

Telecommunication

Predict behavior to retain customers.

Project Breakdown

1. Business Understanding
2. Data Understanding
3. Exploratory Data Analysis
4. Model Training & Result Evaluation
5. Strategy Planning

Telecommunications Industry

Plays a crucial role in the evolution of mobile communications and the information society.

- Telephone companies + Internet service providers.
- Allow us to speak, share thoughts and do business with anyone, anytime and anywhere.
- Less about voice and more about text and images today.
(e.g. messaging, email and video streaming)
- Customers:
Residential customers: Price-sensitive.
Big corporate customers: Quality and reliability matter.



AT&T

verizon



Consolidated[®]
communications



CenturyLink[™]

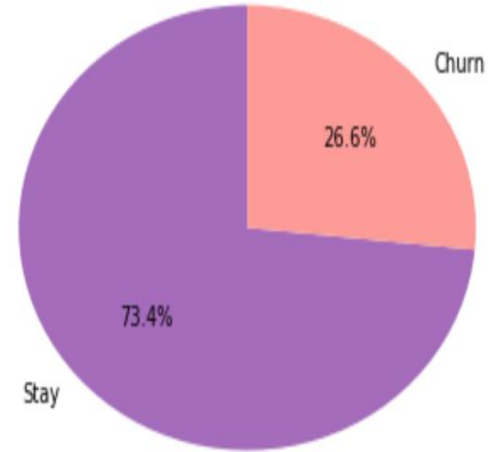
Data Information

- Customer demographics
- Services
 - a. Phone
 - b. Internet
- Account Information
 - a. Tenure
 - b. Contract type
 - c. Billing method
 - d. Payment method
 - e. Charges
- Churn

Customer Demographics

Data
7043

Missing Value
11



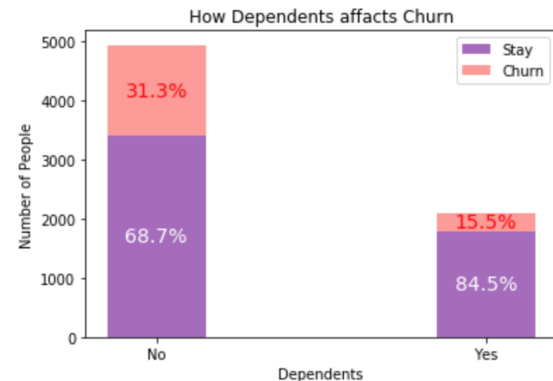
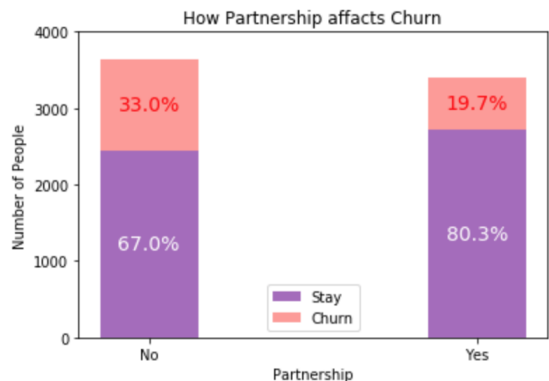
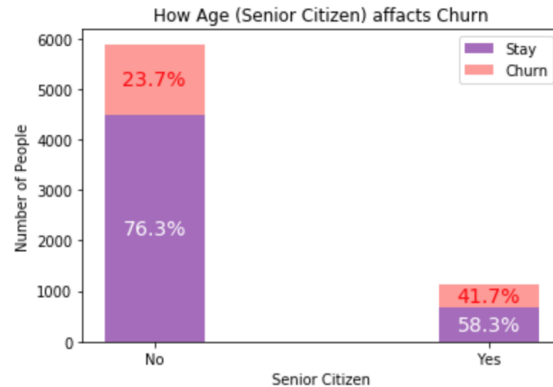
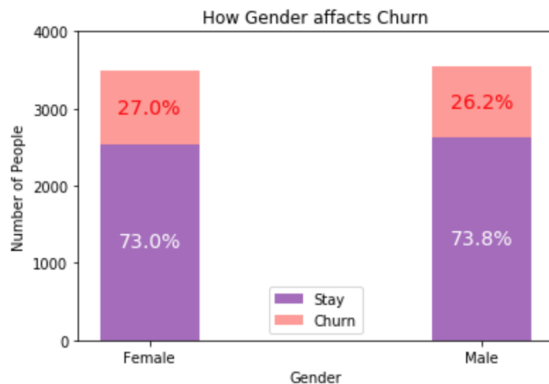
Gender Ratio
50:50

Senior Citizen
16%

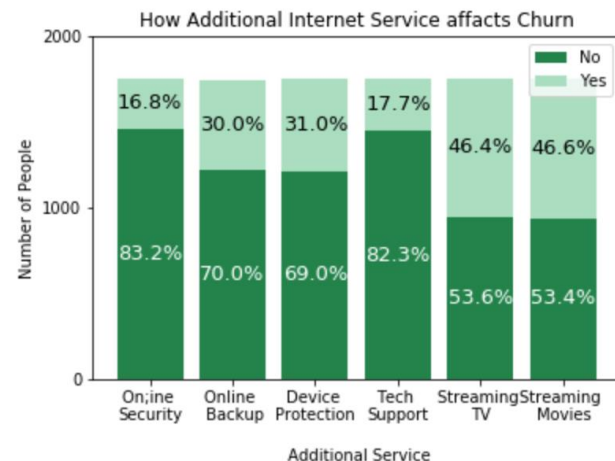
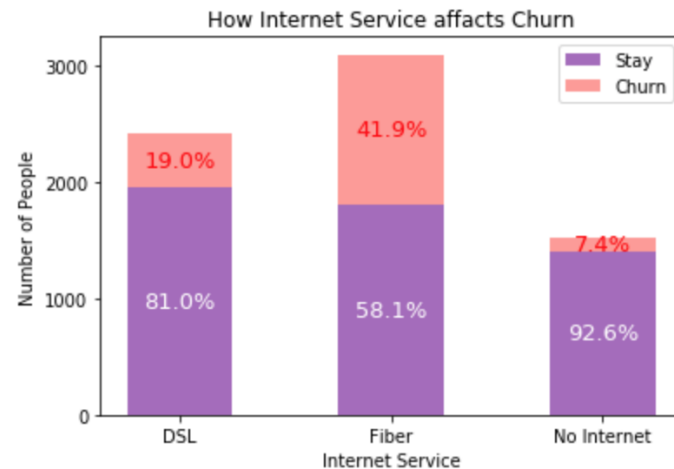
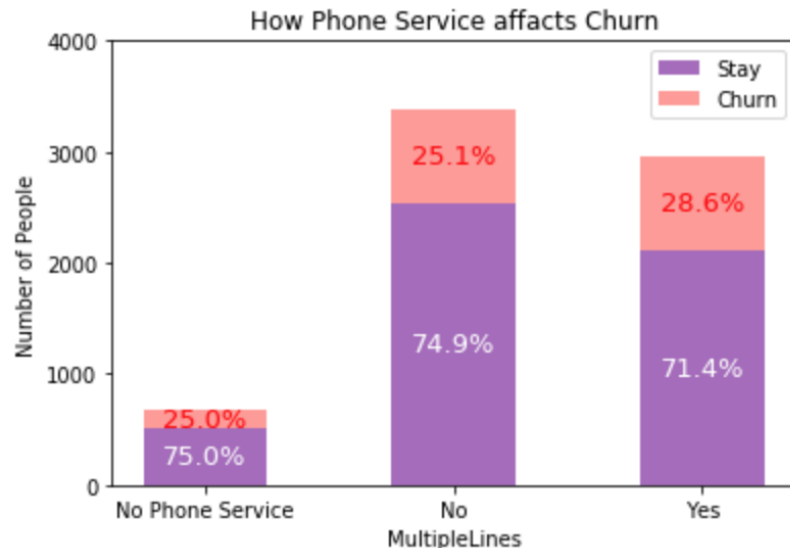
Partnered
48%

With Dependent
30%

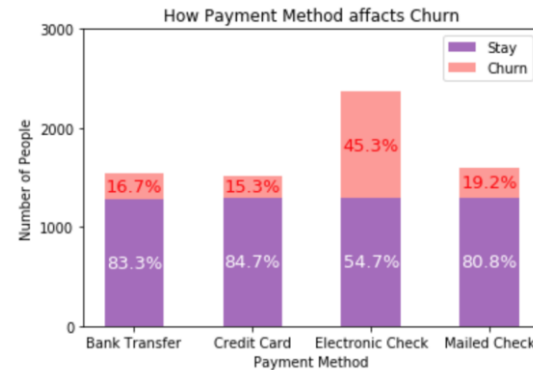
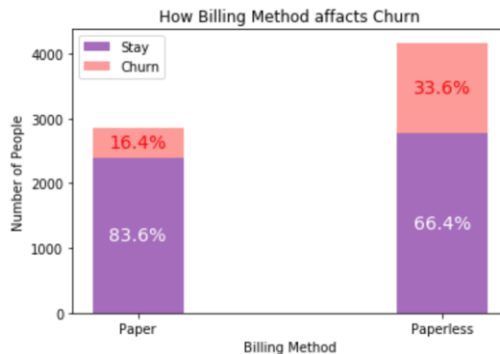
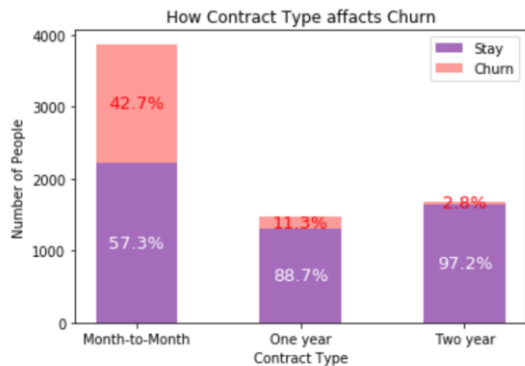
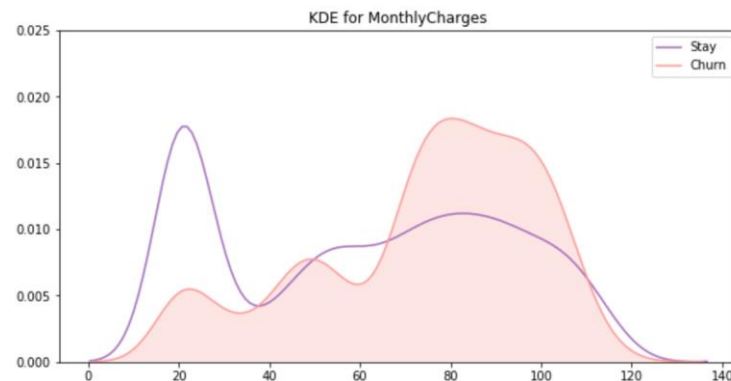
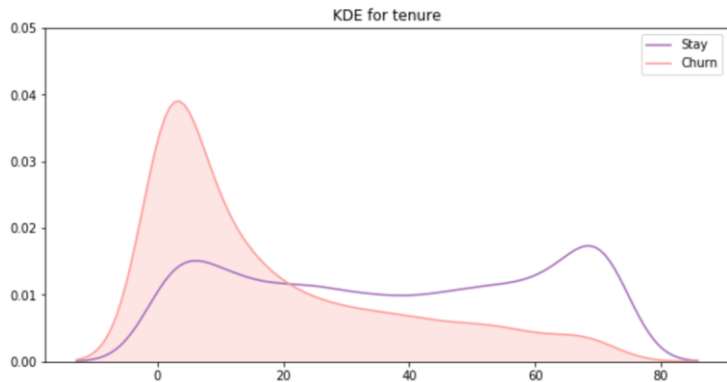
How Demographics affect Churn



How Services affect Churn



How Accounts affect Churn



Strategy

Target Customer to retain:

- Senior
- Without partner
- Without dependents

Feature Service Type:

- Phone Service
non-multiple line
- Internet Service
DSL
- Additional Services
Online Security, Online Backup, Device Protection, Tech Support

Feature Account type:

- 2 year contract
- Paper billing
- Credit card payment