

Tugas Naive Bayes Classification

* Label

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

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

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

① Kolom Jenis Belanjaan

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

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

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

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

$$P(\text{Logar} | \text{Sangat Puas}) = 4/10$$

② Kolom Metode Pembelajaran

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

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

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

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

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

③ Kolom Total Belanja

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

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

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

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

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

④ Kolom Promo Favorit

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

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

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

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

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

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

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

Memprediksi 3 Data Uji

1) Data Uji 1 (ID 21)

$$* P(ID 21 | \text{Tidak Puas}) = P(\text{Tidak Puas}) \times P(\text{Baru} | \text{Tidak Puas}) \times P(\text{Transfer Bank} | \text{Tidak Puas}) \times P(\text{Rendah} | \text{Tidak Puas}) \times P(\text{cashback} | \text{Tidak Puas}) \\ = \frac{9}{20} \times \frac{4}{9} \times \frac{5}{9} \times \frac{2}{9} \times \frac{0}{9} = 0$$

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

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

2) Data Uji 2 (ID 22)

$$* P(ID 22 | \text{Tidak Puas}) = P(\text{Tidak Puas}) \times P(\text{Logal} | \text{Tidak Puas}) \times P(\text{Ewallet} | \text{Tidak Puas}) \times P(\text{Tinggi} | \text{Tidak Puas}) \times P(\text{Gratis Ongkir} | \text{Tidak Puas}) \\ = \frac{9}{20} \times \frac{0}{9} \times \frac{0}{9} \times \frac{0}{9} \times \frac{3}{9} = 0$$

$$* P(ID 22 | \text{Cukup Puas}) = P(\text{Cukup Puas}) \times P(\text{Logal} | \text{Cukup Puas}) \times P(\text{Ewallet} | \text{Cukup Puas}) \times P(\text{Tinggi} | \text{Cukup Puas}) \times P(\text{Gratis Ongkir} | \text{Cukup Puas}) \\ = \frac{10}{20} \times \frac{0}{10} \times \frac{5}{10} \times \frac{1}{10} \times \frac{9}{10} = 0$$

$$* P(ID 22 | \text{Sangat Puas}) = P(\text{Sangat Puas}) \times P(\text{Logal} | \text{Sangat Puas}) \times P(\text{Ewallet} | \text{Sangat Puas}) \times P(\text{Tinggi} | \text{Sangat Puas}) \times P(\text{Gratis Ongkir} | \text{Sangat Puas}) \\ = \frac{6}{10} \times \frac{9}{6} \times \frac{1}{6} \times \frac{5}{6} \times \frac{0}{6} = 0$$

3) Data Uji 3 (ID 23)

$$\begin{aligned} * P(\text{ID 23} | \text{Tidak Puras}) &= P(\text{Tidak Puras}) \times P(\text{Rutin} | \text{Tidak Puras}) \times P(\text{COPD} \\ &\quad | \text{Tidak Puras}) \times P(\text{Sedang} | \text{Tidak Puras}) \times P(\text{Diskon}) \\ &\quad | \text{Tidak Puras}) \\ &= \frac{9}{20} \times \frac{0}{9} \times \frac{4}{9} \times \frac{0}{9} \times \frac{1}{9} = 0 \end{aligned}$$

$$\begin{aligned} * P(\text{ID 23} | \text{Cukup Puras}) &= P(\text{Cukup Puras}) \times P(\text{Rutin} | \text{Cukup Puras}) \times P(\text{COPD} \\ &\quad | \text{Cukup Puras}) \times P(\text{Sedang} | \text{Cukup Puras}) \times P(\text{Diskon}) \\ &\quad | \text{Cukup Puras}) \\ &= \frac{10}{10} \times \frac{9}{10} \times \frac{0}{10} \times \frac{7}{10} \times \frac{0}{10} = 0 \end{aligned}$$

$$\begin{aligned} * P(\text{ID 23} | \text{Sangat Puras}) &= P(\text{Sangat Puras}) \times P(\text{Rutin} | \text{Sangat Puras}) \times P \\ &\quad (\text{COPD} | \text{Sangat Puras}) \times P(\text{Sedang} | \text{Sangat Puras}) \times P \\ &\quad (\text{Diskon} | \text{Cukup Puras}) \\ &= \frac{6}{20} \times \frac{2}{16} \times \frac{0}{6} \times \frac{0}{6} \times \frac{3}{6} = 0 \end{aligned}$$