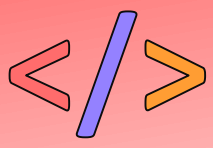
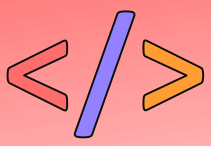



```
-- Q1) Calculate the key metrics like total revenue, Average revenue per user (ARPU),
Monthly Active users (MAU), Total Unsubscribed users (TUnU)

select
'Total Revenue' as Key_Metric,
concat(sum(AtliQo_revenue_crores), ' cr') as Value
from fact_atliqo_metrics
Union
select
'ARPU',  cast(round(avg(arpu),2) As Varchar)
from fact_atliqo_metrics
Union
select
'MAU', concat(round(avg(active_users_lakhs),2),' lakh')
from fact_atliqo_metrics
Union
Select
'TUnU', concat(sum(unsubscribed_users_lakhs),' lakh')
from fact_atliqo_metrics

/* Output
Key_Metric          Value
ARPU                200.74
TAU                 13.48 lakh
Total Revenue       3187.36 cr
TUnU                125.9 lakh
*/

-- Q2) Monthly Revenue Before and After 5G

select DATENAME(MONTH, f.date) as month,
sum(f.AtliQo_revenue_crores) as [Monthly_Revenue (cr)], d.[before/after_5g]
from fact_atliqo_metrics f left join dim_date d on f.date = d.date
group by DATENAME(MONTH, f.date), d.[before/after_5g]

/*
Month       Monthly_Revenue (cr)      before/after_5g
August              419.08                  After 5G
July                412.76                  After 5G
June                357.56                  After 5G
September           400.26                  After 5G
April               407.19                  Before 5G
February            425.69                  Before 5G
January             354.37                  Before 5G
March               410.45                  Before 5G
*/
```



```
-- Q3) Top 5 Cities by Revenue

select Top 5 c.city_name, sum(a.atliqo_revenue_crores) as [City_Revenue (cr)]
from fact_atliqo_metrics a
left join dim_cities c on a.city_code = c.city_code
group by c.city_name
order by sum(a.atliqo_revenue_crores) desc

/*
city_name  City_Revenue (cr)
Mumbai          489.55
Delhi           387.2
Kolkata         384.39
Bangalore       338.61
Chennai         296.37
*/


-- Q4) Bottom 5 Cities by Revenue

select Top 5 c.city_name as City_name, sum(a.atliqo_revenue_crores) as
[City_Revenue (cr)]
from fact_atliqo_metrics a
left join dim_cities c on a.city_code = c.city_code
group by c.city_name
order by sum(a.atliqo_revenue_crores) asc


/*
City_name  City_Revenue (cr)
Raipur          31.54
Gurgaon         54.65
Chandigarh      61.19
Coimbatore      91.39
Patna           98.2
*/
```

*-- Q5) Total Revenue, ARPU, MAU, TUnU for each city along with percent of change before and after 5G

```
--creating a cte to calculate the metrics for pre 5G period
with cte1 as (
select C.City_name,
sum(AtliQo_revenue_crores) Before_5G_Revenue,
avg(arpu) as Before_5G_ARPU,
avg(active_users_lakhs) as Before_5G_MAU,
sum(unsubscribed_users_lakhs) as Before_5G_TUnU
from fact_atliqo_metrics A
left join dim_cities C on A.city_code = C.city_code
left join dim_date D on A.date = D.date
where [before/after_5g] = 'Before 5G'
group by C.city_name
),
--creating a cte to calculate the metrics for post 5G period
cte2 as (
select C.City_name, sum(AtliQo_revenue_crores) After_5G_revenue,
avg(arpu) as After_5G_ARPU, avg(active_users_lakhs) as  After_5G_MAU,
sum(unsubscribed_users_lakhs) as  After_5G_TUnU
from fact_atliqo_metrics A
left join dim_cities C on A.city_code = C.city_code
left join dim_date D on A.date = D.date
where [before/after_5g] = 'After 5G'
group by C.city_name
)
--combining both cte's and calculating the % change
select cte1.City_name,
--Revenue
concat(Before_5G_Revenue/10000000,' cr') as [Revenue Before 5G (cr)],
concat(After_5G_revenue/10000000,' cr') as [Revenue After 5G (cr)],
concat(round(((After_5G_revenue-Before_5G_Revenue)/Before_5G_Revenue *
100),2),'%') as [Revenue % change],
--ARPU
Before_5G_ARPU, After_5G_ARPU, concat(round(((After_5G_ARPU-
Before_5G_ARPU)/Before_5G_ARPU *100),2),'%') as [ARPU % change],
--MAU
concat(Before_5G_MAU/100000,' lakh') as [MAU Before 5G (lakhs)],
concat(After_5G_MAU/100000,' lakh') as [MAU After 5G (lakhs)],
concat(round(((After_5G_MAU-Before_5G_MAU)/Before_5G_MAU *100),2), '%') as
[MAU % change],
--TUnU
concat(Before_5G_TUnU/100000,' lakh') as [TUnU Before 5G (lakhs)],
concat(After_5G_TUnU/100000,' lakh') as [TUnU After 5G (lakhs)],
concat(round(((After_5G_TUnU-Before_5G_TUnU)/Before_5G_TUnU * 100),2),'%') as
[TUnU % change]
from cte1 join cte2 on cte1.city_name = cte2.city_name
order by cte1.city_name
```

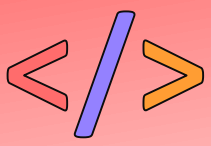
/*

City_name	Revenue Before 5G (cr)	Revenue After 5G (cr)	Revenue % change	Before_5G_ARPU	After_5G_ARPU	ARPU % change
Ahmedabad	94.49 cr	92.58 cr	-2.02%	176.25	214.75	21.84%
Bangalore	168.67 cr	169.94 cr	0.75%	174.75	209	19.60%
Chandigarh	30.68 cr	30.51 cr	-0.55%	182.5	200.75	10%
Chennai	150.13 cr	146.24 cr	-2.59%	203	197.75	-2.59%
Coimbatore	45.67 cr	45.72 cr	0.11%	200	216.5	8.25%
Delhi	196.38 cr	190.82 cr	-2.83%	181.5	214.5	18.18%
Gurgaon	27.12 cr	27.53 cr	1.51%	183.5	214.5	16.89%
Hyderabad	118.63 cr	117.1 cr	-1.29%	196.5	217.25	10.56%
Jaipur	70.09 cr	70.78 cr	0.98%	195	209.25	7.31%
Kolkata	192.55 cr	191.84 cr	-0.37%	183.75	193	5.03%
Lucknow	64.83 cr	66.01 cr	1.82%	203.25	219.5	8%
Mumbai	244.4 cr	245.15 cr	0.31%	196.75	231	17.41%
Patna	48.74 cr	49.46 cr	1.48%	192.5	231.5	20.26%
Pune	129.64 cr	130.12 cr	0.37%	200	174.25	-12.88%
Raipur	15.68 cr	15.86 cr	1.15%	184.25	225.25	22.25%

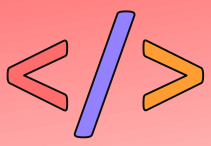
MAU Before 5G (lakhs)	MAU After 5G (lakhs)	MAU % change	TUnU Before 5G (lakhs)	TUnU After 5G (lakhs)	TUnU % change
13.3775 lakh	10.845 lakh	-18.93%	3.32 lakh	3.86 lakh	16.27%
24.135 lakh	20.77 lakh	-13.94%	5.71 lakh	6.89 lakh	20.67%
4.2125 lakh	4.0025 lakh	-4.99%	1.03 lakh	1.5 lakh	45.63%
18.4775 lakh	18.5425 lakh	0.35%	5.17 lakh	7.08 lakh	36.94%
5.7925 lakh	5.255 lakh	-9.28%	1.55 lakh	1.96 lakh	26.45%
27.0425 lakh	22.275 lakh	-17.63%	7.7 lakh	8.98 lakh	16.62%
3.685 lakh	3.2025 lakh	-13.09%	0.91 lakh	1.02 lakh	12.09%
15.15 lakh	14.0175 lakh	-7.48%	3.86 lakh	5.33 lakh	38.08%
9.035 lakh	8.535 lakh	-5.53%	2.23 lakh	3.4 lakh	52.47%
26.0775 lakh	24.84 lakh	-4.75%	6.93 lakh	8.86 lakh	27.85%
7.9275 lakh	8.1375 lakh	2.65%	1.72 lakh	3.06 lakh	77.91%
31.335 lakh	26.8375 lakh	-14.35%	9.58 lakh	8.37 lakh	-12.63%
6.3625 lakh	5.3375 lakh	-16.11%	1.71 lakh	1.89 lakh	10.53%
16.1275 lakh	19.04 lakh	18.06%	4.34 lakh	6.74 lakh	55.30%
2.145 lakh	1.7875 lakh	-16.67%	0.57 lakh	0.63 lakh	10.53%

*/

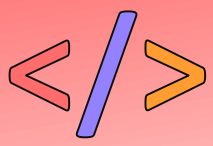
By Sanjay C S



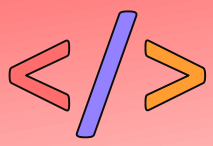

```
-- Q6) Market share by different companies

select Company, round(avg([market_share_%]),2) as [Total_Market_share_%]
from fact_market_share
group by company
order by avg([market_share_%]) desc

/*
Company     Total_Market_share_%
PIO                 35.42
Britel              27.49
AtliQo              19.56
DADAFONE            10.31
Others              7.23
*/

-- Q7) Market share of each company before 5G and After 5G

with cte1 as (select company, [market_share_%] as msb5
from fact_market_share f
left join dim_date d on f.date = d.date
where d.date in (select date
from dim_date
where [before/after_5g] = 'Before 5G')
),
cte2 as (select company, [market_share_%] as msa5
from fact_market_share f
left join dim_date d on f.date = d.date
where d.date in (select date
from dim_date
where [before/after_5g] = 'After 5G')
)
select cte1.company, round(avg(msb5),2) as [Market_share%_Before_5G],
round(avg(msa5),2) as Market_share_After_5G,
concat(round((avg(msa5)-avg(msb5))/avg(msb5)*100,2),'%') as [% change]
from  cte1 join cte2 on cte1.company = cte2.company
group by cte1.company
order by avg(msa5) desc

/*
Company     Market_share%_Before_5G      Market_share_After_5G   % change
PIO                 35.11                       35.72               1.72%
Britel              27.26                       27.71               1.67%
AtliQo              20.24                       18.88               -6.69%
DADAFONE            10.22                       10.39               1.71%
Others              7.17                        7.29                1.7%
*/
```


```
--Now Lets Analyze the metrics based on different plans

-- Q8) Total Revenue by plans

select p.plans, d.plan_description, sum(p.plan_revenue_crores) as [Total_Revenue
(cr)]
from fact_plan_revenue p
left join dim_plan d
on p.plans = d.[plan]
group by p.plans, d.plan_description
order by [Total_Revenue (cr)] desc

/*
Plans                    plan_description                                  Total_Revenue (cr)
P1      Smart Recharge Pack (2 GB / Day Combo For 3 months)                419.93
P2      Super Saviour Pack (1.5 GB / Day Combo For 56 days)                297.53
P3      Elite saver Pack (1 GB/ Day) Valid: 28 Days                        261.54
P4      Mini Data Saver Pack (500 MB/ Day) Valid: 20 Days                  195.22
P11     Ultra Fast Mega Pack (3GB / Day Combo For 80 days)                 185.95
P5      Rs. 99 Full Talktime Combo Pack                                    165.61
P6      Xstream Mobile Data Pack: 15GB Data | 28 days                      124.37
P12     Ultra Duo Data Pack (1.8GB / Day Combo For 55 days )               116.13
P7      25 GB Combo 3G / 4G Data Pack                                      73.8
P8      Daily Saviour (1 GB / Day) validity: 1 Day                         43.43
P13     Mini Ultra Saver Pack (750 MB/Day for 28 Days)                     31.45
P9      Combo TopUp: 14.95 Talktime and 300 MB data                        22.68
P10     Big Combo Pack (6 GB / Day) validity: 3 Days                       13.11
*/
```


```
-- Q9) Top 3 Plans by revenue before 5G

select top 3 plans, sum(plan_revenue_crores) as [Plan_Revenue_Before_5G (cr)]
from fact_plan_revenue p
left join dim_date d
on p.date = d.date
where month_name in ('Jan', 'Feb', 'Mar', 'Apr')
group by plans
order by [Plan_Revenue_Before_5G (cr)] Desc

/*
Plans        Plan_Revenue_Before_5G (cr)
P1                        181.27
P2                        148.8
P3                        131.93
*/

-- Q10) Top 3 plans by revenue After 5G

select top 3 plans, sum(plan_revenue_crores) as [Plan_revenue_After_5G (cr)]
from fact_plan_revenue p
left join dim_date d
on p.date = d.date
where [before/after_5g] = 'After 5G'
group by plans
order by [Plan_revenue_After_5G (cr)] Desc

/*
Plans        Plan_revenue_After_5G (cr)
P1                238.66
P11               185.95
P2                148.73
*/
```


```
-- Q11) Top 3 Cities by Revenue for each plan Before and After 5G

-- creating a cte to calculate the metrics for pre 5G plans
with B5GCityRank as (
select c.city_name, p.plans, sum(plan_revenue_crores) as B5GRevenue,
row_number() over (partition by p.plans order by sum(plan_revenue_crores) desc) as
rn
from fact_plan_revenue p
Left join dim_cities c on p.city_code = c.city_code
left join dim_date d on p.date = d.date
where[before/after_5g] = 'Before 5G'
group by c.city_name, p.plans
),
--creating a cte to calculate the metrics for post 5G plans
A5GCityRank as (
select c.city_name, p.plans, sum(plan_revenue_crores) as A5GRevenue,
ROW_NUMBER() over (partition by p.plans order by sum(plan_revenue_crores) desc) as
rn
from fact_plan_revenue p
left join dim_cities c on p.city_code = c.city_code
left join dim_date d on p.date = d.date
where [before/after_5g] = 'After 5G'
group by c.city_name, plans
)
--combining both cte's and finding if the ranking of cities is same or different as before
select a.plans, b.city_name as Before_5G_City, b.B5GRevenue as
[Before_5G_Revenue(cr)],
a.city_name as After_5G_City, a.A5GRevenue as [After_5G_Revenue(cr)],
case when b.city_name = a.city_name then 'same' else 'different' end as [Same city or
Different]
from B5GCityRank b
--full outer
Join A5GCityRank a on b.rn = a.rn and a.plans = b.plans
where a.rn <=3
order by a.plans, a.rn
/*
```

plans	Before_5G_City	Before_5G_Revenue(cr)	After_5G_City	After_5G_Revenue(cr)	Same city or Different
p1	Mumbai	25.38	Mumbai	35.72	same
p1	Kolkata	21.7	Kolkata	29.61	same
p1	Delhi	20.51	Delhi	29.48	same
p2	Mumbai	20.53	Mumbai	23	same
p2	Kolkata	19.17	Delhi	18.43	different
…					
p6	Kolkata	9.81	Kolkata	6.04	same
p6	Bangalore	9.11	Delhi	5.77	different
p7	Mumbai	8.13	Bangalore	2.24	different
p7	Delhi	7.62	Delhi	2.02	same
p7	Kolkata	7.19	Kolkata	1.91	same

```
/*
```