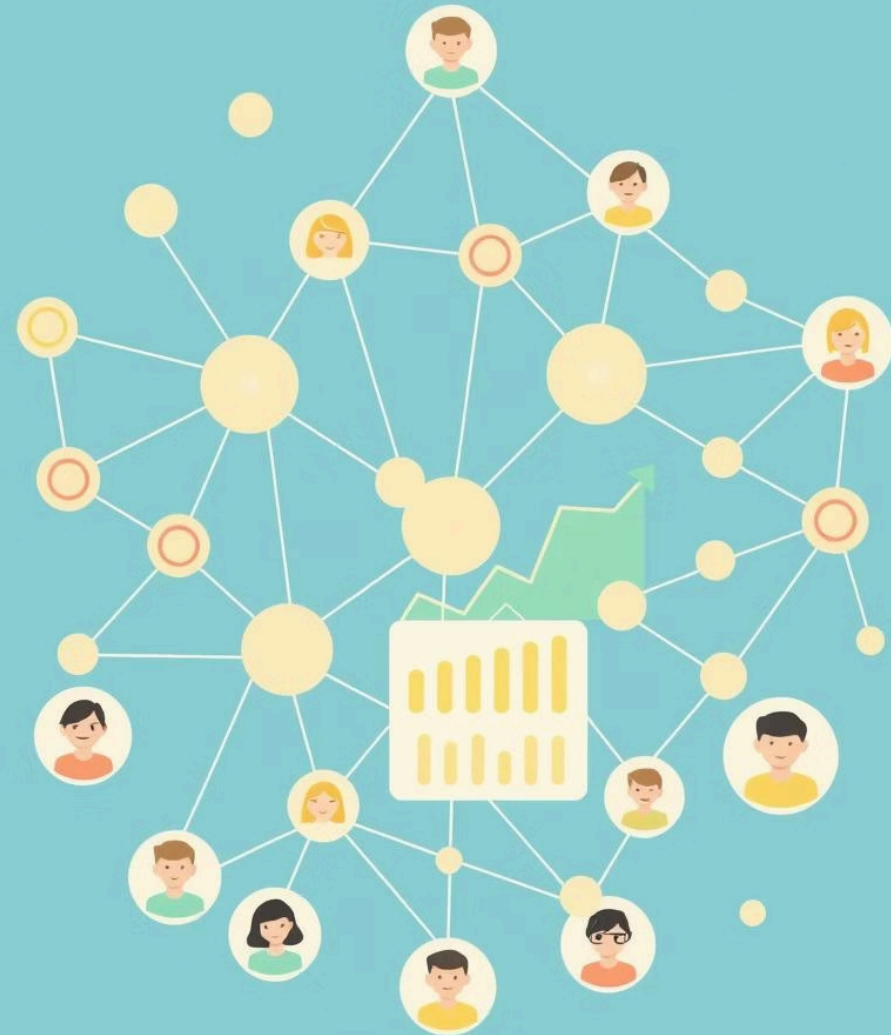


Customer Churn Analysis Report with Zoho Analytics

This report analyzes customer churn in a telecommunications company to identify patterns, risk factors, and actionable insights for improving retention. Using Python for data cleaning, MySQL for querying, and Zoho Analytics for creating interactive dashboards, the analysis uncovers key drivers of churn and provides recommendations for strategic interventions.

 by Neha Jhakra



Key Questions & Tools Used

Key Questions Addressed:

- Distribution of monthly charges?
- Characteristics of churned vs. non-churned customers?
- Impact of contract types and service usage on churn?
- Customer segments most at risk?
- Billing patterns of high-value customers?

Tools Used:

- Python (Pandas) for data cleaning.
- MySQL for SQL querying.
- Zoho Analytics for interactive dashboards.
- Jupyter Notebook for data exploration.
- Git & GitHub for version control.

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Data Cleaning and Preparation



Initial Dataset

7,043 customer records with 21 attributes, including demographics, service details, billing, and churn status.



Data Cleaning

Converted 'TotalCharges' to numeric, revealing 11 missing values. These rows were dropped.



Cleaned Dataset

Resulted in 7,032 records with no nulls, ready for import into Zoho Analytics.



Creating a Dashboard in Zoho Analytics

Dashboard Setup

Opened Zoho Analytics, created a new dashboard, and added thematic tabs like "Churn Overview" and "Billing Analysis."

Adding Visualizations

Dragged and dropped reports such as histograms for MonthlyCharges and pie charts for Churn from the panel.

Interactive Elements

Configured KPI widgets for metrics and user filters for dynamic exploration by contract or service type.

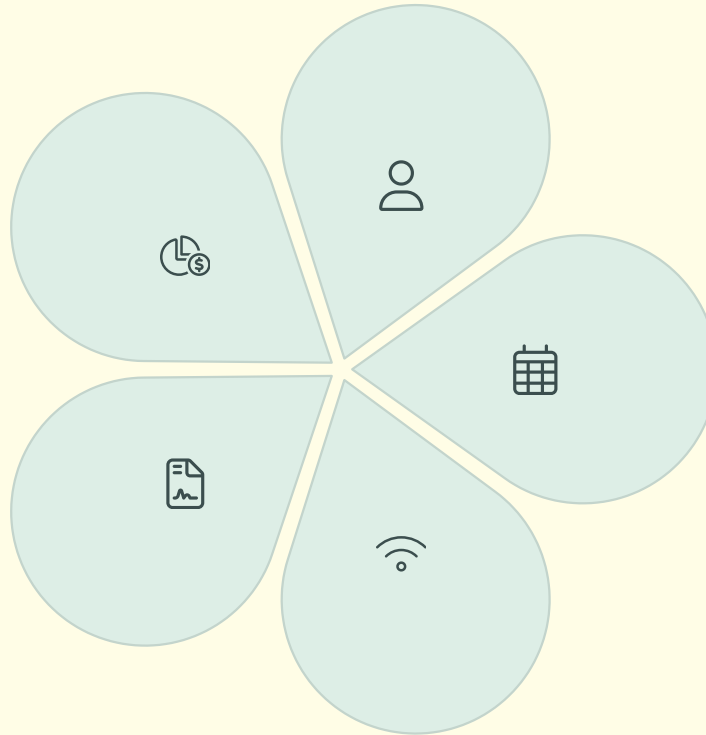
Churn Distribution and Customer Segmentation

Churn Rate

Approximately 26% of customers churned.

Contract Type

Month-to-month customers are at higher risk.



Gender Distribution

Balanced at 50% male, 50% female.

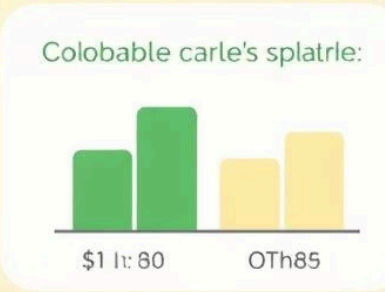
Tenure

Most customers are in the 0-12 month range.

Internet Service

Fiber optic users show higher churn.

Average monthly, youlhsine yage



Average Monthly Charge Types



Billing and Service Usage Insights



Average Monthly Charges

Month-to-month contracts average \$70, one-year \$60, and two-year \$50.



Fiber Optic Churn

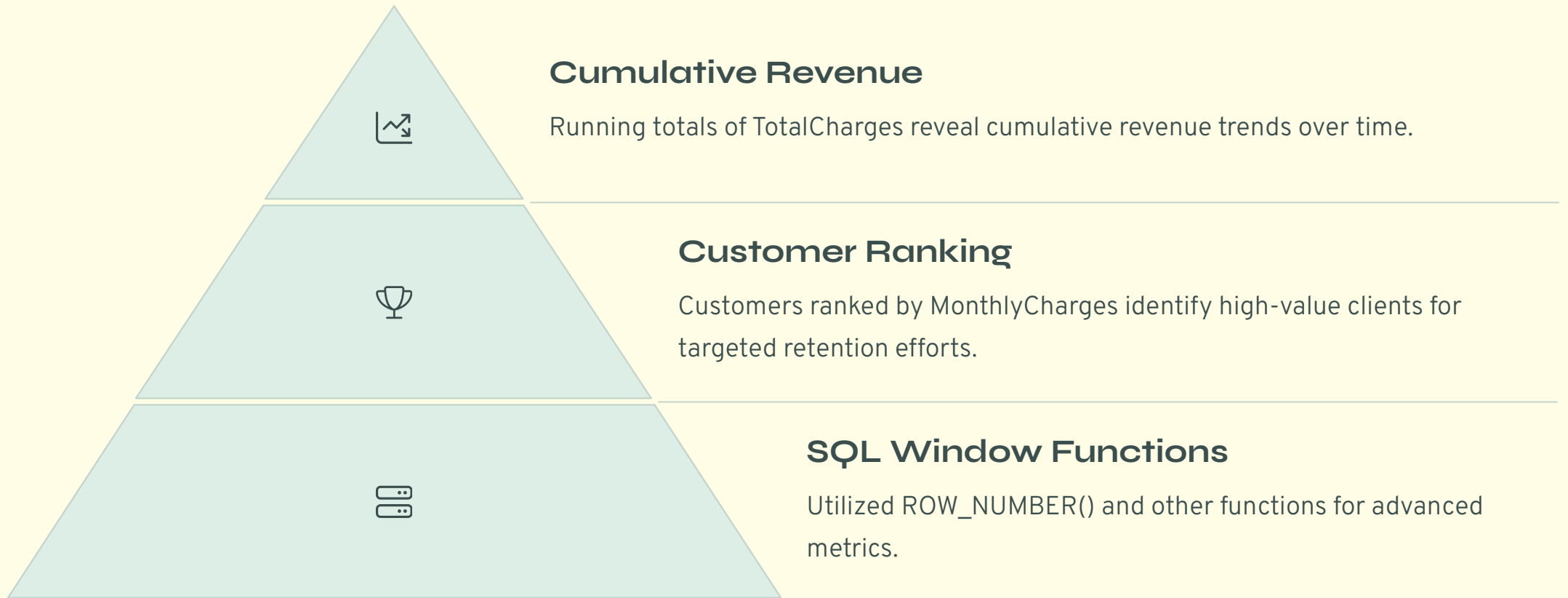
Higher churn among fiber optic users, potentially due to cost.



Family-Oriented Customers

Customers with partners and dependents show potentially lower churn rates.

Advanced Analytics with Window Functions



Conclusion & Learnings

Key Learnings

- Python Data Processing (Pandas)
- SQL Querying (aggregations, joins, window functions)
- Zoho Analytics Dashboards (interactive visualizations)
- Data Cleaning & Storytelling

Recommendations

- Target fiber optic & month-to-month customers with offers.
- Investigate zero TotalCharges cases.
- Develop loyalty programs for new customers.

Zoho Analytics Advantage

Drag-and-drop dashboards enable rapid, interactive visualization of churn metrics, enhancing decision-making.