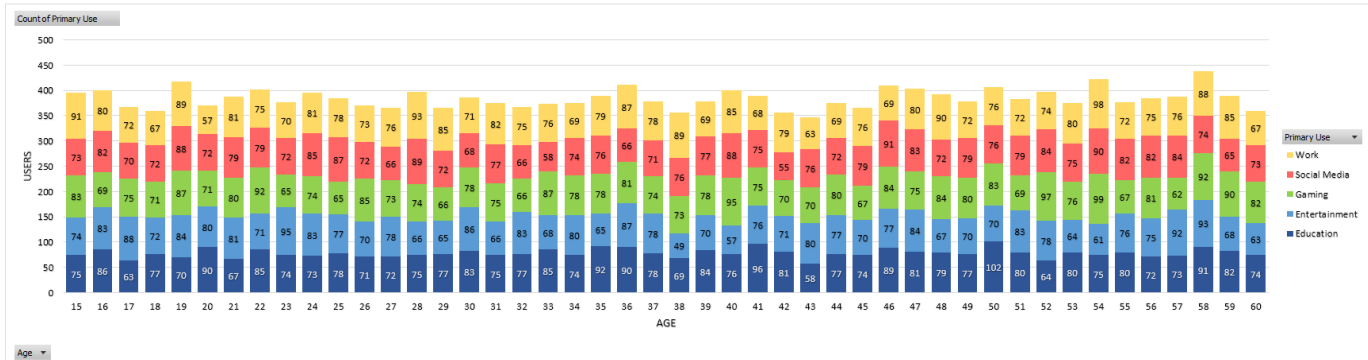
CONCLUSION-

The findings from the dataset reveal notable differences in phone usage and spending patterns across various age groups. Individuals aged 58 exhibit the highest metrics, while those aged 43 show the lowest engagement. Overall, users in their 50s spend significantly more time on their phones than other age groups, whereas individuals in their 40s, 30s, and 20s display relatively similar usage patterns.

Spending Behaviour:

- E-commerce purchases are led by female users, followed by other gender identities, with male users spending the least.

- Monthly recharge expenditures remain fairly linear across all groups.

Primary Usage Trends:

- People in their 50s dominate phone usage, unexpectedly leading not just in general engagement but also in Education and Gaming-related activities.

Market Leadership:

- Nokia leads the market, maintaining a strong presence even after not being a smartphone.

- Chinese brands dominate overall, showing widespread adoption among consumers.