**Project Title**

Predicting Customer Churn in Telecom Industry using Power BI and SQL

**Problem Statement:**

Predicting Customer Churn in Telecom Industry

**Data Preprocessing Steps**:

1. Data set was loaded into excel for data cleaning and data preprocessing
2. First rows are promoted as headers
3. Applied filters for all the columns
4. Removed the unwanted columns
5. Assigned data types for all the columns
6. Checked for null values and are removed
7. Duplicate values are cross-checked
8. Monthly Charge Column had negative values, so those rows were removed
9. New Measure were created in Power BI for churned, stayed, joined customers
10. New Measure for Churn rate
11. New Columns are created for grouping the age and for Churn status
12. Churned customer’s table and Total Churned customers’ tables are loaded in into MySQL
13. SQL functions such as avg, count, group by, order by are used
14. Stored procedure is created to identify the Churn rate

**Findings and Insights:**

1. Analyzing the customer interactions with the company, the majority of the churned customers are because of the competitors and the attitude of the support person. Competitors has provided better devices and better offers, but our pricing range is optimal.
2. Analyzing the given data using Power BI, it is found that the Churn rate in San Diego city is very high. So, conducting a marketing campaign with special offers in this city will help us to improve our retention rate.
3. It is also found that customers above the age of 60 has a churn rate of 35%, but the amount revenue generated from that category of people is fascinatingly high (i.e. $1.03M). As we identified the average age of churned customers is 50, we could provide exclusive offers and discounts for customers who are above 50, which will increase the cash flow of the company.

1. No Offers were provided for 890 of 1563 Churned Customers
2. About 276 customers have churned using our service after a month because there were no offers, competitor had better offer with high speed data package. Monthly contracts are most likely to churn, with a churn rate of 20%