

```
CREATE DATABASE CHURN_ANALYSIS
```

```
SELECT * FROM dbo.telco
```

```
select count(*) as total_rows  
from telco
```

```
select TOP 10 *  
from telco
```

```
SELECT Gender, Count(*) as TotalCount,  
Count(*) * 1.0 / (Select Count(*) from telco) as Percentage  
from telco  
Group by Gender;
```

```
SELECT Contract, Count(Contract) as TotalCount,  
Count(Contract) * 1.0 / (Select Count(Contract) from telco) as Percentage  
from telco  
Group by Contract
```

"null values"

```
SELECT  
    COUNT(*) AS total_rows,  
    SUM(CASE WHEN TotalCharges IS NULL THEN 1 ELSE 0 END) AS null_totalcharges  
FROM telco;
```

"DELETE NULLS"

```
DELETE FROM telco  
WHERE TotalCharges IS NULL;
```

"DELETE NULLS"

```
SELECT  
    COUNT(*) AS total_rows,  
    SUM(CASE WHEN TotalCharges IS NULL THEN 1 ELSE 0 END) AS null_totalcharges  
FROM telco;
```

```
SELECT COUNT(*)  
FROM telco  
WHERE TotalCharges IS NULL;
```

"CHECK TARGET VARIABLE"

```
SELECT Churn,  
COUNT(*) AS total,  
ROUND(COUNT(*) * 100.0 / SUM(COUNT(*)) OVER(), 2) AS percentage  
FROM telco  
GROUP BY Churn;
```

"churn rate"

```
SELECT
    COUNT(*) AS total_customers,

    SUM(CAST(Churn AS INT)) AS churned_customers,

    ROUND(
        SUM(CAST(Churn AS INT)) * 100.0 / COUNT(*),
        2
    ) AS churn_rate

FROM telco;
```

"leaving the by contract"

```
SELECT
    Contract,
    COUNT(*) AS total,
    SUM(CAST(Churn AS INT)) AS churned,
    ROUND(SUM(CAST(Churn AS INT))*100.0/COUNT(*),2) AS churn_rate
FROM telco
GROUP BY Contract;
```

"tenure by age"

```
SELECT
    CASE
        WHEN tenure < 6 THEN '0-6 months'
        WHEN tenure < 12 THEN '6-12 months'
        ELSE '1+ year'
    END AS tenure_group,

    COUNT(*) AS total,
    SUM(CAST(Churn AS INT)) AS churned,
    ROUND(SUM(CAST(Churn AS INT))*100.0/COUNT(*),2) AS churn_rate
FROM telco
GROUP BY
    CASE
        WHEN tenure < 6 THEN '0-6 months'
        WHEN tenure < 12 THEN '6-12 months'
        ELSE '1+ year'
    END;
```

"by payment method"

```
SELECT
```

```
PaymentMethod,  
COUNT(*) AS total,  
SUM(CAST(Churn AS INT)) AS churned,  
ROUND(SUM(CAST(Churn AS INT))*100.0/COUNT(*),2) AS churn_rate  
FROM telco  
GROUP BY PaymentMethod;
```

"by internet service"

```
SELECT  
InternetService,  
COUNT(*) AS total,  
SUM(CAST(Churn AS INT)) AS churned,  
ROUND(SUM(CAST(Churn AS INT))*100.0/COUNT(*),2) AS churn_rate  
FROM telco  
GROUP BY InternetService;
```

```
SELECT TOP 20 *  
FROM telco  
WHERE Churn = 1  
AND Contract = 'Month-to-month'  
AND tenure < 6  
ORDER BY TotalCharges DESC;
```