**Customer Churn Case Study**

**Background:**

Customer churn is the loss of clients or customers. (Customer Attrition)

Because the cost of retaining an existing customer is far less than acquiring a new one.

(It’s easier to retain customers than to attract new customers)

Companies usually studies customer churn behavior to avoid any future churns.

For this case study churn prediction doesn't matter. What matters is understanding the churn behavior.

**Expected outcome**

1. Do data analysis to identify the churn behavior in the attached dataset.
2. Dashboard contains list of KPIs & Charts that supports your analysis in point A [*feel free to use any data visualization tool that you are confident to use for creating & sharing your dashboard if sharing is applicable if not please attach a screenshot from your dashboard.]*
3. Documentation file contains the below:
   1. **Target audience**: The people that your dashboard will be beneficial to them & how can they use it in their decision making.
   2. **Chart documentatio**n: Business & technical details that you would like to share for each created chart in the dashboard
   3. **Data preparation documentation**: list of all data cleaning and pre-processing activities applied on the provided dataset [*feel free to use any data transformation tool/language]*

**Dataset Description**

|  |  |
| --- | --- |
| Column Name | Description |
| State | State in which the customer resides |
| Account length | The number of days that this account has been active |
| Area code | the area code of the corresponding customer’s phone number |
| International plan | The Customer has International Plan or not |
| Voice mail plan | The Customer has Voice mail plan or not |
| Number vmail messages | Number vmail messages |
| Total day minutes | The total number of calling minutes used during the day |
| Total day calls | The total number of calls placed during the day |
| Total day charge | The total billed cost of daytime calls |
| Total eve minutes | The total number of calling minutes used during the evening |
| Total eve calls | The total number of calls placed during the evening |
| Total eve charge | The total billed cost of evening time calls |
| Total night minutes | The total number of calling minutes used during the night |
| Total night calls | The total number of calls placed during the night |
| Total night charge | The total billed cost of nighttime calls |
| Total intl minutes | The total number of calling minutes used internationally |
| Total intl calls | The total number of calls placed internationally |
| Total intl charge | The total billed cost of international calls |
| Customer service calls | The number of calls placed to Customer Service |
| Churn | Whether the customer left the service |

***Notes: Evening is the time between afternoon and night.***

***Night is the time between the setting of the sun and sunrise***