

DAFTAR PUSTAKA

- Abdullah, S. (2013). *Penerapan Algoritma Decision Tree C4.5 Untuk Diagnosa Penyakit Stroke Dengan Klasifikasi Data Mining Pada Rumah Sakit Santa Maria Pemalang. Semarang.*
- Arifin, O., & Sasongko, T. B. (2018). Analisa perbandingan tingkat performansi metode support vector machine dan naïve bayes classifier. *Seminar Nasional Teknologi Informasi Dan Multimedia 2018*, 6(1), 67–72.
- Ekata, Tyagi, P. K., Gupta, N. K., & Gupta, S. (2016). Diagnosis of Pulmonary Tuberculosis using Fuzzy Inference System. *IEEE Second International Innovative Applications of Computational Intelligence on Power, Energy and Controls with their Impact on Humanity. CIPECH*, 3–7. 10.1109/CIPECH.2016.7918726
- Fitri Nuraeni, Rahadi Deli Saputra, and N. S. U. (2013). Algoritma C4.5 Untuk Klasifikasi Pola Pembayaran Kredit Motor Pada Perusahaan Pembiayaan (Leasing). *Seminar Nasional Informatika.*
- Furqan, M., Kurniawan, R., & HP, K. (2020). Evaluasi Performa Support Vector Machine Classifier Terhadap Penyakit Mental. *Jurnal Sistem Informasi Bisnis (JSINBIS)*, 10(2), 203–210. <https://doi.org/10.21456/vol10iss2pp203-210>
- Ibrahim, I. (2017). Faktor Yang Mempengaruhi Kejadian TB Paru di Wilayah Kota Tidore. *Global Health Science, Volume 2*(Issue 1, ISSN 2503-5088), 34–40.
- Jaya, U. B., Studi, P., Informatika, T., Komputer, F. I., & Jaya, U. B. (2019). *Perbandingan Algoritma Naïve Bayes Dan Support Vector Machine (Svm).* 3(2), 178–194.
- Jiawei Han, M. K. (2006). *Data Mining: concept and techniques.* Elsevier Inc.
- Kemenkes RI. (2018). Infodatin Tuberkulosis. *Kementerian Kesehatan RI*, 1–8.
- Kusrini, & Luthfi, T. E. (2009). *Algoritma Data Mining.* Andi.

- Orhan, E., Temurtas, F., & Tanrikulu, A. Ç. (2010). Tuberculosis Disease Diagnosis Using Artificial Neural Networks. *Springer*, 299–302.
- Pasrun, Y. P. (2019). Penerapan Metode Naïve Bayes untuk Klasifikasi Penyakit Ispa. *SemanTIK*, 5(2), 295–302.
- Prasetyo, E. (2012). *Data Mining Konsep dan Aplikasi menggunakan MATLAB*. ANDI.
- Riyanto, U. (2019). Analisis Perbandingan Algoritma Naive Bayes Dan Support Vector Machine Dalam Mengklasifikasikan Jumlah Pembaca Artikel Online. *JIKA (Jurnal Informatika)*, 2(2), 62–72. <https://doi.org/10.31000/.v2i2.1521>
- S. Defiyanti and M. Kom. (2013). *Analisis dan Prediksi Kinerja Mahasiswa Menggunakan Teknik Data Mining*. 2, 1–8.
- Setiadi, N. J. (2003). *Perilaku Konsumen: Konsep dan Implikasi untuk Strategi dan Penelitian Pemasaran*. Prenada Media.
- Sitorus, L. (2015). *Algoritma dan Pemrograman*. ANDI.
- Suyanto. (2017). *Data Mining Untuk Klasifikasi Dan Klasterisasi Data*. Informatika Bandung.
- Vapnik, V dan Cortes, C. (1995). *Support Vector Networks*. *Machine Learning*. 20, 273–297.
- Widoyono. (2011). *Penyakit Tropis Epidemiologi, Penularan, Pencegahan dan Pemberantasan*. Erlangga.
- World Health Organization. (2019). *Are Updated Every Year . for the Tuberculosis*. https://www.who.int/tb/publications/global_report/en/
- Zhang, H. (2004). The Optimality of Naive Bayes. *FLAIRS Conference*.

LAMPIRAN

1. Data Set Penyakit TBC Rumah Sakit Umum Rantau Prapat

No	Nama	Jenis Kelamin	Batuk (Hari)	Penurunan Berat Badan (Kg)	Nyeri Dada (Kali)	Sesak Nafas (Kali)	Berkeringat Malam Hari (hari)	Batuk Darah (Kali)	Tuberkulosis (TBC)
			<7 hr = Normal	<2 kg = Normal	<2 kali = Normal	<2 kali = Normal	<2 hr = Normal	0 kali = Normal	
			7-14 hr = Sedang	2 - 4 kg = Sedang	2-3 kali = Sedang	2-3 kali = Sedang	2-3 hr = Sedang	1 kali = Sedang	
			> 14 hr = Bahaya	> 4 kg = Bahaya	>3 kali = Bahaya	>3 kali = Bahaya	>3 hr = Bahaya	>2 kali = Bahaya	
1	Tn	L	13	2	1	3	6	2	Positif
2	Ny.	P	15	3	5	4	2	1	Positif
3	Anak	P	23	1	6	4	2	0	Positif
4	Ny.	P	13	3	3	4	5	1	Positif
5	Tn.	L	5	3	3	3	3	0	Negatif
6	Ny.	P	8	3	3	5	8	3	Positif
7	Tn.	L	14	1	3	4	2	4	Positif
8	Ny.	P	11	9	3	2	5	3	Positif
9	Anak	L	8	1	3	2	5	3	Positif
10	Tn.	L	10	1	4	2	4	2	Positif
11	Ny.	P	20	1	4	2	2	3	Positif
12	Tn.	L	9	1	2	3	6	0	Negatif
13	Ny.	P	10	3	3	3	7	1	Positif
14	Anak	L	32	3	2	2	2	4	Positif
15	Ny.	P	22	2	4	3	4	1	Positif
16	Try.	L	17	1	4	3	2	4	Positif
17	Ny.	P	12	2	1	3	2	0	Negatif
18	Tn	L	16	3	7	6	6	0	Positif
19	Ny.	P	7	2	6	2	5	3	Positif
20	Anak	L	15	3	4	3	3	0	Positif
21	Tn.	L	19	5	4	3	3	2	Positif
22	Ny.	P	11	3	2	4	6	1	Positif
23	Ny.	P	2	5	6	2	5	3	Positif
24	Tn.	L	9	2	3	4	1	8	Negatif
25	Tn.	L	10	1	4	5	2	5	Positif
26	Ny.	P	21	2	2	3	2	2	Positif
27	Anak	P	22	2	3	3	7	2	Positif
28	Ny	P	16	1	4	3	6	1	Positif
29	Anak	L	6	2	2	3	1	4	Negatif
30	Ny.	P	6	2	2	2	8	2	Positif
31	Tn.	L	16	1	4	7	2	1	Positif
32	Tn.	L	21	2	4	2	7	1	Positif
33	Ny.	P	6	2	4	3	7	7	Positif
34	Ny.	P	12	2	6	3	4	1	Positif
35	Anak	P	5	0	3	3	2	0	Negatif
36	Ny.	P	12	1	2	1	6	4	Positif
37	Ny.	P	12	3	2	3	7	3	Positif
38	Ny.	P	6	1	8	3	2	4	Positif
39	Ny.	P	13	1	3	3	3	4	Negatif
40	Anak	L	12	1	1	4	2	2	Positif
41	Ny.	P	9	1	7	6	2	4	Positif
42	Anak	P	19	2	2	3	5	1	Positif
43	Tn.	L	10	1	6	2	6	2	Positif
44	Tn.	L	15	2	1	2	2	3	Positif
45	Ny.	P	15	3	3	3	2	1	Positif
46	Ny.	P	21	1	5	3	1	3	Positif
47	Tn.	L	13	3	6	2	0	3	Positif
48	Tn.	L	12	1	7	4	3	2	Positif
49	Anak	P	13	1	3	6	3	4	Positif
50	Tn.	L	13	1	4	2	2	2	Positif
51	Anak	P	6	3	5	2	1	0	Negatif
52	Tn.	L	13	1	4	2	4	2	Positif
53	Ny.	P	5	1	4	1	4	4	Positif
54	Tn.	L	20	1	4	3	2	1	Positif
55	Ny.	P	9	2	2	3	6	5	Positif
56	Tn.	L	19	1	2	3	1	1	Positif
57	Tn.	L	6	3	2	2	2	4	Positif
58	Tn.	L	13	1	5	3	4	1	Positif
59	Tn.	L	22	2	4	1	2	2	Positif
60	Tn.	L	13	1	2	1	7	1	Positif
61	Anak	L	22	1	6	2	5	1	Positif
62	Ny.	P	13	3	7	6	6	3	Positif
63	Ny.	P	18	3	5	3	3	1	Positif
64	Tn.	L	3	2	4	7	8	2	Negatif
65	Ny.	P	10	3	2	7	7	1	Positif
66	Anak	L	13	3	6	2	3	3	Positif
67	Anak	L	11	2	5	7	7	2	Positif
68	Tn.	L	12	3	5	2	2	1	Positif
69	Ny.	P	21	5	2	6	2	1	Positif
70	Ny.	P	19	2	4	3	1	5	Positif

71	Tn.	L	18	2	3	3	4	1	Positif
72	Tn.	L	10	1	4	5	3	4	Positif
73	Tn.	L	18	2	4	2	3	1	Positif
74	Tn.	L	15	2	3	7	2	2	Positif
75	Ny.	P	10	1	1	3	0	0	Negatif
76	Tn.	L	10	5	5	5	1	3	Positif
77	Anak	P	16	4	6	5	1	1	Positif
78	Anak	L	5	2	7	3	2	8	Positif
79	Anak	L	10	3	2	4	6	1	Positif
80	Ny.	P	15	3	5	4	1	1	Positif
81	Tn.	L	7	1	1	4	7	5	Positif
82	Ny.	P	12	1	1	5	2	1	Positif
83	Anak	L	9	1	2	3	6	5	Positif
84	Tn.	L	19	2	4	5	0	1	Positif
85	Tn.	L	12	3	2	2	2	2	Positif
86	Anak	L	15	1	4	4	4	1	Positif
87	Ny.	P	16	1	5	2	2	1	Positif
88	Anak	P	21	2	5	2	7	2	Positif
89	Tn.	L	18	2	6	2	5	2	Positif
90	Tn.	L	17	3	7	6	6	0	Positif
91	Ny.	P	20	3	1	0	3	1	Positif
92	Tn.	L	18	2	5	7	1	2	Positif
93	Anak	L	12	2	5	4	1	1	Positif
94	Anak	L	12	3	6	2	3	1	Positif
95	Tn.	L	12	2	2	7	1	1	Positif
96	Ny.	P	19	3	5	2	2	1	Positif
97	Anak	L	11	2	2	6	2	1	Positif
98	Ny.	P	11	1	3	3	1	1	Negatif
99	Anak	L	10	2	3	3	0	0	Negatif
100	Ny.	P	11	1	5	2	3	4	Positif
101	Tn.	L	10	2	2	2	8	1	Positif
102	Ny.	P	11	1	3	7	2	1	Positif
103	Tn.	L	12	2	2	4	0	1	Positif
104	Ny.	P	27	1	7	7	1	0	Positif
105	Anak	L	16	1	6	4	4	1	Positif
106	Tn.	L	12	2	7	4	2	1	Positif
107	Ny.	P	17	3	2	5	6	1	Positif
108	Ny.	P	10	3	5	5	0	1	Positif
109	Ny.	P	22	3	8	2	2	4	Positif
110	Tn.	L	19	2	5	7	1	1	Positif
111	Ny.	P	19	3	5	2	2	1	Positif
112	Anak	P	10	2	1	5	2	5	Positif
113	Anak	L	15	1	3	2	0	3	Positif
114	Anak	L	16	1	4	5	2	2	Positif
115	Ny.	P	20	1	4	2	6	1	Positif
116	Tn.	L	15	2	2	3	7	1	Positif
117	Tn.	L	15	3	3	3	2	1	Positif
118	Ny.	P	21	3	2	2	4	2	Positif
119	Ny.	P	12	5	1	3	2	2	Positif
120	Anak	L	6	5	1	7	2	1	Positif
121	Ny.	P	13	2	2	3	2	0	Negatif
122	Ny.	P	18	2	6	2	5	1	Positif
123	Ny.	P	11	3	7	6	6	3	Positif
124	Ny.	P	6	3	0	3	3	1	Positif
125	Tn.	L	18	3	7	2	2	1	Positif
126	Ny.	P	16	3	2	4	1	1	Positif
127	Anak	P	11	3	2	2	3	1	Negatif
128	Tn.	L	18	2	0	7	1	2	Positif
129	Ny.	P	12	1	1	5	2	1	Positif
130	Ny.	P	23	2	2	6	2	1	Positif
131	Ny.	P	11	2	3	3	1	1	Negatif
132	Tn.	L	16	1	3	3	0	1	Positif
133	Ny.	P	15	2	5	0	3	2	Positif
134	Anak	P	17	2	2	2	3	2	Positif
135	Tn.	L	16	5	3	7	2	1	Positif
136	Anak	P	11	2	0	5	0	1	Positif
137	Ny.	P	10	2	1	2	0	2	Positif
138	Ny.	P	10	1	6	4	4	1	Positif
139	Tn.	L	10	2	7	5	2	2	Positif
140	Ny.	P	10	3	2	4	6	1	Positif
141	Tn.	L	11	3	2	3	7	1	Positif
142	Tn.	L	22	3	8	4	2	4	Positif
143	Tn.	L	9	3	3	3	3	1	Negatif
144	Tn.	L	21	3	2	2	2	2	Positif
145	Anak	P	10	2	0	4	2	4	Positif
146	Anak	L	10	1	2	5	7	4	Positif
147	Ny.	P	10	5	6	4	2	1	Positif
148	Ny.	P	9	1	6	2	3	1	Negatif
149	Anak	L	20	3	0	0	7	0	Positif
150	Ny.	P	18	2	0	0	1	1	Positif
151	Anak	L	9	3	7	2	2	4	Positif
152	Anak	L	16	3	2	4	1	1	Positif
153	Ny.	P	11	2	0	7	1	4	Positif
154	Ny.	P	11	3	5	2	2	1	Positif
155	Ny.	P	13	2	1	3	2	1	Negatif
156	Tn.	L	23	2	2	6	2	1	Positif
157	Ny.	P	16	2	3	3	0	0	Positif
158	Tn.	L	20	1	0	1	3	4	Positif
159	Tn.	L	15	2	5	4	3	2	Positif
160	Ny.	P	4	2	2	2	3	1	Negatif

161	Anak	P	12	2	0	4	0	1	Positif
162	Anak	P	5	1	5	3	1	0	Negatif
163	Anak	L	17	2	1	1	0	2	Positif
164	Anak	L	16	1	6	4	4	1	Positif
165	Ny.	P	18	3	2	1	6	1	Positif
166	Tn.	L	16	3	2	1	0	1	Positif
167	Ny.	P	11	3	2	3	7	1	Positif
168	Anak	L	22	3	8	1	2	4	Positif
169	Tn.	L	13	5	2	3	0	0	Negatif
170	Tn.	L	12	2	2	3	7	1	Positif
171	Tn.	L	22	3	8	1	2	4	Positif
172	Tn.	L	15	3	3	3	7	1	Positif
173	Tn.	L	11	1	0	5	4	4	Positif
174	Anak	P	12	1	0	1	2	5	Positif
175	Anak	L	7	2	2	4	7	4	Positif
176	Ny.	P	17	2	6	4	2	1	Positif
177	Tn.	L	17	3	7	3	3	1	Negatif
178	Anak	L	11	3	0	0	3	1	Positif
179	Ny.	P	18	2	0	7	1	1	Positif
180	Anak	L	9	3	7	2	2	4	Positif
181	Tn.	L	12	3	6	2	3	1	Positif
182	Tn.	L	11	1	3	3	1	1	Positif
183	Ny.	P	10	5	3	3	0	1	Positif
184	Tn.	L	11	2	0	1	3	4	Positif
185	Tn.	L	19	2	5	5	3	2	Positif
186	Ny.	P	12	1	2	6	2	1	Positif
187	Anak	L	15	1	3	2	0	3	Positif
188	Anak	L	16	1	4	4	4	2	Positif
189	Tn.	L	10	5	3	3	0	1	Negatif
190	Ny.	P	15	2	5	4	3	1	Positif
191	Anak	P	21	2	2	2	3	2	Positif
192	Tn.	L	22	1	3	7	2	3	Positif
193	Anak	P	21	2	0	1	0	1	Positif
194	Ny.	P	17	2	1	2	0	2	Positif
195	Ny.	P	13	1	6	3	3	1	Negatif
196	Tn.	L	5	2	7	0	2	0	Negatif
197	Anak	P	19	2	3	2	1	3	Positif
198	Tn.	L	9	3	3	3	3	1	Negatif
199	Tn.	L	17	3	2	2	2	2	Positif
200	Anak	P	12	2	0	4	2	4	Positif
201	Anak	L	15	1	2	5	7	4	Positif
202	Ny.	P	10	5	6	4	2	1	Positif
203	Ny.	P	9	1	6	2	3	1	Negatif
204	Anak	L	13	3	4	4	7	3	Positif
205	Ny.	P	18	2	2	1	1	1	Positif
206	Anak	L	9	3	7	2	2	4	Positif
207	Anak	L	19	3	2	4	1	1	Positif
208	Ny.	P	11	2	2	7	1	4	Positif
209	Ny.	P	11	3	5	2	2	1	Positif
210	Ny.	P	13	2	1	3	2	1	Negatif
211	Tn.	L	7	2	3	4	1	8	Negatif
212	Tn.	L	10	1	4	5	2	5	Positif
213	Ny.	P	21	2	2	3	2	2	Positif
214	Anak	P	22	2	3	3	7	2	Positif
215	Ny.	P	16	1	4	3	6	1	Positif
216	Anak	L	6	2	2	3	1	4	Negatif
217	Ny.	P	6	2	2	2	8	2	Positif
218	Tn.	L	16	1	4	7	1	1	Positif
219	Tn.	L	21	2	4	2	7	1	Positif
220	Ny.	P	6	2	4	3	7	7	Positif
221	Ny.	P	12	2	6	3	4	1	Positif
222	Anak	P	5	0	3	3	2	0	Negatif
223	Ny.	P	12	1	2	1	6	4	Positif
224	Ny.	P	12	3	2	3	7	3	Positif
225	Ny.	P	6	1	8	3	2	4	Positif
226	Ny.	P	13	1	3	3	3	4	Negatif
227	Anak	L	12	1	1	4	2	2	Positif
228	Ny.	P	9	1	7	6	2	4	Positif
229	Anak	P	19	2	2	3	5	1	Positif
230	Tn.	L	10	1	6	2	6	2	Positif
231	Tn.	L	15	2	1	2	2	3	Positif
232	Tn.	L	12	1	5	3	4	1	Positif
233	Tn.	L	22	2	4	1	2	2	Positif
234	Tn.	L	13	1	2	1	7	1	Positif
235	Anak	L	22	1	6	2	5	1	Positif
236	Ny.	P	13	3	7	6	6	3	Positif
237	Ny.	P	11	3	5	3	3	1	Positif
238	Tn.	L	9	1	2	3	5	0	Negatif
239	Ny.	P	10	3	3	3	7	1	Positif
240	Anak	L	32	3	2	2	2	4	Positif
241	Ny.	P	7	2	4	3	4	1	Positif
242	Try,	L	17	1	4	3	2	4	Positif
243	Ny.	P	12	2	1	3	2	0	Negatif
244	Ny.	P	5	1	4	1	4	4	Positif
245	Tn.	L	20	1	4	3	2	1	Positif
246	Ny.	P	9	2	2	3	6	5	Positif
247	Tn.	L	19	1	2	3	1	1	Positif
248	Tn.	L	6	3	2	2	2	4	Positif
249	Tn.	L	13	1	5	3	4	1	Positif
250	Tn.	L	22	2	4	1	2	2	Positif

2. Listing Program Matlab Naïve Bayes

```
filename = 'Dataset Pasien TBC.xlsx';
switch get(handles.cboDataUji, 'Value')
case 1
    DataUji=10;
    Sheet = 'Sheet1';
    input = xlsread(filename, Sheet, 'C2:H11');
    target = xlsread(filename, Sheet, 'I2:I11');
    Q = input (1:10,1:6)';
    TQ = target';

    [pnNaive10, minpNaive10, maxpNaive10, tnNaive10, mintN
    aive10, maxtNaive10] = premmx (Q, TQ);

    [pnNaive10, meanpNaive10, stdpNaive10, tnNaive10, mean
    tNaive10, stdtNaive10] = prestd (Q, TQ);
    netNaive10=newff(minmax(pnNaive10), [768 3
    1], {'tansig' 'logsig' 'purelin'}, 'traingdm');
    netNaive10.trainParam.epochs=200;
    netNaive10.trainParam.goal=1e-4;
    netNaive10.trainParam.lr=0.15;
    netNaive10.trainParam.lr_inc=0.5;
    netNaive10.trainParam.lr_dec=0.5;
    netNaive10.trainParam.mc=0.25;
    netNaive10.trainParam.show=20;

    save netNaive10;
    save meanpNaive10;
    save stdpNaive10;
    save meantNaive10;
    save minpNaive10;
    save maxpNaive10;

    %netNaive10=train(netNaive10, pnNaive10, tnNaive
    10);
    BobotAwal_Input= netNaive10.IW{1,1};
    set
    (handles.lbBobot, 'string', num2str(BobotAwal_Input)
    );
    QnNaive10=trastd(Q, meanpNaive10, stdpNaive10);
    bnNaive10=sim(netNaive10, QnNaive10);
    b=poststd(bnNaive10, meantNaive10, stdtNaive10);
```

case 2

```
DataUji=30;  
Sheet = 'Sheet1';  
input = xlsread(filename,Sheet,'C2:H31');  
target = xlsread(filename,Sheet,'I2:I31');  
Q = input (1:30,1:6)';  
TQ = target';
```

```
[pnNaive30,minpNaive30,maxpNaive10,tnNaive30,mintN  
aive30,maxtNaive30] = premmx (Q,TQ);
```

```
[pnNaive30,meanpNaive30,stdpNaive30,tnNaive30,mean  
tNaive30,stdtNaive30] = prestd (Q,TQ);
```

```
netNaive30=newff(minmax(pnNaive30),[768 3  
1],{'tansig' 'logsig' 'purelin'},'traingdm');
```

```
netNaive30.trainParam.epochs=200;  
netNaive30.trainParam.goal=1e-4;  
netNaive30.trainParam.lr=0.15;  
netNaive30.trainParam.lr_inc=0.5;  
netNaive30.trainParam.lr_dec=0.5;  
netNaive30.trainParam.mc=0.25;  
netNaive30.trainParam.show=20;
```

```
save netNaive30  
save meanpNaive30  
save stdpNaive30  
save meantNaive30  
save minpNaive30  
save maxpNaive30
```

```
%
```

```
netNaive30=train(netNaive30,pnNaive30,tnNaive30);  
BobotAwal_Input= netNaive30.IW{1,1};  
set  
(handles.lbBobot,'string',num2str(BobotAwal_Input)  
);
```

```
QnNaive30=trastd(Q,meanpNaive30,stdpNaive30);  
bnNaive30=sim(netNaive30,QnNaive30);  
b=poststd(bnNaive30,meantNaive30,stdtNaive30);
```

case 3

```
DataUji=50;
```

```

Sheet = 'Sheet1';
input = xlsread(filename,Sheet,'C2:H51');
target = xlsread(filename,Sheet,'I2:I51');
Q = input (1:50,1:6)';
TQ = target';

[pnNaive50,minpNaive50,maxpNaive10,tnNaive50,mintN
aive50,maxtNaive50] = premmx (Q,TQ);

[pnNaive50,meanpNaive50,stdpNaive50,tnNaive50,mean
tNaive50,stdtNaive50] = prestd (Q,TQ);
netNaive50=newff(minmax(pnNaive50),[768 3
1],{'tansig' 'logsig' 'purelin'},'traingdm');
netNaive50.trainParam.epochs=200;
netNaive50.trainParam.goal=1e-4;
netNaive50.trainParam.lr=0.15;
netNaive50.trainParam.lr_inc=0.5;
netNaive50.trainParam.lr_dec=0.5;
netNaive50.trainParam.mc=0.25;
netNaive50.trainParam.show=20;

save netNaive50
save meanpNaive50
save stdpNaive50
save meantNaive50
save minpNaive50
save maxpNaive50

%
netNaive50=train(netNaive50,pnNaive50,tnNaive50);
BobotAwal_Input= netNaive50.IW{1,1};
set
(handles.lbBobot,'string',num2str(BobotAwal_Input)
);
QnNaive50=trastd(Q,meanpNaive50,stdpNaive50);
bnNaive50=sim(netNaive50,QnNaive50);
b=poststd(bnNaive50,meantNaive50,stdtNaive50);

case 4
DataUji=70;
Sheet = 'Sheet1';
input = xlsread(filename,Sheet,'C2:H71');
target = xlsread(filename,Sheet,'I2:I71');

```



```

Q = input (1:70,1:6)';
TQ = target';

[pnNaive70,minpNaive70,maxpNaive10,tnNaive70,mintN
aive70,maxtNaive70] = prenmx (Q,TQ);

[pnNaive70,meanpNaive70,stdpNaive70,tnNaive70,mean
tNaive70,stdtNaive70] = prestd (Q,TQ);
netNaive70=newff(minmax(pnNaive70),[768 3
1],{'tansig' 'logsig' 'purelin'},'traingdm');
netNaive70.trainParam.epochs=200;
netNaive70.trainParam.goal=1e-4;
netNaive70.trainParam.lr=0.15;
netNaive70.trainParam.lr_inc=0.5;
netNaive70.trainParam.lr_dec=0.5;
netNaive70.trainParam.mc=0.25;
netNaive70.trainParam.show=20;

save netNaive70
save meanpNaive70
save stdpNaive70
save meantNaive70
save minpNaive70
save maxpNaive70

%
netNaive70=train(netNaive70,pnNaive70,tnNaive70);
BobotAwal_Input= netNaive70.IW{1,1};
set
(handles.lbBobot,'string',num2str(BobotAwal_Input)
);
QnNaive70=trastd(Q,meanpNaive70,stdpNaive70);
bnNaive70=sim(netNaive70,QnNaive70);
b=poststd(bnNaive70,meantNaive70,stdtNaive70);

otherwise
DataUji=100;
Sheet = 'Sheet1';
input = xlsread(filename,Sheet,'C2:H101');
target = xlsread(filename,Sheet,'I2:I101');
Q = input (1:100,1:6)';
TQ = target';

```

```

[pnNaive100,minpNaive100,maxpNaive10,tnNaive100,mi
ntNaive100,maxtNaive100] = premmx (Q,TQ);

[pnNaive100,meanpNaive100,stdpNaive100,tnNaive100,
meantNaive100,stdtNaive100] = prestd (Q,TQ);
netNaive100=newff(minmax(pnNaive100),[768 3
1],{'tansig' 'logsig' 'purelin'},'traingdm');
netNaive100.trainParam.epochs=200;
netNaive100.trainParam.goal=1e-4;
netNaive100.trainParam.lr=0.15;
netNaive100.trainParam.lr_inc=0.5;
netNaive100.trainParam.lr_dec=0.5;
netNaive100.trainParam.mc=0.25;
netNaive100.trainParam.show=20;

save netNaive100
save meanpNaive100
save stdpNaive100
save meantNaive100
save minpNaive100
save maxpNaive100

%
netNaive100=train(netNaive100,pnNaive100,tnNaive10
0);
BobotAwal_Input= netNaive100.IW{1,1};
set
(handles.lbBobot,'string',num2str(BobotAwal_Input)
);

QnNaive100=trastd(Q,meanpNaive100,stdpNaive100);
bnNaive100=sim(netNaive100,QnNaive100);

b=poststd(bnNaive100,meantNaive100,stdtNaive100);
end

k=[1:size(Q,2)]';
plot (k,TQ,'bo',k,b','r*');
disp(' No.Data Target Output Error');
Nil_error=(TQ'-b');
TAkurasi=0;
jumTQ=0;

```

```

jumTQ1=0;
jumTQ2=0;
for n = 1:DataUji
    if(Nil_error(n) < 0.50)
        if(Nil_error(n) > -0.50)
            Nil_akurasi(n)=100;
            TAkurasi=TAkurasi+Nil_akurasi(n);
        end
    else
        Nil_akurasi(n)=0;
    end

    nilTQ=TQ';
    if (nilTQ(n)< 1)
        jumTQ=jumTQ+1;
    end

    if (nilTQ(n)== 1)
        jumTQ1=jumTQ1+1;
    end

    if (nilTQ(n)== 2)
        jumTQ2=jumTQ2+1;
    end

end
E=[jumTQ jumTQ1 jumTQ2]
set (handles.txtNormal,'String',num2str(jumTQ));
set
(handles.txtTBParu,'String',num2str(jumTQ1+jumTQ2)
);
%set
(handles.txtEkstraParu,'String',num2str(jumTQ2));

H=[(1:size(Q,2))' TQ' b' (TQ'-b')]

RataAkurasi= (TAkurasi/DataUji);
set
(handles.txtAkurasi,'String',num2str(RataAkurasi))
;
title('Hasil Klasifikasi: Target (o) dan Output
(*)');
xlabel('Data ke-');ylabel('Target atau Output');
text(k+0.2*ones(length(k),1),TQ,int2str(k));

```

```
set(handles.btnPengujian,'enable','off');
helpdlg('Klasifikasi Naive Bayes Selesai... ');
```

3. Listing Program Matlab Support Vector Machine

```
function SSVM
disp(length(data))
data(:,1:end-1)=zscore(data(:,1:end-1));
[train,test] = holdout(data,80);

% Test set
Xtest=test(:,1:end-1);Ytest=test(:,end);

% Traing set
X=train(:,1:end-1);Y=train(:,end);
figure
hold on
scatter(X(Y==1,1),X(Y==1,2),'+g')
scatter(X(Y==-1,1),X(Y==-1,2),'r')
xlabel('{x_1}')
ylabel('{x_2}')
legend('Positive Class','Negative Class')
title('Data for classification')
hold off
fm_=[];
for c=[0.1,1,2,5,7,10]

    % alpha
    alpha = grad_ascent(X,Y,c);

    % Possible support vectors
    Xs=X(alpha>0,:); Ys=Y(alpha>0);

    % weights
    W=(alpha(alpha>0).*Ys)'*Xs;

    % bias
    bias=mean(Ys-(Xs*W'));

    % f~ (Predicted labels)
    f=sign(Xtest*W'+bias);

    % confusion matrix
    fm= confusion_mat(Ytest,f);
```



```

        fm_=[fm_ ; c fm];
end
[max_fm, indx]=max(fm_(:,2));
c_optimal=fm_(indx,1)
alpha = grad_ascent(X,Y,c_optimal);
Xs=X(alpha>0,:); Ys=Y(alpha>0);
Support_vectors=size(Xs,1)
W=(alpha(alpha>0).*Ys)'*Xs
bias=mean(Ys-(Xs*W'))

f=sign(Xtest*W'+bias);
[F_measure, Accuracy] = confusion_mat(Ytest,f)
ft=X*W'+bias;
zeta=max(0,1-Y.*ft);
Non_Zero_Zeta=sum(zeta~=0)
Support_vectors
figure
hold on

scatter(X(Y==1,1),X(Y==1,2),'b')
scatter(X(Y==-1,1),X(Y==-1,2),'r')
scatter(Xs(Ys==1,1),Xs(Ys==1,2),'.b')
scatter(Xs(Ys==-1,1),Xs(Ys==-1,2),'.r')

syms x
fn=vpa((-bias-W(1)*x)/W(2),4);
fplot(fn,'Linewidth',2);
fn1=vpa((1-bias-W(1)*x)/W(2),4);
fplot(fn1,'--');
fn2=vpa((-1-bias-W(1)*x)/W(2),4);
fplot(fn2,'--');

axis([-2 2 -2 2])
xlabel('X_1')
ylabel('X_2')
title('Hyperplane in 2D')
legend('+ve class','-ve class','support vector
(+)','support vector (-)','Decision
Boundry','Location','southeast')
hold off
Ker=X*X';
dual=(alpha)'*ones(size(X,1),1)-
0.5*(alpha.*Y)'*Ker*(alpha.*Y)

```

```

primal=c_optimal*(zeta'*ones(size(X,1),1))+
norm(W,2)^2
dualityGap= dual - primal
[x1
x2]=meshgrid(min(X(:,1)):0.005:max(X(:,1)),min(X(:,2)):0.005:max(X(:,2)));
Xn=[reshape(x1,1,size(x1,2)*size(x1,1))'
reshape(x2,1,size(x2,2)*size(x2,1))'];
yn=sign(Xn*W'+bias);
Yn=reshape(yn,size(x1));

```



DAFTAR RIWAYAT HIDUP
(CURRICULUM VITAE)



Nama : Doli Reza Apriansyah
Nim : 0701163074
Tempat, Tanggal Lahir : Rantau Prapat, 27 April 1998
Jenis Kelamin : Laki-laki
Alamat : Jln. HM. Said Perdamean Sigambal
Kel/Desa : Perdamean
Kecamatan : Rantau Selatan
Kabupaten : Labuhan Batu
Agama : Islam
Status Nikah : Belum Menikah
Nama OrangTua :
Ayah : Ir. Jumingan
Ibu : Legina Panggabean

PENDIDIKAN FORMAL

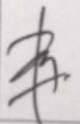
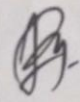
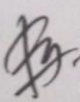
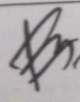
2004-2010 : SD Negeri 09 Rantau Selatan
2010-2013 : SMP Negeri 2 Rantau Selatan
2013-2016 : SMA Negeri 1 Rantau Selatan
2016- 2022 : Universitas Islam Negeri Sumatera Utara Medan

KARTU BIMBINGAN SKRIPSI

Semester Gasal/Genap Tahun Akademik

Nama : Doli Rca APParysya	Pembimbing I : Dr. Mhd Furqon, S.Si, M. Compsc.
NIM : 0701163029	Pembimbing II : Sriani, M. Com
Prog. Studi :	SK Pembimbing :
Judul Skripsi : Perbandingan Metode Naive Bayes dan Support Vector Machine dalam Klasifikasi Penyakit Tuberculosis	

P E R T	PEMBIMBING I			PEMBIMBING II		
	Tgl.	Materi Bimbingan	Tanda Tangan	Tgl.	Materi Bimbingan	Tanda Tangan
I	11 Februari 2021			17 Maret 2021	Bimbingan Bab 1-3 dan memperbaiki yang salah	
II	13 Maret 2021	Revisi bab 1, II, III		11 April 2021	Ace Simpro	
III	20 April 2021	Ace Simpro		11 Mei 2021	Revisi penulisan	
IV	19 Juni 2021			28 Juni 2021	Revisi Flowchart	
V	20 Juli 2021			12 Agustus 2021	Perbaikan pada Bab 3 dan Bimbingan Bab 4 dan 5	

VI	16 Maret 2021	Acc Skripsi		16 Maret 2021	Acc Skripsi	
VII						
VIII						
IX						
X			