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**Abstract Architecture Diagram**

One significant problem that businesses face is customer attrition. It has become crucial for corporate operations and growth to prevent customer churn and work to keep clients. It is challenging to effectively estimate customer turnover because the majority of the existing projections use a single prediction model. Concentrating on the results of predictions of the models of machine learning, this study proposes a combination of estimating model for customer turnover and performs practical research on the model's efficacy. The combined prediction model outperforms the single customer churn prediction model in terms of accuracy and predictive impact, according to the findings of the predictions. It can also more naturally express the fundamental traits of the churn consumers.

Diagram

Description automatically generated

**Significance of the Project Conclusion**

The logistic regression model forecasts an increase in the turnover rate because of factors including a monthly contract, optical fiber internet connection, online payments, no guarantee of secure payment, and technical help.

Whereas, if any customer has a one-year contract, online security subscription, or has chosen to use postal checks as their payment method, the model predicts a negative link with churn. Many churn prediction models currently treat each customer as an isolated entity, without considering the broader context of the market or industry. In the future, it may be possible to incorporate more contextual information, such as economic trends or competitor behaviour, into churn prediction models.

Can apply to many different industries and business models. Some examples of industries that commonly use churn prediction include telecommunications, e-commerce, software as a service (SaaS), and financial services. Machine learning algorithms can analyze large amounts of data to identify patterns and trends in customer behavior that may indicate a customer is likely to churn. Machine learning models can be trained on historical data to predict which customers are most likely to churn in the future.

**Conference/Journal Publication Details (If Any)**