

Tugas Nolve Bayes Classification

* Label

$$P(\text{Tidak Puas}) = 9/20$$

$$P(\text{Cukup Puas}) = 10/20$$

$$P(\text{Sangat Puas}) = 6/20$$

① Kolom Jenis Pelanggan

$$P(\text{Baru} | \text{Tidak Puas}) = 4/9$$

$$P(\text{Seseorang} | \text{Cukup Puas}) = 6/10$$

$$P(\text{Rutin} | \text{Cukup Puas}) = 4/10$$

$$P(\text{Rutin} | \text{Sangat Puas}) = 2/6$$

$$P(\text{Loyal} | \text{Sangat Puas}) = 4/6$$

② Kolom Metode Pembelajaran

$$P(\text{COD} | \text{Tidak Puas}) = 4/9$$

$$P(\text{Transfer Bank} | \text{Cukup Puas}) = 5/10$$

$$P(\text{E-wallet} | \text{Cukup Puas}) = 5/10$$

$$P(\text{Kartu Kredit} | \text{Sangat Puas}) = 5/6$$

$$P(\text{E-wallet} | \text{Sangat Puas}) = 1/6$$

③ Kolom Total Belanja

$$P(\text{Rendah} | \text{Tidak Puas}) = 4/9$$

$$P(\text{Rendah} | \text{Cukup Puas}) = 2/10$$

$$P(\text{Sedang} | \text{Cukup Puas}) = 7/10$$

$$P(\text{Tinggi} | \text{Sangat Puas}) = 6/6$$

$$P(\text{Tinggi} | \text{Cukup Puas}) = 1/10$$

④ Kolom Promo Favorite

$$P(\text{Gratis Ongkir} | \text{Tidak Puas}) = 3/9$$

$$P(\text{Diskon} | \text{Cukup Puas}) = 3/10$$

$$P(\text{Cash back} | \text{Cukup Puas}) = 3/10$$

$$P(\text{Cash back} | \text{Sangat Puas}) = 3/6$$

$$P(\text{Diskon} | \text{Sangat Puas}) = 3/6$$

$$P(\text{Gratis Ongkir} | \text{Cukup Puas}) = 4/10$$

$$P(\text{Diskon} | \text{Tidak Puas}) = 1/9$$

Memprediksi 3 Data Uji

1) Data Uji 1 (ID 21)

$$\begin{aligned} * P(\text{ID 21} | \text{Tidak Puas}) &= P(\text{Tidak Puas}) \times P(\text{Baru} | \text{Tidak Puas}) \times P(\text{Transfer Bank} | \text{Tidak Puas}) \times P(\text{Rendah} | \text{Tidak Puas}) \times P(\text{Cashback} | \text{Tidak Puas}) \\ &= \frac{4}{20} \times \frac{4}{9} \times \frac{0}{9} \times \frac{4}{9} \times \frac{0}{9} = 0 \end{aligned}$$

$$\begin{aligned} * P(\text{ID 21} | \text{Cukup Puas}) &= P(\text{Cukup Puas}) \times P(\text{Baru} | \text{Cukup Puas}) \times P(\text{Transfer Bank} | \text{Cukup Puas}) \times P(\text{Rendah} | \text{Cukup Puas}) \times P(\text{Cashback} | \text{Cukup Puas}) \\ &= \frac{10}{20} \times \frac{0}{10} \times \frac{5}{10} \times \frac{2}{10} \times \frac{3}{10} = 0 \end{aligned}$$

$$\begin{aligned} * P(\text{ID 21} | \text{Sangat Puas}) &= P(\text{Sangat Puas}) \times P(\text{Baru} | \text{Sangat Puas}) \times P(\text{Transfer Bank} | \text{Sangat Puas}) \times P(\text{Rendah} | \text{Sangat Puas}) \times P(\text{Cashback} | \text{Sangat Puas}) \\ &= \frac{6}{10} \times \frac{0}{6} \times \frac{0}{6} \times \frac{0}{6} \times \frac{3}{6} = 0 \end{aligned}$$

2) Data Uji 2 (ID 22)

$$\begin{aligned} * P(\text{ID 22} | \text{Tidak Puas}) &= P(\text{Tidak Puas}) \times P(\text{Loyal} | \text{Tidak Puas}) \times P(\text{Ewallet} | \text{Tidak Puas}) \times P(\text{Tinggi} | \text{Tidak Puas}) \times P(\text{Gratis Ongkir} | \text{Tidak Puas}) \\ &= \frac{4}{20} \times \frac{0}{9} \times \frac{0}{9} \times \frac{0}{9} \times \frac{3}{9} = 0 \end{aligned}$$

$$\begin{aligned} * P(\text{ID 23} | \text{Cukup Puas}) &= P(\text{Cukup Puas}) \times P(\text{Loyal} | \text{Cukup Puas}) \times P(\text{Ewallet} | \text{Cukup Puas}) \times P(\text{Tinggi} | \text{Cukup Puas}) \times P(\text{Gratis Ongkir} | \text{Cukup Puas}) \\ &= \frac{10}{10} \times \frac{0}{10} \times \frac{5}{10} \times \frac{1}{10} \times \frac{4}{10} = 0 \end{aligned}$$

$$\begin{aligned} * P(\text{ID 23} | \text{Sangat Puas}) &= P(\text{Sangat Puas}) \times P(\text{Loyal} | \text{Sangat Puas}) \times P(\text{Ewallet} | \text{Sangat Puas}) \times P(\text{Tinggi} | \text{Sangat Puas}) \times P(\text{Gratis Ongkir} | \text{Sangat Puas}) \\ &= \frac{6}{10} \times \frac{4}{6} \times \frac{1}{6} \times \frac{5}{6} \times \frac{0}{6} = 0 \end{aligned}$$

3) Data Uji 3 (10 23)

$$\begin{aligned} * P(10\ 23 \mid \text{Tidak puas}) &= P(\text{Tidak puas}) \times P(\text{Rutem} \mid \text{Tidak puas}) \times P(\text{COD} \mid \text{Tidak puas}) \\ &\quad \times P(\text{Sedang} \mid \text{Tidak puas}) \times P(\text{Diskon} \mid \text{Tidak puas}) \\ &= \frac{4}{20} \times \frac{0}{4} \times \frac{4}{4} \times \frac{0}{4} \times \frac{1}{4} = 0 \end{aligned}$$

$$\begin{aligned} * P(10\ 23 \mid \text{Cukup puas}) &= P(\text{Cukup puas}) \times P(\text{Rutem} \mid \text{Cukup puas}) \times P(\text{COD} \mid \text{Cukup puas}) \\ &\quad \times P(\text{Sedang} \mid \text{Cukup puas}) \times P(\text{Diskon} \mid \text{Cukup puas}) \\ &= \frac{10}{10} \times \frac{4}{10} \times \frac{0}{10} \times \frac{2}{10} \times \frac{2}{10} = 0 \end{aligned}$$

$$\begin{aligned} * P(10\ 23 \mid \text{Sangat puas}) &= P(\text{Sangat puas}) \times P(\text{Rutem} \mid \text{Sangat puas}) \times P(\text{COD} \mid \text{Sangat puas}) \\ &\quad \times P(\text{Sedang} \mid \text{Sangat puas}) \times P(\text{Diskon} \mid \text{Cukup puas}) \\ &= \frac{6}{20} \times \frac{2}{16} \times \frac{0}{6} \times \frac{0}{6} \times \frac{2}{6} = 0 \end{aligned}$$