1. Average CLTV (Customer Lifetime Value)

Q. What is the average lifetime value of a customer based on their monthly charges and tenure?

```
#Average CLTV (from Monthly*Tenure) =
AVERAGEX(
    VALUES( 'dim_customer'[CustomerID] ),
    CALCULATE(
        SUMX(
            'fact_subscriptions',
            'fact_subscriptions'[MonthlyCharges] * 'fact_subscriptions'[TenureMonths]
        )
    )
)
```

---

2. Active Customers

Q. How many customers are currently active and have not churned?

```
Active Customers =
CALCULATE(
    DISTINCTCOUNT('dim_customer'[CustomerID]),
    'fact_subscriptions'[ChurnFlag] = "no"
)
```

---

3. Average Revenue per User (ARPU)

Q. What is the average revenue generated per active customer?

```
ARPU =
DIVIDE(
    SUM('fact_subscriptions'[TotalCharges]),
    [1#Total Customers]
)
```

---

4. Churn Rate %

Q. What percentage of total customers have churned?

```
Churn Rate % =
DIVIDE(
```

```
    CALCULATE(
        DISTINCTCOUNT('dim_customer'[CustomerID]),
        'fact_subscriptions'[ChurnFlag] = "yes"
    ),
    [1#Total Customers]
)
```

---

5. Churned Customers

Q. How many customers have churned (i.e., stopped using the service)?

```
Churned Customers =
CALCULATE(
    DISTINCTCOUNT('dim_customer'[CustomerID]),
    'fact_subscriptions'[ChurnFlag] = "yes"
)
```

---

6. Monthly Recurring Revenue (MRR)

Q. What is the total recurring monthly revenue generated from all active customers?

```
MRR = SUM('fact_subscriptions'[MonthlyCharges])
```

---

7. Total Customers

Q. How many unique customers does the company have in total?

```
Total Customers = DISTINCTCOUNT('dim_customer'[CustomerID])
```

---

8. Average Tenure

Q. What is the average duration (in months) that customers stay subscribed?

```
Average Tenure =
AVERAGE ( 'fact_subscriptions'[TenureMonths] )
```

---

9. Churned Revenue

Q. How much total revenue has been lost from churned customers?

```
Churned Revenue =
CALCULATE(
    SUM('fact_subscriptions'[TotalCharges]),
    'fact_subscriptions'[ChurnFlag] = "Yes"
```

```
)
```

---

10. Total Revenue

Q. What is the total revenue earned from all customers?

```
Total Revenue =
SUM ( 'fact_subscriptions'[TotalCharges] )
```

---

11. Dependents %

Q. What percentage of customers have dependents?

```
Dependents % =
DIVIDE (
    COUNTROWS ( FILTER ( 'dim_customer', 'dim_customer'[Dependents]= "Yes" ) ),
    [1#Total Customers],
    0)
```

---

12. Partner %

Q. What percentage of active customers have partners?

```
Partner % =
DIVIDE (
    COUNTROWS ( FILTER ( 'dim_customer', 'dim_customer'[Partner] = "Yes" ) ),
    [1#Active Customers],
    0)
```

---

13. Senior Citizen %

Q. What percentage of total customers are senior citizens?

```
Senior Citizen % =
DIVIDE (
    COUNTROWS ( FILTER ( 'dim_customer', 'dim_customer'[SeniorCitizen] = "yes" ) ),
    [1#Total Customers],
    "no"
)
```

---

14. Internet Service %

Q. What percentage of total services include Internet service?

```
Internet Service % =
DIVIDE (
    COUNTROWS ( FILTER ( 'dim_services', 'dim_services'[InternetService] <> "No" ) ),
    [5#total services],
    0
)
```

---

15. Online Security %

Q. What percentage of customers subscribe to online security services?

```
Online Security % =
DIVIDE (
    COUNTROWS ( FILTER ( 'dim_services', 'dim_services'[OnlineSecurity] = "Yes" ) ),
    [5#total services],
    0
)
```

---

16. Streaming %

Q. What percentage of customers use streaming services (TV or Movies)?

```
Streaming % =
VAR CustomersWithStreaming =
    DISTINCT (
        SELECTCOLUMNS (
            FILTER (
                'dim_services',
                'dim_services'[StreamingTV] = "Yes"
                || 'dim_services'[StreamingMovies] = "Yes"
            ),
            "CustomerID", 'dim_services'[ServiceKey]
        )
    )
RETURN
DIVIDE (
    COUNTROWS(CustomersWithStreaming),
    [5#total services],
    0
)
```

---

17. Tech Support %

Q. What percentage of customers have opted for technical support services?

```
Tech Support % =
DIVIDE (
    COUNTROWS ( FILTER ( 'dim_services', 'dim_services'[TechSupport] = "Yes" ) ),
    [5#total services],
    0
)
```

---

18. High Value Customers %

Q. What percentage of total customers are classified as “High Value”?

```
High Value Customers % =
DIVIDE (
    COUNTROWS ( FILTER ( 'fact_subscriptions', 'fact_subscriptions'[Customer Segment] =
"High Value" ) ),
    [1#Total Customers],
    0
)
```

---

19. Low Value Customers %

Q. What percentage of total customers are classified as “Low Value”?

```
Low Value Customers % =
DIVIDE (
    COUNTROWS ( FILTER ( 'fact_subscriptions', 'fact_subscriptions'[Customer Segment] =
"Low Value" ) ),
    [1#Total Customers],
    0
)
```

---

20. Mid Value Customers %

Q. What percentage of total customers are classified as “Mid Value”?

```
Mid Value Customers % =
DIVIDE (
    COUNTROWS ( FILTER ( 'fact_subscriptions', 'fact_subscriptions'[Customer Segment] =
"Mid Value" ) ),
    [1#Total Customers],
    0
)
```

---

21. Total Services

Q. How many total services are being used across all customers?

```
total services = count(dim_services[ServiceKey])
```

📊 Analytical KPIs Summary

This project's DAX measures focus on analyzing customer churn, revenue loss, and behavioral patterns.

- Retention Metrics: Churn Rate %, Active Customers, Average Tenure
- Revenue Metrics: MRR, Total Revenue, Churned Revenue, ARPU
- Customer Value Segmentation:** Average CLTV, High/Low/Mid Value Customers %
- Demographics & Services: `Partner %, Dependents %, Senior Citizen %, Internet Service %, Tech Support %, Streaming %
- Goal: Provide actionable insights for reducing churn and maximizing customer lifetime value.