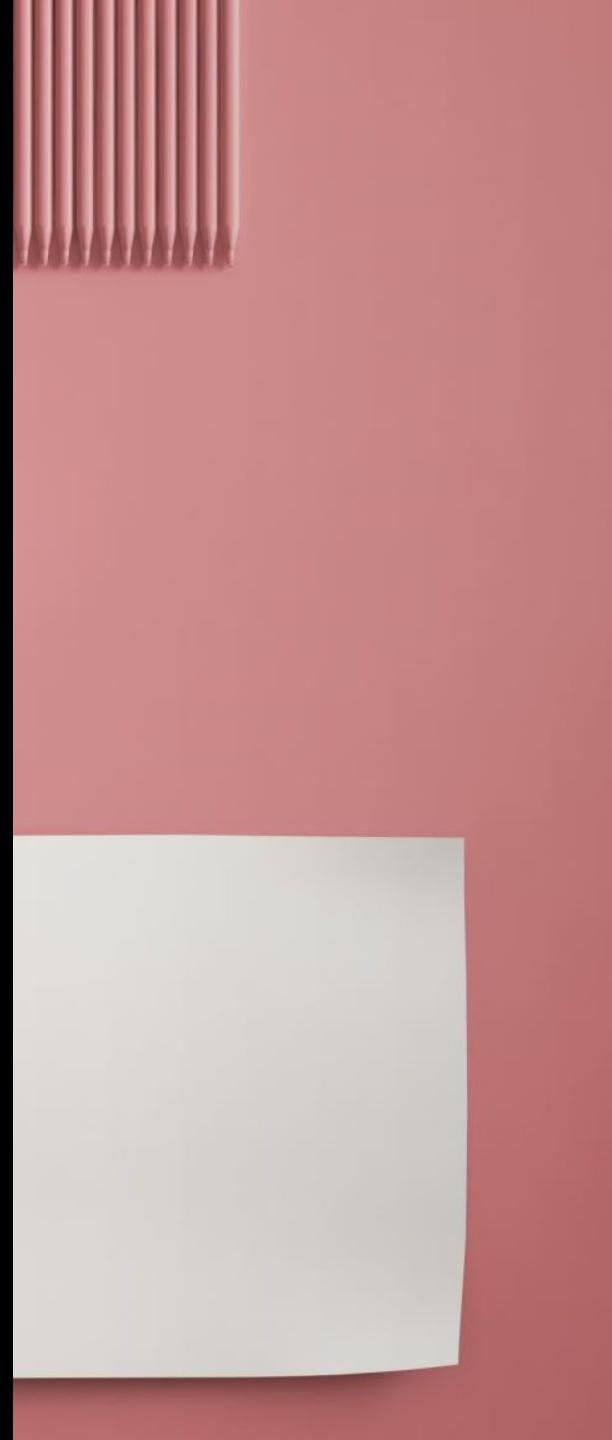




Churning

Analysis



Data Description

- It contains 21 columns and 7043 rows.
- Our Dependent variable is “Churn”, which consist of 2 variables, “Yes” and “No”.
- There are 11 missing values in dataset.

STEPS

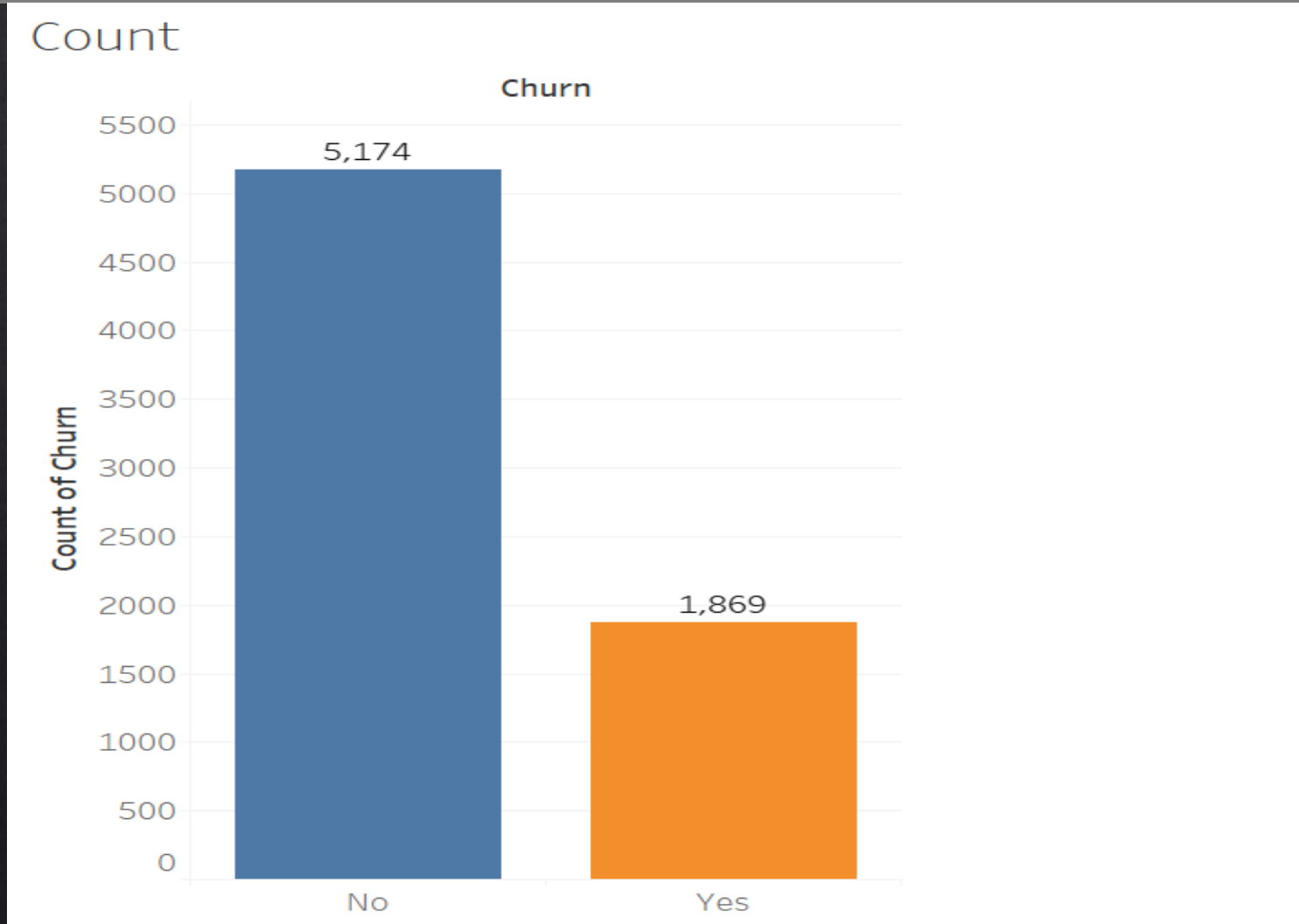
- Handling the NA values.
- Plotting graphs of relevant columns to get useful insights.
- Performing categorical encoding to the columns.
- Applying the algorithms of supervised learning.

Categorical Encoding

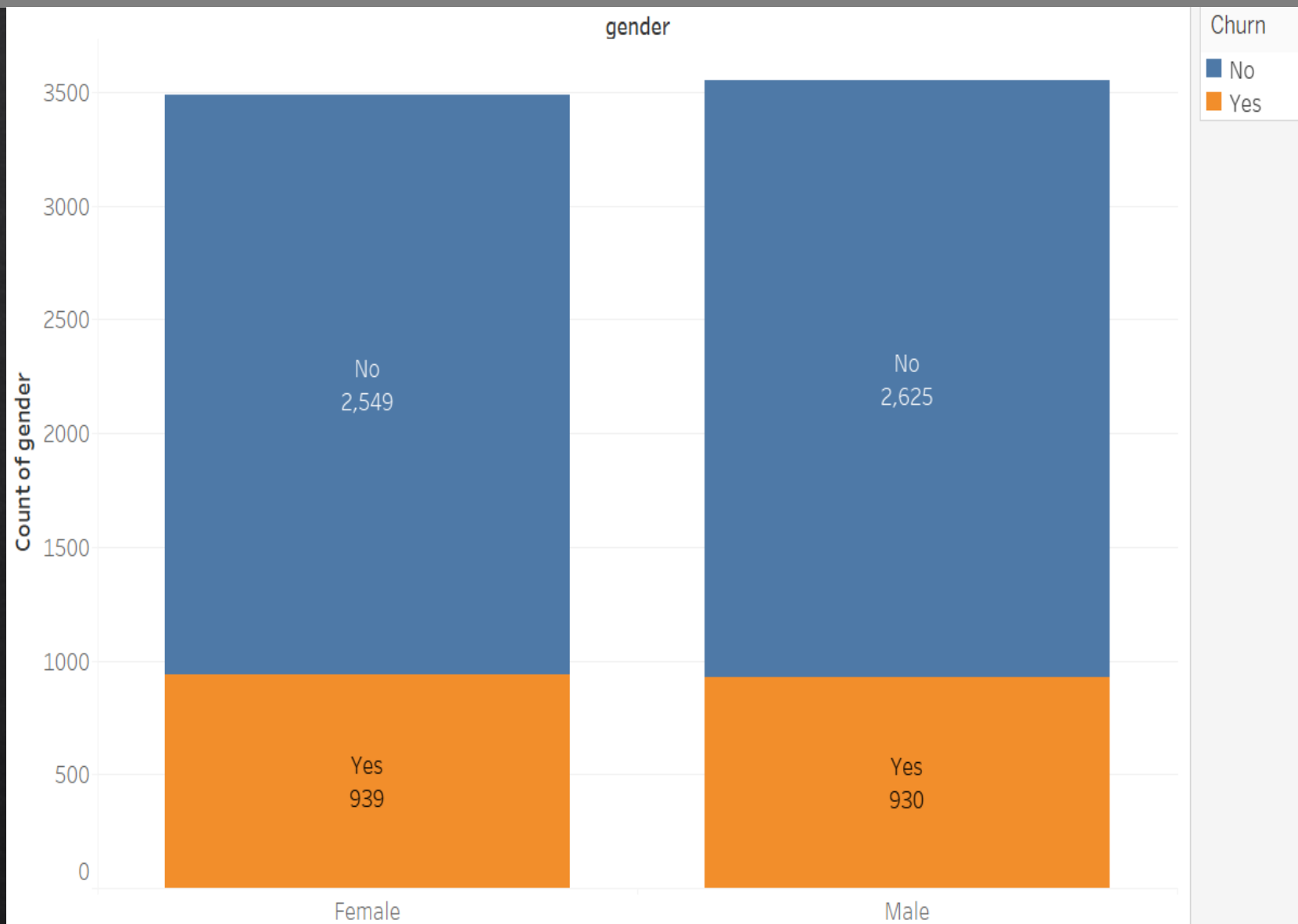
To make our model efficient.

- ◆ Replacing category variable as “No internet service” is being used with different names in many columns.

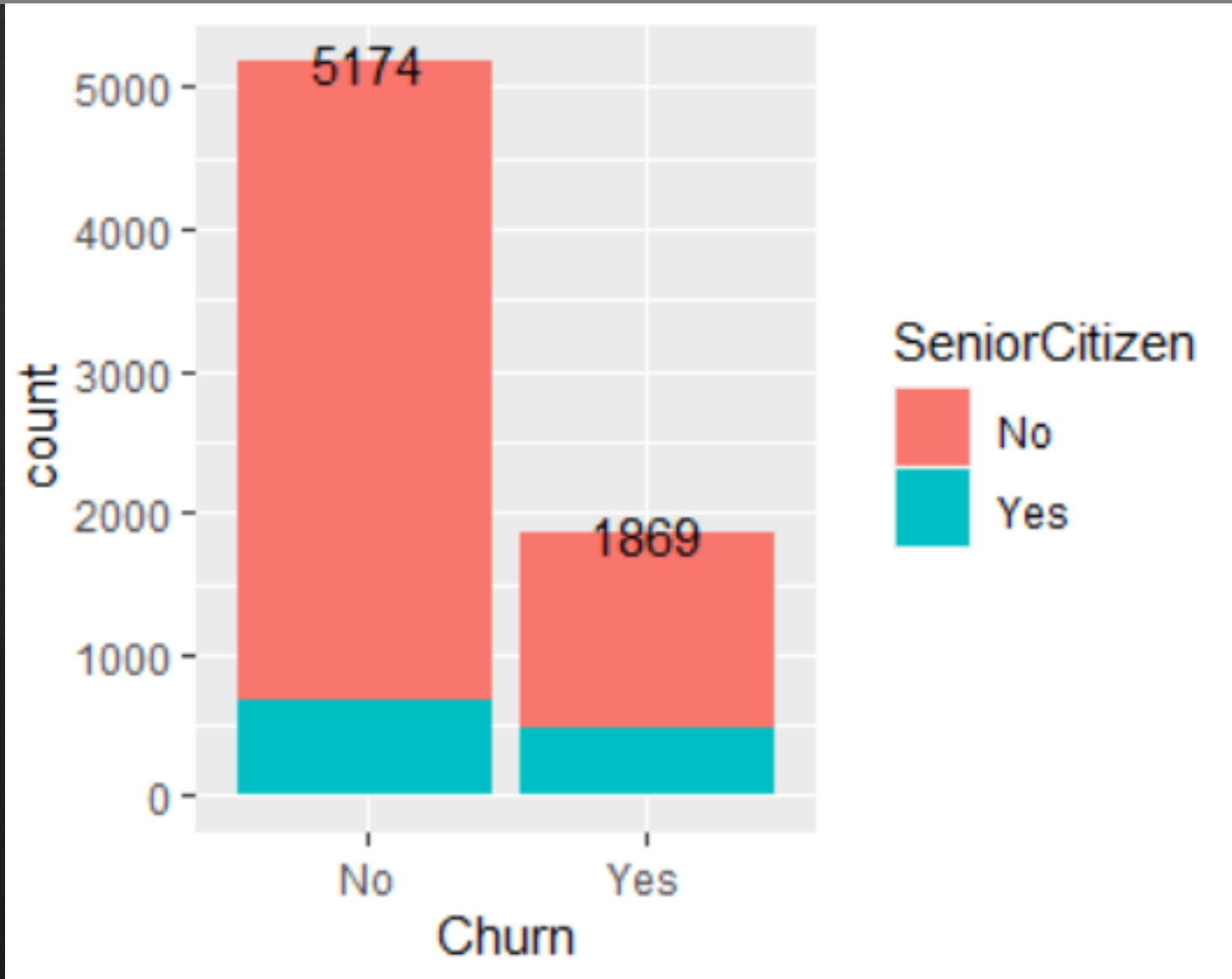
Count of Churn in the dataset



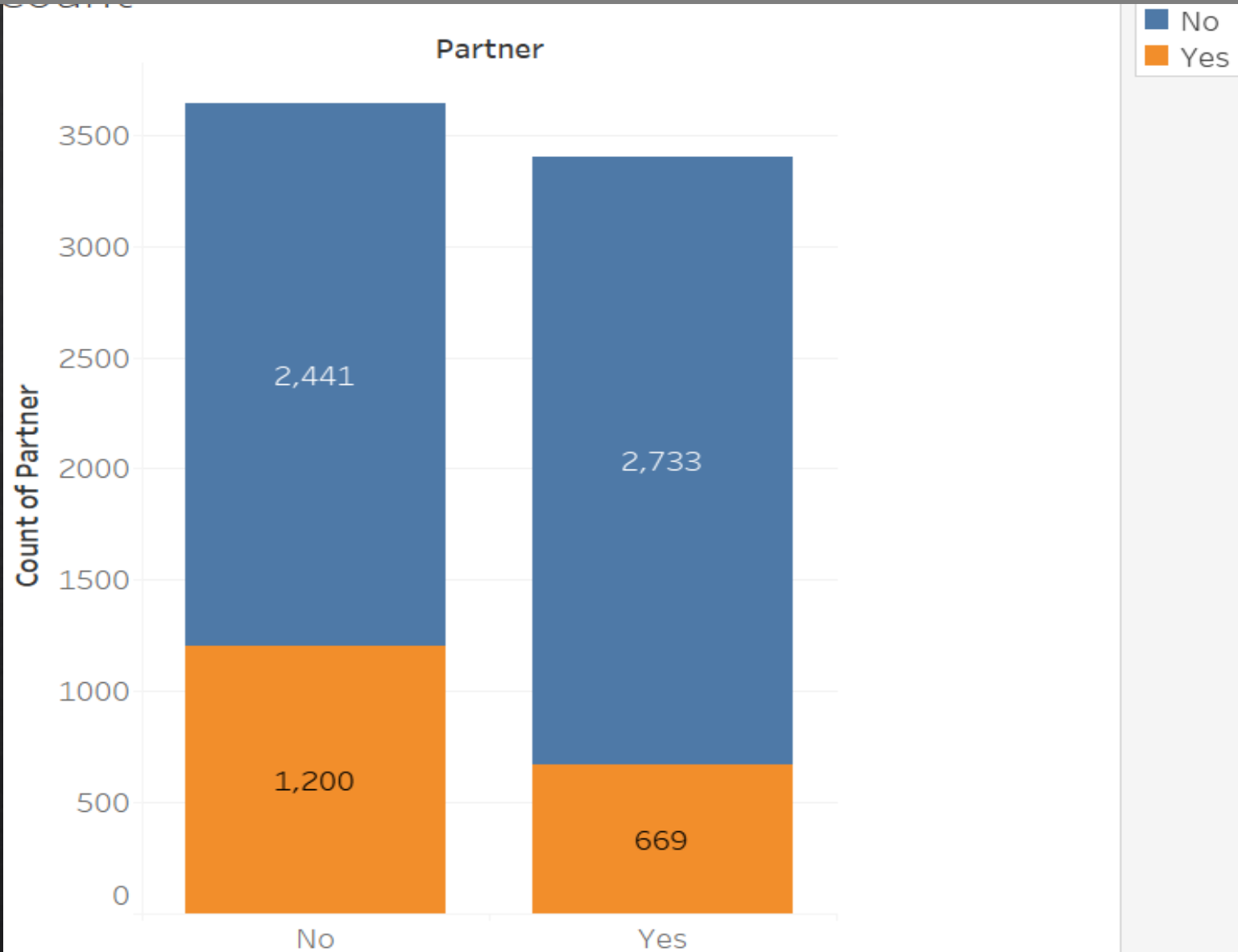
Count of Churn based on gender



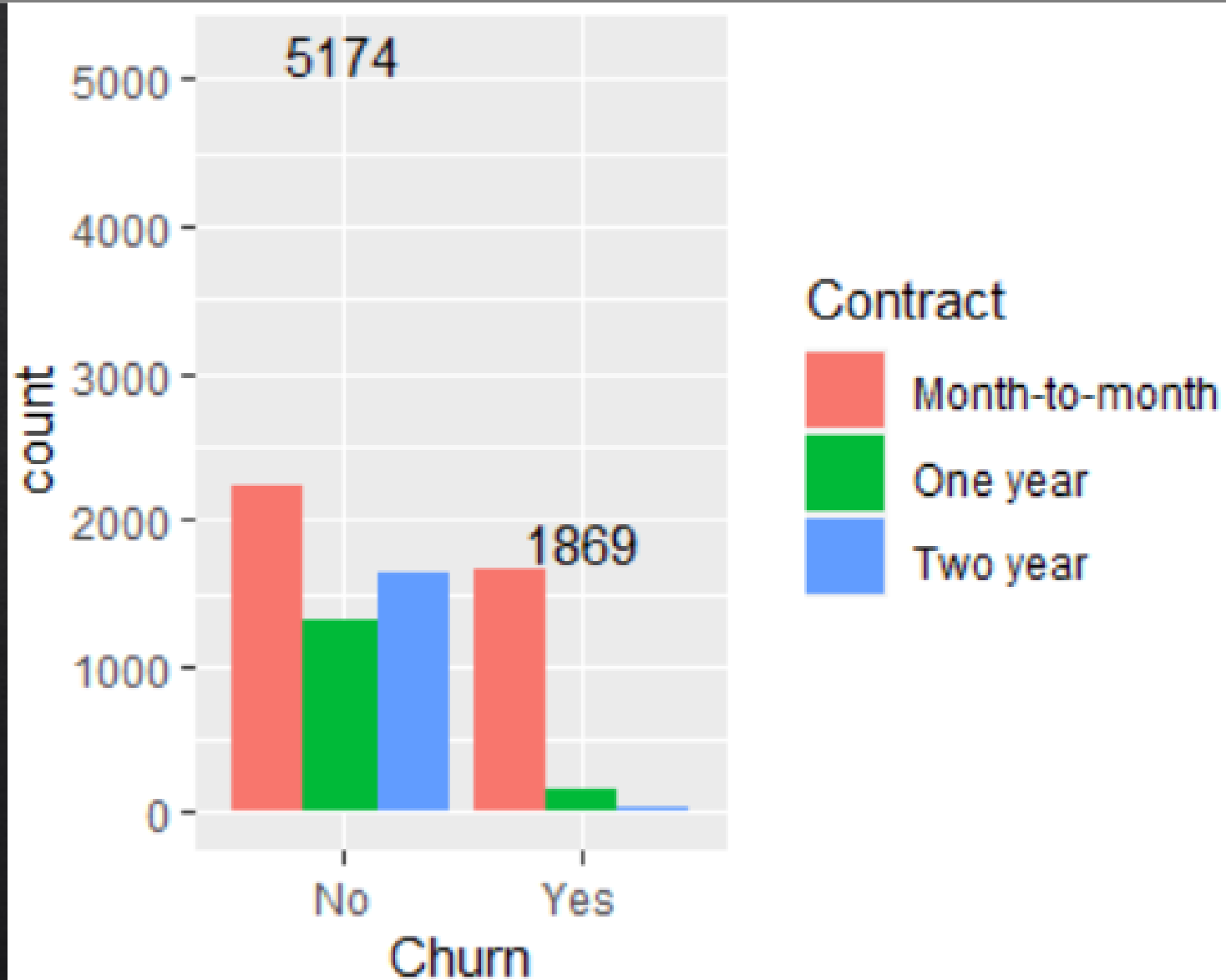
Count of Churn based on being a senior citizen



Count of Churn based phone services



Count of Churn based on contract



RANDOMLY SHUFFLING DATA TO AVOID BIASNESS

Sub setting into training and test data set

Training data contains 70%
of actual dataset.

Test data contains the 30%
of actual dataset.

Applying ALGORITHMS

Using Logistic
Regression

Accuracy=79.5%

Using SVM

Accuracy=80%

Using Decision
trees

Accuracy=80.9%