Decision Tree

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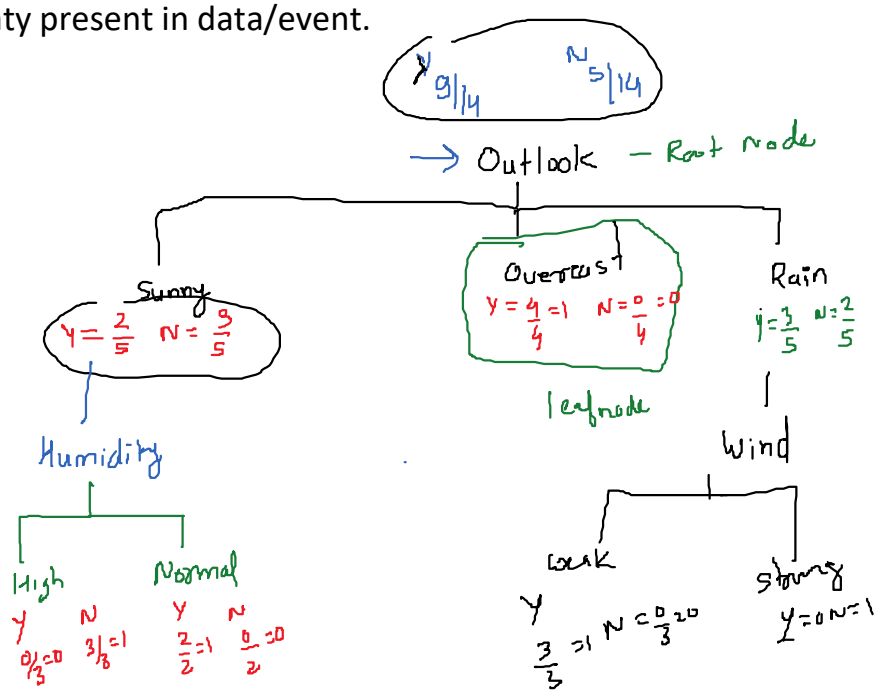
Decision Tree

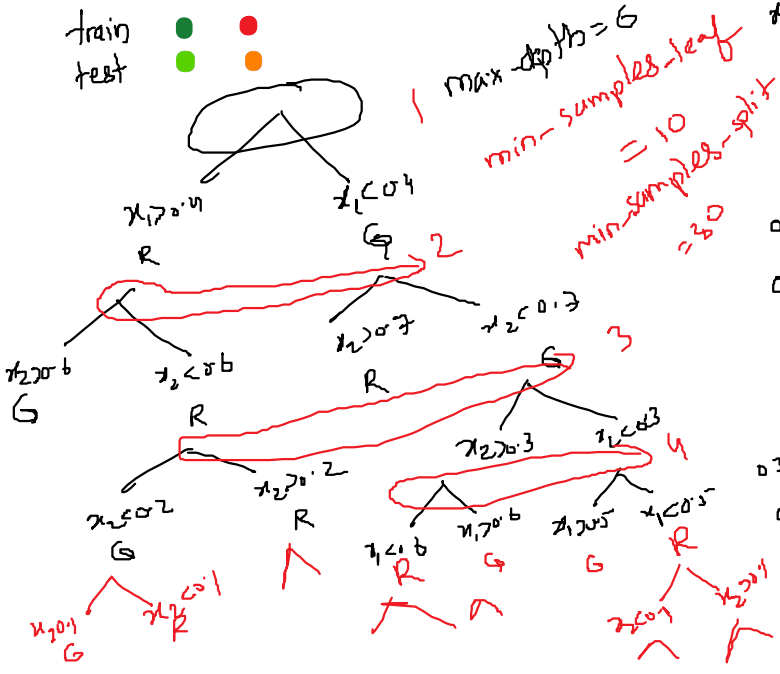
- A supervised ML algorithm, used for both regression and classification
- A non linear model, it can learn non linear relation between features and target attributes
- It needs more size of data to learn effectively.
- It also gets flooded with high dimensional data (when numbers of features are way too high) (a thumb rule is often upto 200-250 features, it works well).
- Decision Tree is one of the most explainable technique.

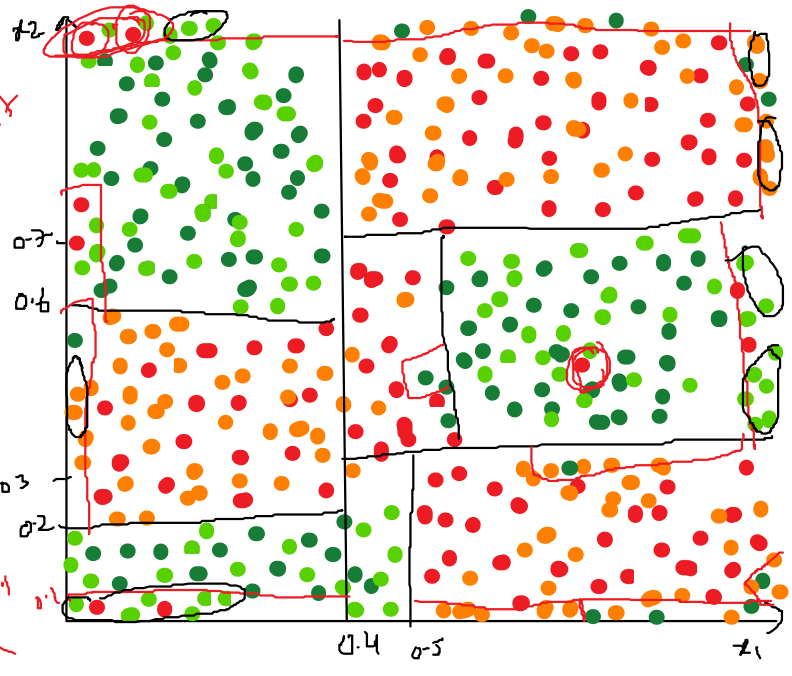
Entropy: a measure of amount of uncertainty present in data/event.

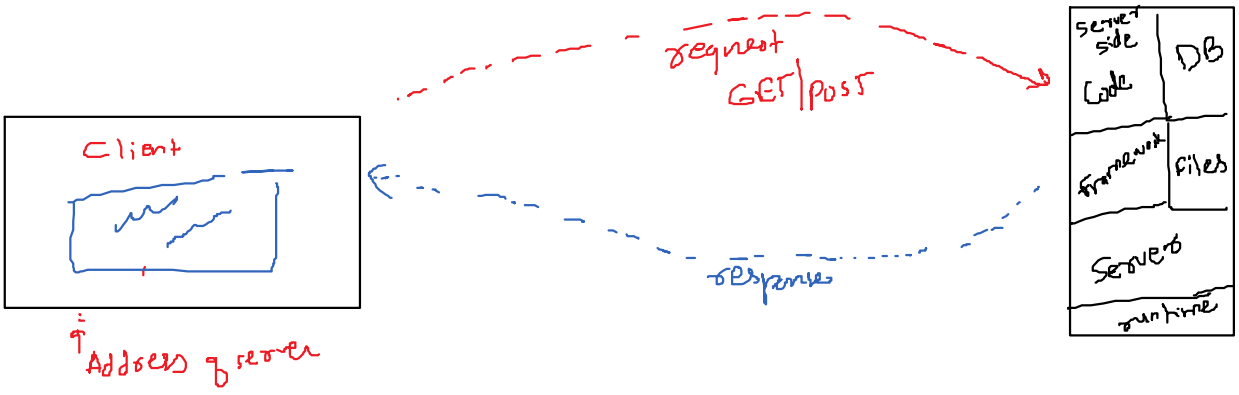
$$\sum_{i=1}^{c} p_i \log p_i$$

Day		Outlook	Humidity	Wind	Play
D1	1	Sunny	High	Weak	No
D2	2	Sunny	High	Strong	No
D3		Overcast	High	Weak	Yes
D4	1	Rain	High	Weak	Yes
D5	2	Rain	Normal	Weak	Yes
D6	3	Rain	Normal	Strong	No
D7		Overcast	Normal	Strong	Yes
D8	1	Sunny	High	Weak	No
D9	4	Sunny	Normal	Weak	Yes
D10	4	Rain	Normal	Weak	Yes
D11	5	Sunny	Normal	Strong	Yes
D12		Overcast	High	Strong	Yes
D13		Overcast	Normal	Weak	Yes
D14	5	Rain	High	Strong	No








request
GET/POST
Client
server side
Code
DB
Framework
files
Server
runtime
response
Address of server