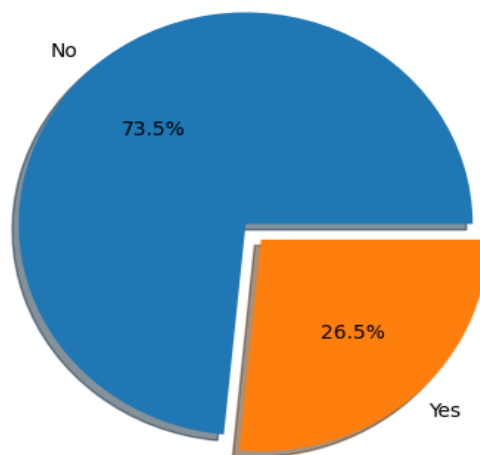# 🅽 Netflix Customer Churn Analysis

📊 Executive Summary:

This project focuses on analyzing customer churn for Netflix using user-level service data. Through exploratory data analysis and visualization, various customer attributes and service usage patterns are explored to understand their impact on churn.

🔍 Detailed Insights:

1. Overall Churn Rate

- Out of the total customer base, **26.5%** have churned, while **73.5%** have remained.

- This shows that **1 in 4 customers leave the platform**, signaling a retention gap.

2. Gender and Churn

- Churn is **almost evenly split across gender**.

  - **Female:** 26.5% churned

  - **Male:** 26.4% churned

- Conclusion: **Gender does not significantly influence churn.**

3. Churn by Senior Citizen Status

- **Senior Citizens:** 38% churn rate

- **Non-Senior Citizens:** 23.6% churn rate

- Senior citizens are **~60% more likely to churn**, suggesting the need for better support or engagement strategies for older users.

4. Customer Tenure vs. Churn

- Customers with **< 10 months tenure** show churn rates above **40%**.

- Those with **> 60 months tenure** have churn rates below **5%**.

- Interpretation: **Long-term users are more loyal**, and early churn should be addressed with onboarding and engagement.

5. Contract Type Impact

- **Month-to-month:** 43.5% churned

- **One year:** 11.5% churned

- **Two years:** 2.8% churned

- Clearly, **longer contracts greatly reduce churn**. Incentivizing long-term plans is beneficial.

6. Service Features and Churn

- Users **without OnlineSecurity**: 47% churn rate
  vs.
  Users **with OnlineSecurity**: 15% churn rate

- Similar patterns exist for:

  - TechSupport: ~45% churn without vs. ~17% with

  - DeviceProtection: ~42% churn without vs. ~18% with

- **Conclusion:** Providing and encouraging the use of security and support services **significantly improves retention**.

7. Streaming Services and Churn

- Churn rate differences for StreamingTV and StreamingMovies are **minimal**.

- These features appear to have **no significant effect** on whether users stay or leave.

✅ Final Recommendations:

- **Target early-tenure users** (<10 months) with engagement and retention campaigns.

- Offer **discounts or perks for long-term contract upgrades**.

- Promote **OnlineSecurity, TechSupport, and related services** to reduce churn.

- Streaming features are not strong churn predictors and can be bundled with more impactful services.