

Group Assignment - 19.2 batch

You have given a sample dataset of customers ABC telecommunication company.

The description of the dataset is as follows;

- Customers who left within the last month – the column is called Churn
- Services that each customer has signed up for – phone, multiple lines, internet, online security, online backup, device protection, tech support, and streaming TV and movies
- Customer account information – how long they've been a customer, contract, payment method, paperless billing, monthly charges, and total charges
- Demographic info about customers – gender, age range, and if they have partners and dependents

As the Data Scientists team of the company you are supposed to predict customer churn behavior.

You are required use following techniques/ Algorithms

1. Preprocess the data (Hint: Check the data quality – whether there are duplicates or unrealistic values) (If available)
2. Exploratory analysis of Data
3. Treat outliers and correlated variables (Remove or Replace) (If available)
4. Feature selection/ Extraction through PCA
5. Any appropriate algorithm and evaluation of the model
6. Post analysis (How many customers are potential to churn in test data? What is the avg loss that will cause etc.)

Prepare a report for above 1-6 areas (Not more than 8 pages - Contents, Introduction, conclusion is NOT required) covering how you developed the model, what are the learnings and what are the findings.

Submission date: 17th October 2020