* Our aims to build a churn prediction model and use that model to identify customers likely to churn
* Telecom companies trying the satisfying their customers and the services offered by telecom companies have increased from being not only calls but also voice mail massages and international call service also. telecom companies need to innovate, offer better services and increase their customer base.so we have data frame the customers of telecom sector. In that data we have 3333 customers data. And aims to build a deployment model and find churn prediction model to use that model to identity customers like to churn or not churn.
* Additionally, a prediction model, to identify the people that might churn, will also be built. To build a prediction model, we will make different models using techniques such as logistic regression, decision tree, and neural network. These models will then be compared on the number of parameters obtained and the model optimized for final use.
* we work on EDA Part and find which factor is more affect for churn. So 14.5% customer has churned categories reason behind the International plan and customer service and little bit voice mail plan. ⎝
* after that we made model building and 1st we are balancing data which is inbalance. After finding out the way prediction model. We find the few prediction Model. 1st Random Forest, 2nd XGBoost.
* In terms of accuracy, XG-Boost performs the best and returns the best accuracy value of 90 % among the three used models. Random forests gave an accuracy of nearly 89 % whereas SVM gave an accuracy of 82 %.
* XGBoost is a top choice algorithm for classification and regression predictive Modeling projects

because it often achieving the best performance.

For deployment coding we use EDI. that write in pycharm and use streamlit application.

Acceptance Criterion: Need to deploy the end results using Flask /Streamlit etc

Milestones: 30 days to complete the Project

|  |  |  |
| --- | --- | --- |
| Milestone | Duration | Task start - End Date |
| Kick off and Business Objective discussion | 1 day | 19-Oct-2022 |
| Data set Details/EDA | 1 Week – 1 ½ week |  |
| Feature Engineering | 1 Weeks – 1 ½ week |  |
| Model Building | 1 Week – 1 ½ week |  |
| Model Evaluation | 1 Week |  |
| Feedback |
| Deployment |  |
| Final presentation | 1 day |  |

Protocols:

1. All participants should adhere to agreed timelines and timelines will not be extended.
2. All the documentation – Final presentation and R/python code to be submitted before the final presentation day.
3. All the participants must attend review meetings.