Design tree

1. What is the overall performance design tree?.

The overall performance for accuracy = 0.90

Accuracy: Ratio of correct predictions to total instances.

- Accuracy $= \frac{TP+TN}{TP+TN+FP+F}$

2. What is the correct performance of purchase?

$$\text{Recall} = \frac{TP}{TP + FN}$$

Recall =0.88

3. What is the total correct purchase prediction

$$\text{Precision} = \frac{TP}{TP+FP} == 0.86$$

4. How will you validate model performance?

F1 score

$$\frac{\text{Recall} * \text{precision}}{\text{Recall} + \text{precision}}$$

$$\frac{2*0.88*0.86}{0.88+0.86}$$

5. How many class we are going to design tree

The class going to 134 class

6. What are Balanced and Imbalanced Datasets classification design tree

Classes are represented equally or nearly equally

Ex: the dataset with 1000 instances, 500 belong to dog and 500 to cat.

Imbalanced Datasets**:**

One class (majority class) has significantly more instances than the other class (minority class

In a dataset with 1000 instances, 950 belong to Class dog and 50 to Class cat