Print Entropy of Feature Y

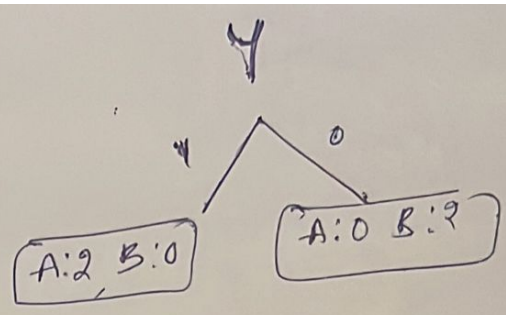
FUNDAMENTALS OF DATA SCIENCE Discussion Assignments Week 5 Discussion Assignment 2: Decision Trees - Entropy

Entropy of Feature Y

Created by Yoganand Lankapalli on Oct 27, 2022 11:36 PM Subscribed

(2) feature Y

Y	A	B
1	2	0
0	0	2



Entropy of the parent node $= (-2/4)\log_2(2/4) - (2/4)\log_2(2/4)$

$= ((-1/2)\log_2(1/2) - (1/2)\log_2(1/2))$

$= 1$

$E_1 = (-2/2)\log_2(2/2) - (0/2)\log_2(0/2)$

$= 0$

$E_2 = -(0/2)\log_2(0/2) - (2/2)\log_2(2/2)$

$= 0$

Gain of the feature $Y = E_0 - E_1$

$= 1 - 0$

$= 1$

No items found.