Decision Tree Assignment

Outlook G.I = 0.342

Temperature G.I = 0.404

Humidity G.I = 0.367

Wind G.I = 0.82

Therefore start the tree with Outlook as root node.

Temperature

Hot = $1 - (2/2)^2 = 0$

Mild = $1 - (3/5)^2 - (2/5)^2 = 0.48$

Cold = $1 - (2/3)^2 - (1/3)^2 = 0.444$

Temperature G.I = **0.373**

Humidity

Normal = $1 - (4/5)^2 - (1/5)^2 = 0.32$
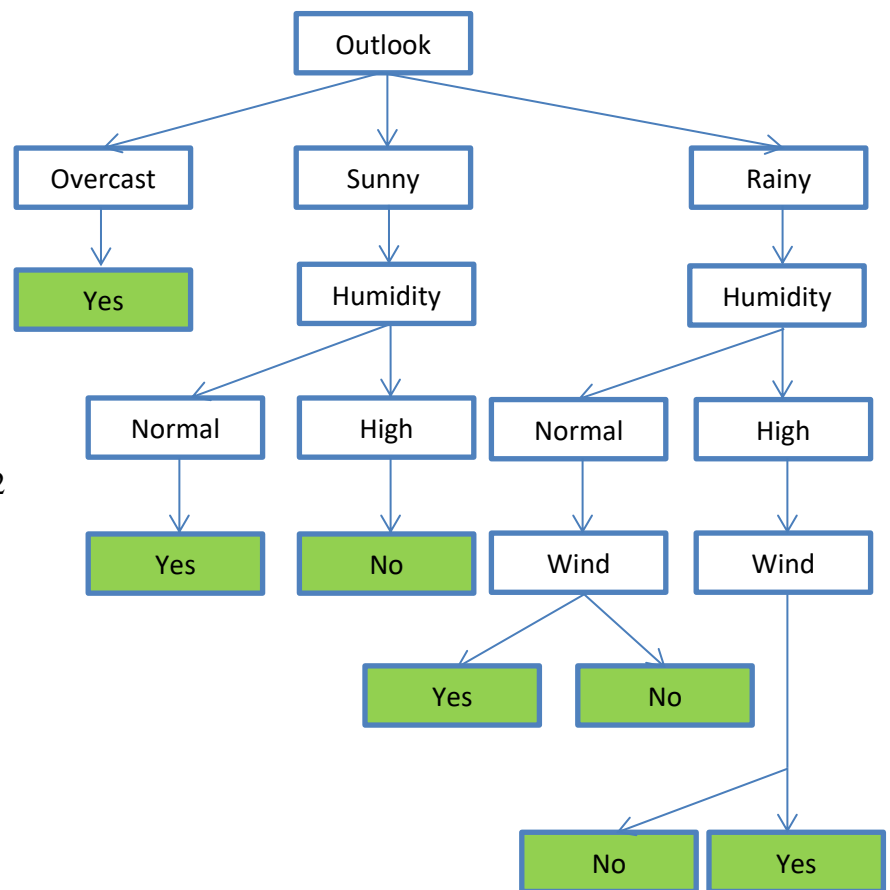
High = $1 - (4/5)^2 - (1/5)^2 = 0.32$

Humidity G.I = **0.32**

Wind

Weak = $1 - (4/6)^2 - (2/6)^2 = 0.444$

Strong = $1 - (3/4)^2 - (1/4)^2 = 0.375$

Wind G.I = **0.416**

Temperature

Mild = $1 - (2/3)^2 - (1/3)^2 = 0.444$

Cold = $1 - (1/2)^2 - (1/2)^2 = 0.5$

Humidity G.I = 0.666

Wind

Weak = $1 - (3/3)^2 = 0$

Strong = $1 - (2/2)^2 = 0$

Wind G.I = 0