

# **Capstone Project 1: Exploratory Data Analysis**

## **(Inferential Statistics)**

Here we will be applying statistical tools to gain some inferences and insights into the data and discover relationships between various features of our dataset with the target variable by hypothesis testing.

We will use **chi-square test of independence of variables in a contingency table**.

The following results were obtained:

1. Gender has no influence on churn.
2. Senior Citizen has influence on churn.
3. Partner has influence on churn.
4. Dependents has influence on churn.
5. Tenure has influence on churn.
6. Phone Service has no influence on churn.
7. Multiple Lines has influence on churn.
8. Internet Service has influence on churn.
9. Online Security has influence on churn.
10. Online Backup has influence on churn.
11. Device Protection has influence on churn.
12. Tech Support has influence on churn.
13. Streaming TV has influence on churn.
14. Streaming Movies has influence on churn.
15. Contract has influence on churn.
16. Paperless Billing has influence on churn.
17. Payment Method has influence on churn.
18. Monthly Charge has influence on churn.
19. Total Charge has no influence on churn.

Gender, phone service and total charge have no influence on churn according to the chi-square test of independence of variables. 16 out of 19 variables have influence on churn.