No

Date :

1 Entrophy (class) = $-\Sigma p(c) \times \log_2(p(c))$

$p(c)$ → probabilites class

2 P(pass) = (3+2+1) / 10 = 6/10 = 0.6

P(Fail) = (1+1+2) // 10 / 4/10 = 0.4

Entrophy class = $-(0.6 \times \log_2(0.6) + 0.4 \times \log(0.4) = 0.947$

a. Online course

P(a) → probalabilites nilai atribut a

Entropy class | a → entropy kelas nilai a tertentu

Online course = Y

P(pass) | online course = Y) = 2/5 = 0.4

P(Fail) | Online course = Y) 1/5 = 0.2

entropy (class | onlin course = Y) = $-($0.4 \times \log_2(0.4) + 0.2 \times \log_2$ (0.2)) = 0.811

Online course = N

P(pass) | Onlin coreuc N = 1/5 = 0.2

P(Fail) | a a N, 3/5 = 0.6

= $-(0.2) \times \log_2(0.2) + 0.6 \times (\log 2(0.6)) = 0.918$

Entropy class | Onlire corse = (3/5 × 0.811) + (2/5 × 0.918) = 0.857

IG = Entropy class − Fentropy class online corse

= 0.947 − 0.857

= 0.09

You'll never know till you have tried