**Android Club - R&D Team Machine Learning**

Q.1 How would you handle imbalanced data if churned customers are fewer than active ones?

Ans:

Reduce the number of active customers to balance the classes. We will not delete the active customers data, but just reduce the size of active users data temporarily for comparison purpose.

We can use Scaler function, by using this function each data column get scaled to all other data column values, which also makes the churn customer data equally valuable.

Q.2. What features are the most important predictors of churn?

Ans:

1. Monthly Usage Hours: Higher the usage, lower will be the churning customer rates.
2. Subscription Plan: Better features a type of plan provides, better is the customer retention rate is.
3. Tenure: Customers using the service for longer tenure might be less likely to churn.
4. Monthly Fee: It depends upon the justification of fess collected from the user for what the company provides a particular feature.

Q.3. How would you explain the model's predictions to a non-technical business team?

Ans:

Since, It is a Business Team, it is oriented towards more Statistical Data Analysis. In such case, I would like to focus more on explaining my prediction model through Graphs, Heatmaps.

Also by providing relatable real examples of predictions can help the team understand the model’s base functioning.

Q.4. What steps would you take to deploy this model into production?

Ans:

Steps for deploying model into production are-

1. Importing necessary dependencies.
2. Loading a dataset
3. Cleaning and Feature Engineering over the data
4. Model Selection and Training over train data.
5. Model Evaluation.
6. Choosing the Best Model after Tuning.
7. Deploying Model on Hosting environments like AWS, GCP or Azure.
8. Data Visualization- Creating a Dashboard which shows necessary Graphs and Heatmaps required to understand the Output of the model.