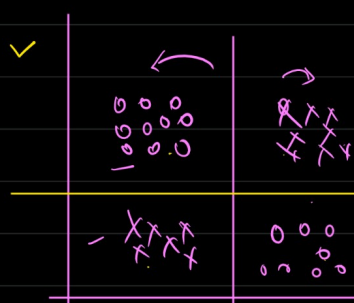


## \* Decision Tree

Log Reg.



→ logistic regression works for linear decision boundary  
→ Linear regression captured linear relationship.

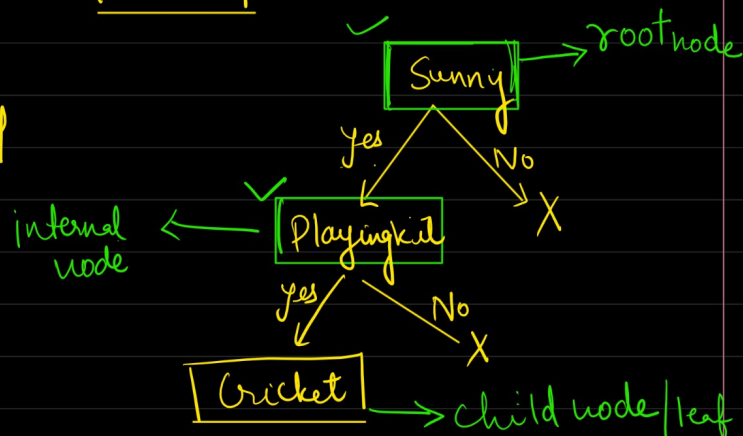


→ Logistic regression / linear regression will not work with non linear data

## \* Decision tree

→ Classification problem (Decision tree classification)  
→ Regression problem (Decision tree regression)

Cricket



\* Decision Tree works on nested if else condition.

Decision Tree

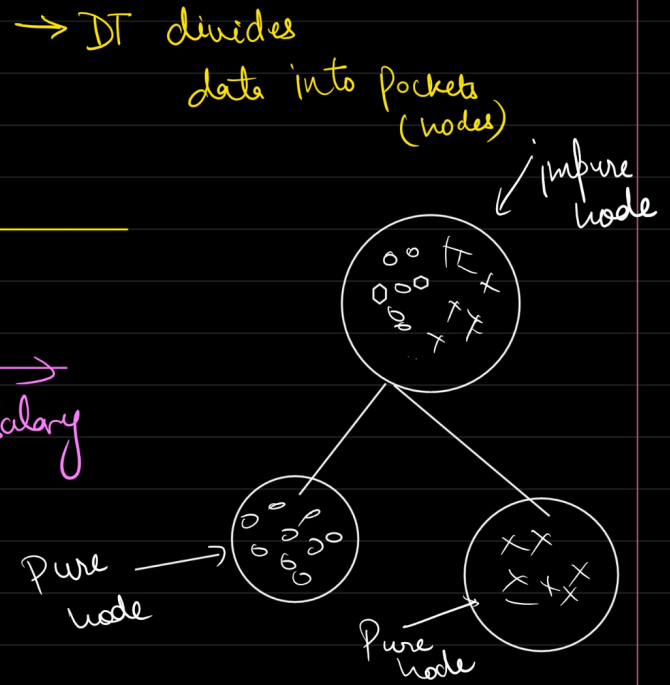
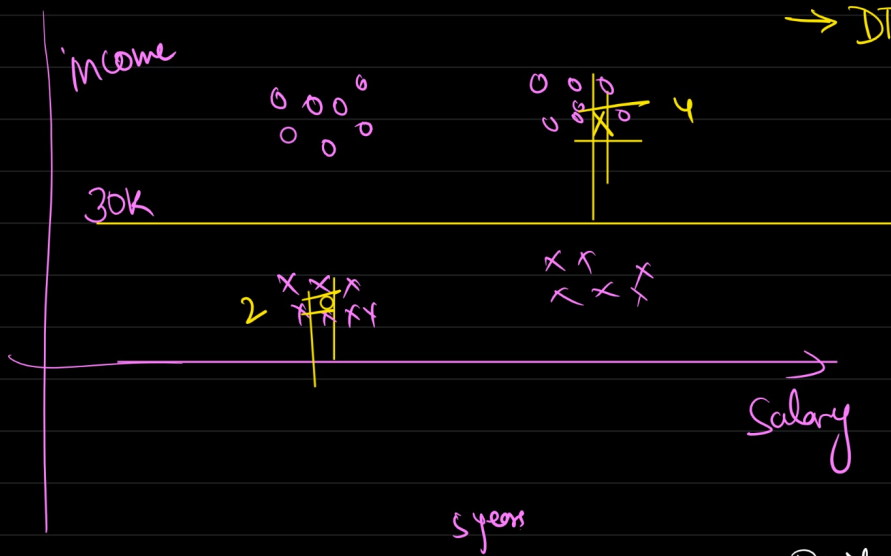
↓  
At every node a decision is taken

↓  
It looks like a tree.

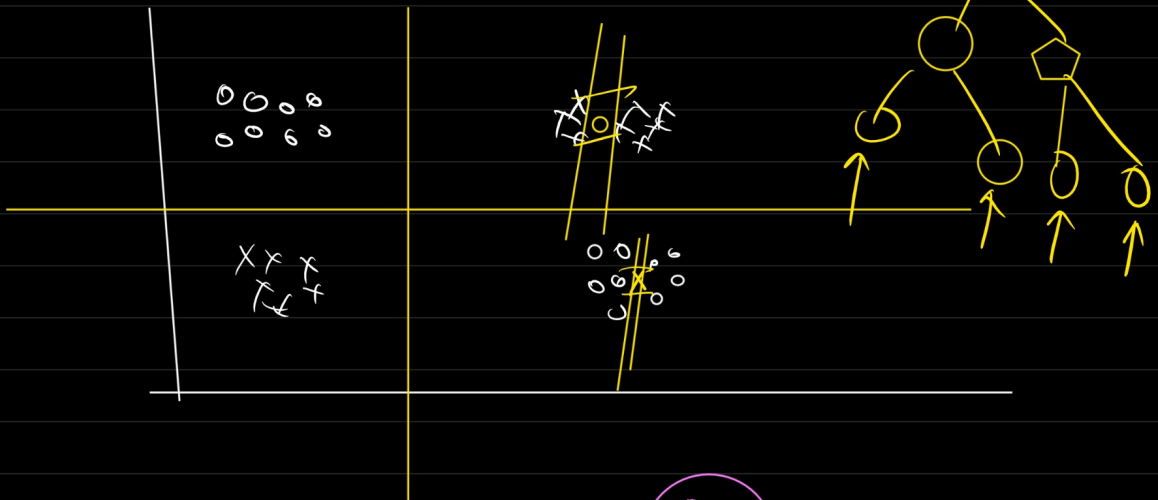


# \* Advantages

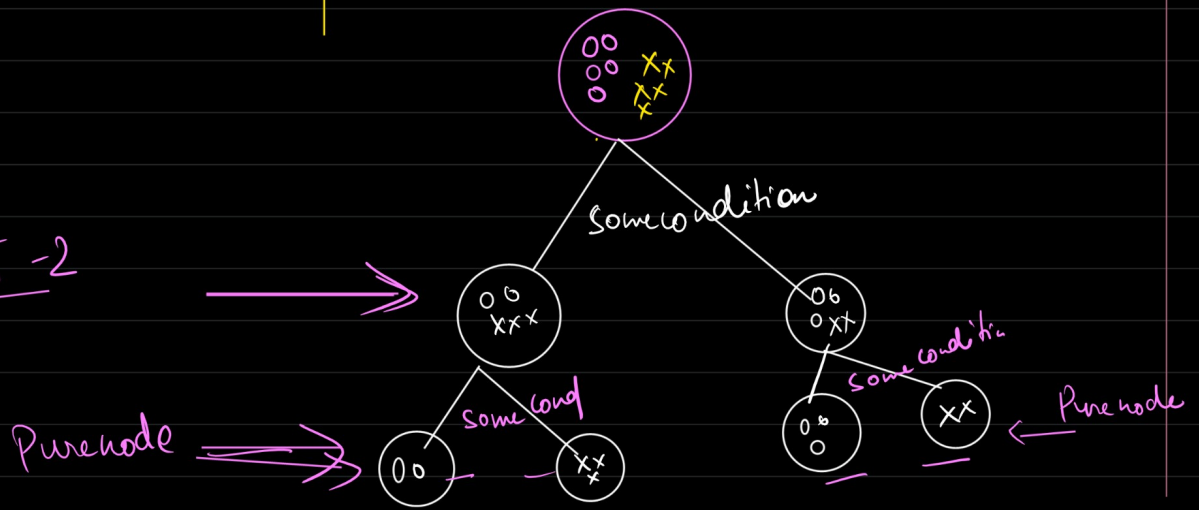
- Simple to Understand
- Captures non-linear relationship



\* The DT intend is to create pure leaf node/pockets where each data points belongs to one class



Depth of DT - 2



- ① How this split will happen? (purity/impurity)
- ② Which features to be used for splitting?

✓ pure — homogenous node  
impure — heterogeneous node

