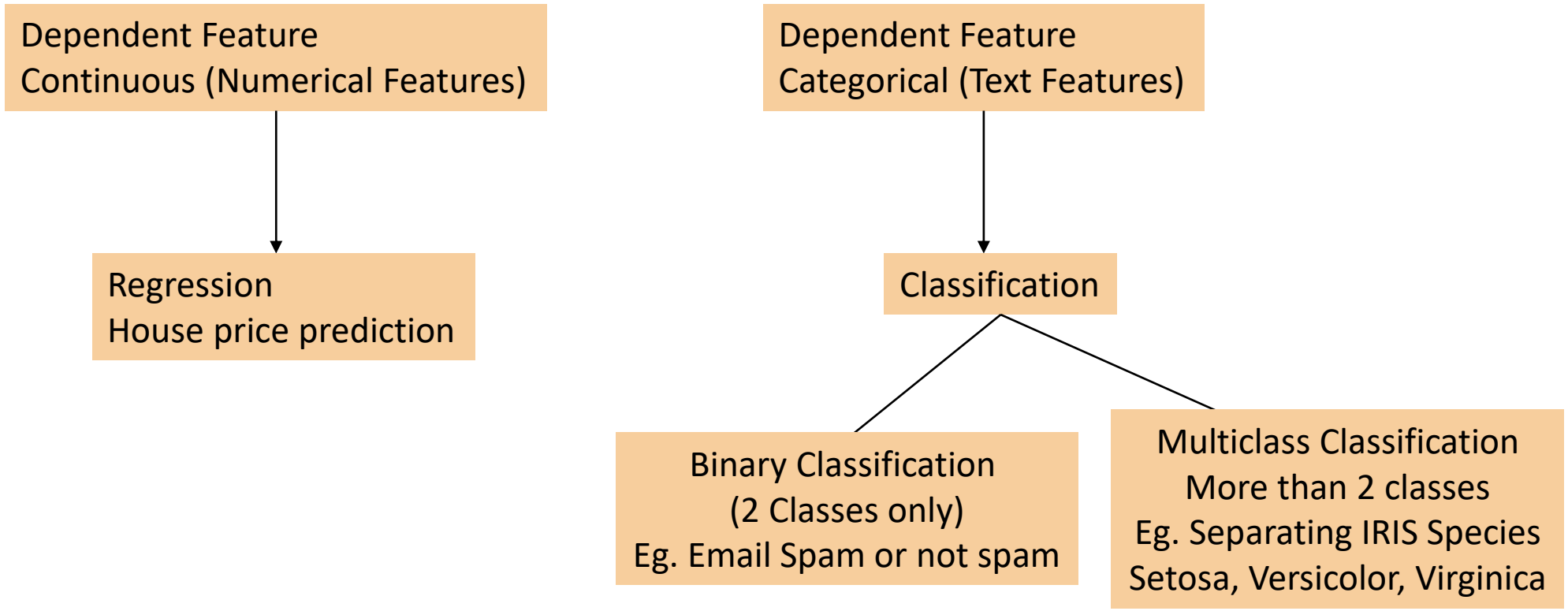
Decision Tree Regression

UTKARSH GAIKWAD

CLASS STARTING SHARP AT 2:05 PM WAITING FOR OTHER STUDENTS

Classification vs Regression



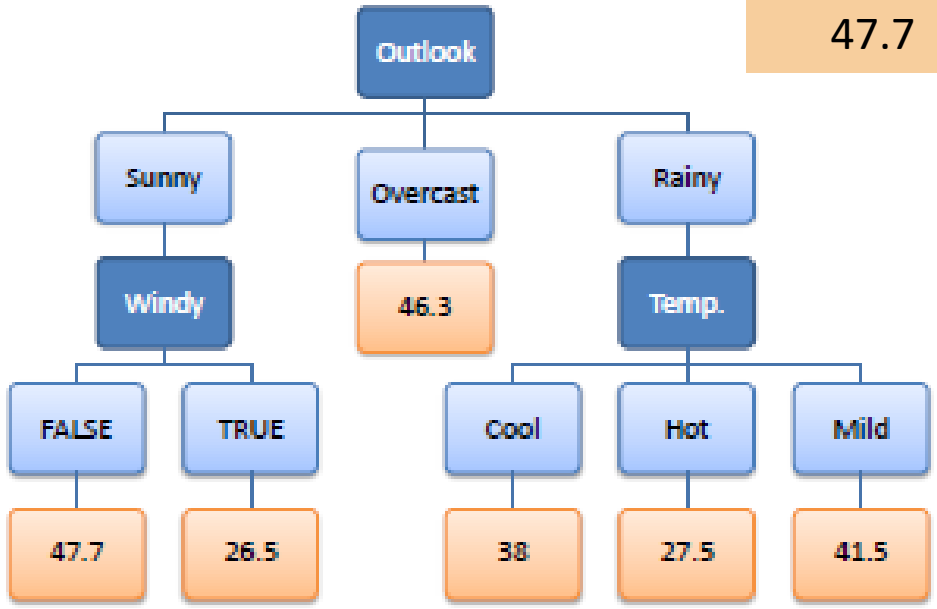
CART

- C – Classification
- A – And
- R – Regression
- T – Trees

Decision Tree Regression Example

Predictors | Target

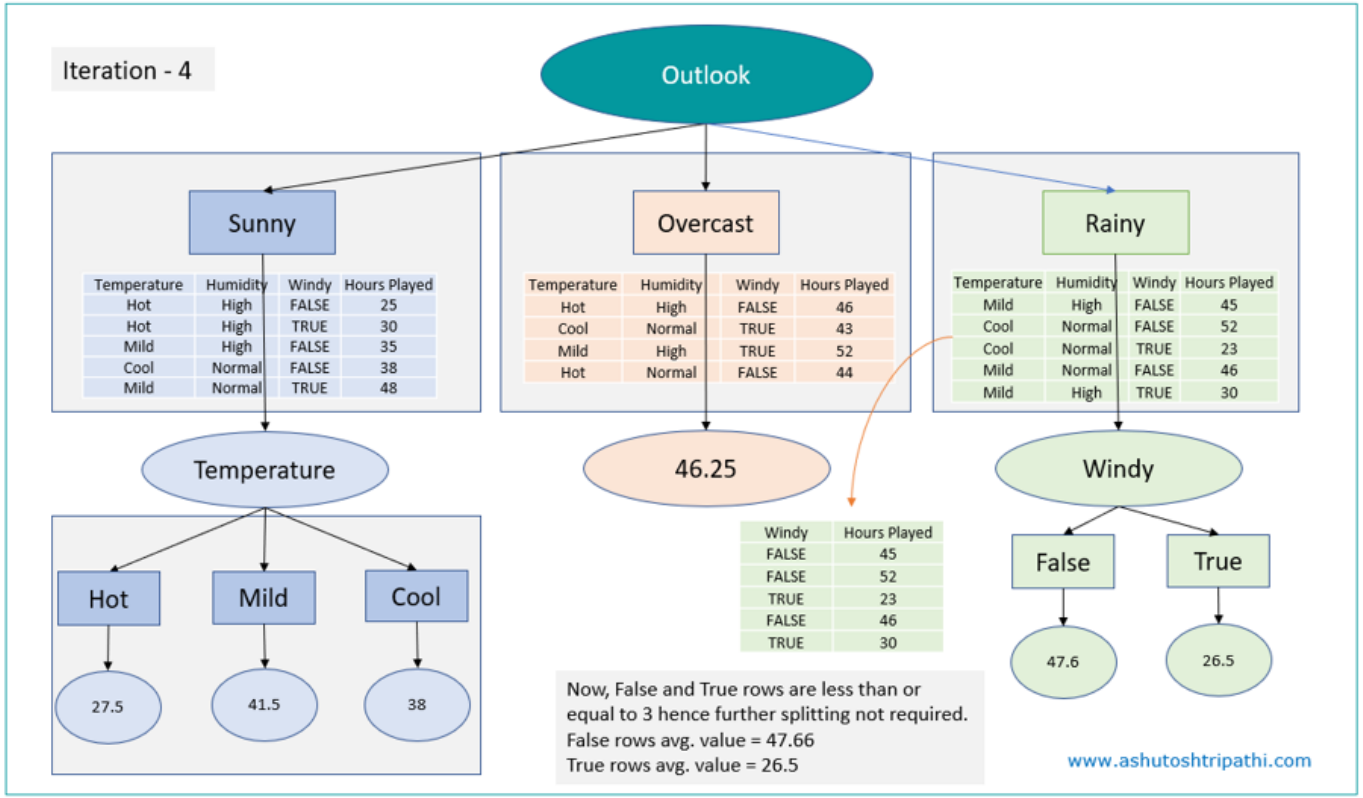
Outlook	Temp.	Humidity	Windy	Hours Played
Rainy	Hot	High	False	26
Rainy	Hot	High	True	30
Overcast	Hot	High	False	48
Sunny	Mild	High	False	46
Sunny	Cool	Normal	False	62
Sunny	Cool	Normal	True	23
Overcast	Cool	Normal	True	43
Rainy	Mild	High	False	36
Rainy	Cool	Normal	False	38
Sunny	Mild	Normal	False	48
Rainy	Mild	Normal	True	48
Overcast	Mild	High	True	52
Overcast	Hot	Normal	False	44
Sunny	Mild	High	True	30



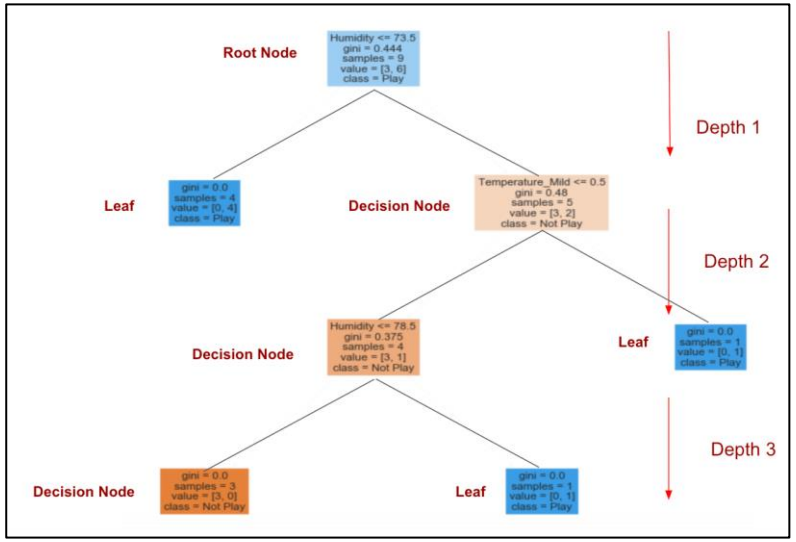
Sunny, Wind False 47.7

Leaf Node takes average of all the values which Satisfy condition

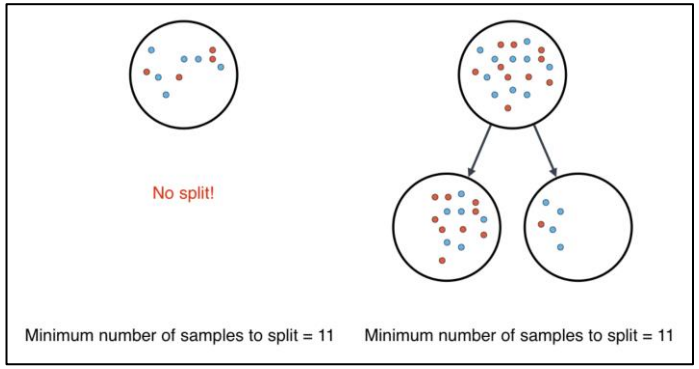
Average is calculated for DTR



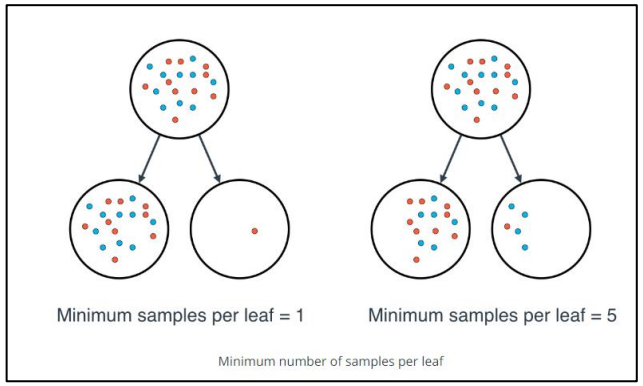
Parameters for Decision Tree Regression



Max Depth



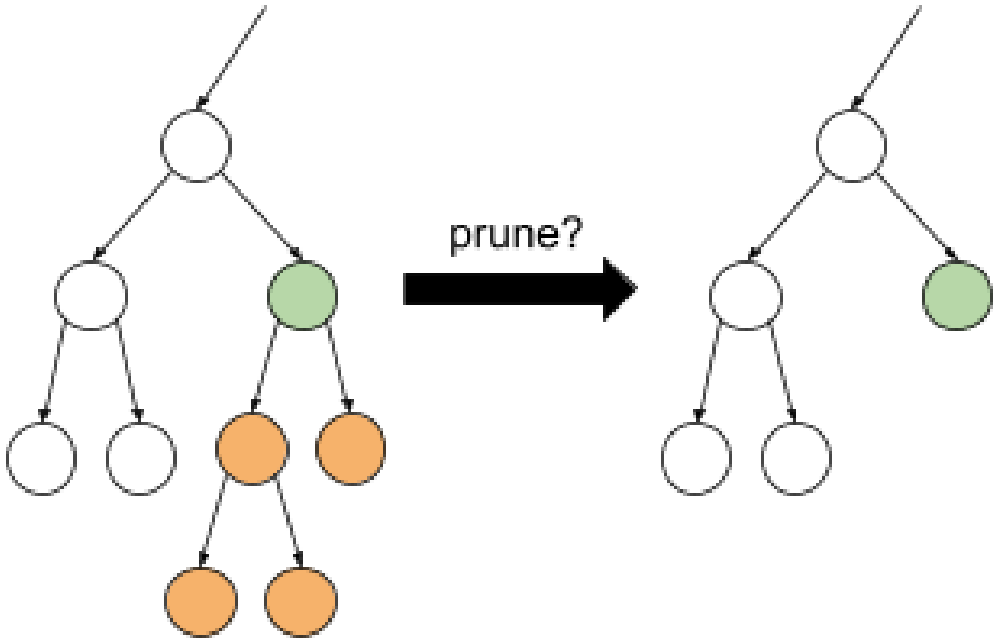
Min Samples Split



Min Samples Leaf

Criterion : squared_error, absolute_error

Decision Tree Pruning



Max Depth Reduce

Pruning is performed to avoid Over Fitting Problem

Thank you

FOR ANY QUERIES PING ME ON SKYPE