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SURAT KETERANGAN HASIL CEK PLAGIASI
Nomor: 0243/WM.H16/SK.CP/2026

Dengan ini menerangkan bahwa:

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Judul Skripsi/Thesis	:	**IDENTIFIKASI MIKRO PROTEIN MENGGUNAKAN FUZZY LOGIC UNTUK MENDETEKSI KECENDERUNGAN RISIKO STUNTING MELALUI TELEGRAM BOT**

Skripsi/Thesis yang bersangkutan di atas telah melalui proses cek plagiasi menggunakan Turnitin dengan hasil kemiripan (*similarity*) sebesar **6 (Enam)%.**

Demikian surat keterangan ini dibuat agar dapat dipergunakan sebagaimana mestinya.

Kupang, 24 Februari 2026

Kepala UPT Perpustakaan,
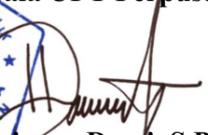
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LAMPIRAN

Lampiran Tabel Penelitian Terdahulu

No	Judul (Nama, Tahun)	Metode	Hasil	Objek
1	Sistem Monitoring dan Kontrol Daya PLTS Menggunakan IoT Berbasis *Fuzzy logic* (Freza Pratama, 2021)	*Fuzzy logic*, IoT	Prototype berhasil bekerja sebagai sistem kontrol daya dan monitoring PV panel berbasis IoT.	Pembangkit Listrik Tenaga Surya (PLTS)
2	Identifikasi Berita Hoax Menggunakan *Fuzzy logic* (Anita Sindar, 2021)	*Fuzzy logic*, Metode Mamdani	Tingkat kepastian berita hoax diidentifikasi melalui variabel seperti penyebaran, literasi, dan signifikansi.	Media sosial (konten berita hoax)
3	Sistem Pendeteksi Dini Kebakaran Hutan Berbasis Logika Fuzzy dengan Integrasi Telegram (Izaaz Irfanianingrum, 2023)	Logika Fuzzy, Telegram Bot	Alat mampu mendeteksi level bahaya kebakaran, memberikan notifikasi ke Telegram, dan indikator LED.	Hutan (deteksi kebakaran hutan)
4	Identifikasi Kondisi Minyak Isolasi Transformator Menggunakan *Fuzzy logic* di Gardu Induk Ploso (Dinar Wulan H, 2023)	*Fuzzy logic*, DGA	Simulasi menunjukkan kondisi minyak isolasi transformator membutuhkan perbaikan pada tahun tertentu.	Minyak isolasi pada transformator di gardu induk
5	Perancangan dan Pembuatan Sistem Keamanan Ruang Laundry Berbasis IoT Menggunakan Metode *Fuzzy logic* (Rayhan	*Fuzzy logic*, IoT	Sistem keamanan berhasil memonitor suhu dan gas secara real-time melalui website dan notifikasi	Ruang laundry

	Arjunastya, 2023)		Telegram.	
6	Penggunaan Metode *Fuzzy logic* untuk mendeteksi gizi buruk pada balita(Yonaldo Putra, 2023)	Metode *Fuzzy logic*	Aplikasi berbasis *Fuzzy logic* berhasil mendeteksi gizi buruk dengan akurasi yang baik.	Gizi buruk pada balita yang mempengaruhi pertumbuhan fisik dan kecerdasan akibat faktor ekonomi dan lingkungan
7	Deteksi Gizi Buruk Pada Balita Menggunakan Metode *Fuzzy logic* (Studi Kasus Puskesmas Kecamatan Semidang Alas Kabupaten Seluma) (Yuza Reswan, et al., 2024)	Metode *Fuzzy logic* dan Sistem Pendukung Keputusan (DSS)	Aplikasi berhasil dibangun untuk mendeteksi gizi buruk pada balita, memberikan hasil deteksi berdasarkan usia, berat badan, dan tinggi badan.	Gizi buruk pada balita yang dipengaruhi oleh kondisi ekonomi, perhatian orang tua, dan lingkungan yang tidak mendukung

Lampiran Tabel Rentan nilai mikroprotein

0–6 Bulan			
Variabel	Kekurangan	Normal	Kelebihan
Hemoglobin (Hb)	< 11.0	11.0–14.0	> 14.0
Albumin	< 3.0	3.0–4.5	> 4.5
Ferritin	< 30	30–100	> 100
Transferrin	< 150	150–250	> 250
Vitamin B12	< 20	20–40	> 40
Folat	< 200	200–600	> 600
Vitamin D	< 4	4–10	> 10
Kalsium	< 8.5	8.5–10.5	> 10.5
Magnesium	< 1.7	1.7–2.3	> 2.3
Zinc	< 65	65–100	> 100
7–12 Bulan			
Variabel	Kekurangan	Normal	Kelebihan

Hemoglobin (Hb)	< 11.0	11.0–14.5	> 14.5
Albumin	< 3.0	3.0–4.5	> 4.5
Ferritin	< 40	40–120	> 120
Transferrin	< 150	150–250	> 250
Vitamin B12	< 25	25–45	> 45
Folat	< 250	250–600	> 600
Vitamin D	< 4	4–10	> 10
Kalsium	< 8.5	8.5–10.5	> 10.5
Magnesium	< 1.7	1.7–2.3	> 2.3
Zinc	< 70	70–100	> 100

13–24 Bulan			
Variabel	Kekurangan	Normal	Kelebihan
Hemoglobin (Hb)	< 11.5	11.5–15.0	> 15.0
Albumin	< 3.5	3.5–4.5	> 4.5
Ferritin	< 50	50–150	> 150
Transferrin	< 200	200–300	> 300
Vitamin B12	< 30	30–50	> 50
Folat	< 300	300–700	> 700
Vitamin D	< 6	6–12	> 12
Kalsium	< 9.0	9.0–10.0	> 10.0
Magnesium	< 1.8	1.8–2.4	> 2.4
Zinc	< 80	80–120	> 120

25–36 Bulan			
Variabel	Kekurangan	Normal	Kelebihan
Hemoglobin (Hb)	< 12.0	12.0–16.0	> 16.0
Albumin	< 3.5	3.5–4.5	> 4.5
Ferritin	< 60	60–150	> 150
Transferrin	< 200	200–350	> 350
Vitamin B12	< 35	35–55	> 55
Folat	< 350	350–750	> 750
Vitamin D	< 6	6–12	> 12

Kalsium	< 9.5	9.5–10.5	> 10.5
Magnesium	< 1.9	1.9–2.5	> 2.5
Zinc	< 90	90–130	> 130

37–48 Bulan			
Variabel	Kekurangan	Normal	Kelebihan
Hemoglobin (Hb)	< 12.5	12.5–17.0	> 17.0
Albumin	< 3.5	3.5–5.0	> 5.0
Ferritin	< 70	70–150	> 150
Transferrin	< 250	250–400	> 400
Vitamin B12	< 40	40–60	> 60
Folat	< 400	400–800	> 800
Vitamin D	< 6	6–12	> 12
Kalsium	< 9.5	9.5–10.5	> 10.5
Magnesium	< 2.0	2.0–2.6	> 2.6
Zinc	< 100	100–150	> 150

49–60 Bulan			
Variabel	Kekurangan	Normal	Kelebihan
Hemoglobin (Hb)	< 13.0	13.0–18.0	> 18.0
Albumin	< 4.0	4.0–5.5	> 5.5
Ferritin	< 80	80–150	> 150
Transferrin	< 300	300–450	> 450
Vitamin B12	< 45	45–65	> 65
Folat	< 450	450–900	> 900
Vitamin D	< 6	6–15	> 15
Kalsium	< 10	10–11	> 11
Magnesium	< 2.1	2.1–2.7	> 2.7
Zinc	< 110	110–160	> 160

Lampiran Tabel Fungsi Keanggotaan Fuzzy Mikroprotein.

Kelompok Umur: 0–6 Bulan			
Variabel	Kekurangan (A,B,C,D)	Normal (A,B,C,D)	Kelebihan (A,B,C,D)
Hemoglobin (Hb)	(0, 0, 11, 11)	(11, 11, 14, 14)	(14, 14, 20, 20)
Albumin	(0, 0, 3, 3)	(3, 3, 4.5, 4.5)	(4.5, 4.5, 6, 6)
Ferritin	(0, 0, 30, 30)	(30, 30, 100, 100)	(100, 100, 200, 200)
Transferrin	(0, 0, 150, 150)	(150, 150, 250, 250)	(250, 250, 400, 400)
Vitamin B12	(0, 0, 20, 20)	(20, 20, 40, 40)	(40, 40, 60, 60)
Folat	(0, 0, 200, 200)	(200, 200, 600, 600)	(600, 600, 800, 800)
Vitamin D	(0, 0, 4, 4)	(4, 4, 10, 10)	(10, 10, 20, 20)
Kalsium	(0, 0, 8.5, 8.5)	(8.5, 8.5, 10.5, 10.5)	(10.5, 10.5, 12, 12)
Magnesium	(0, 0, 1.7, 1.7)	(1.7, 1.7, 2.3, 2.3)	(2.3, 2.3, 3, 3)
Zinc	(0, 0, 65, 65)	(65, 65, 100, 100)	(100, 100, 150, 150)

Kelompok Umur: 7–12 Bulan			
Variabel	Kekurangan (A,B,C,D)	Normal (A,B,C,D)	Kelebihan (A,B,C,D)
Hemoglobin (Hb)	(0, 0, 11, 11)	(11, 11, 14.5, 14.5)	(14.5, 14.5, 20, 20)
Albumin	(0, 0, 3, 3)	(3, 3, 4.5, 4.5)	(4.5, 4.5, 6, 6)
Ferritin	(0, 0, 40, 40)	(40, 40, 120, 120)	(120, 120, 200, 200)
Transferrin	(0, 0, 150, 150)	(150, 150, 250, 250)	(250, 250, 400, 400)
Vitamin B12	(0, 0, 25, 25)	(25, 25, 45, 45)	(45, 45, 65, 65)
Folat	(0, 0, 250, 250)	(250, 250, 600, 600)	(600, 600, 800, 800)
Vitamin D	(0, 0, 4, 4)	(4, 4, 10, 10)	(10, 10, 20, 20)
Kalsium	(0, 0, 8.5, 8.5)	(8.5, 8.5, 10.5, 10.5)	(10.5, 10.5, 12, 12)
Magnesium	(0, 0, 1.7, 1.7)	(1.7, 1.7, 2.3, 2.3)	(2.3, 2.3, 3, 3)
Zinc	(0, 0, 70, 70)	(70, 70, 100, 100)	(100, 100, 150, 150)

Kelompok Umur: 13–24 Bulan			
Variabel	Kekurangan (A,B,C,D)	Normal (A,B,C,D)	Kelebihan (A,B,C,D)
Hemoglobin (Hb)	(0, 0, 11.5, 11.5)	(11.5, 11.5, 15, 15)	(15, 15, 20, 20)
Albumin	(0, 0, 3.5, 3.5)	(3.5, 3.5, 4.5, 4.5)	(4.5, 4.5, 6, 6)
Ferritin	(0, 0, 50, 50)	(50, 50, 150, 150)	(150, 150, 200, 200)
Transferrin	(0, 0, 200, 200)	(200, 200, 300, 300)	(300, 300, 400, 400)

Vitamin B12	(0, 0, 30, 30)	(30, 30, 50, 50)	(50, 50, 70, 70)
Folat	(0, 0, 300, 300)	(300, 300, 700, 700)	(700, 700, 900, 900)
Vitamin D	(0, 0, 6, 6)	(6, 6, 12, 12)	(12, 12, 20, 20)
Kalsium	(0, 0, 9, 9)	(9, 9, 10, 10)	(10, 10, 12, 12)
Magnesium	(0, 0, 1.8, 1.8)	(1.8, 1.8, 2.4, 2.4)	(2.4, 2.4, 3, 3)
Zinc	(0, 0, 80, 80)	(80, 80, 120, 120)	(120, 120, 160, 160)

Kelompok Umur: 25–36 Bulan			
Variabel	Kekurangan (A,B,C,D)	Normal (A,B,C,D)	Kelebihan (A,B,C,D)
Hemoglobin (Hb)	(0, 0, 12, 12)	(12, 12, 16, 16)	(16, 16, 20, 20)
Albumin	(0, 0, 3.5, 3.5)	(3.5, 3.5, 4.5, 4.5)	(4.5, 4.5, 6, 6)
Ferritin	(0, 0, 60, 60)	(60, 60, 150, 150)	(150, 150, 200, 200)
Transferrin	(0, 0, 200, 200)	(200, 200, 350, 350)	(350, 350, 450, 450)
Vitamin B12	(0, 0, 35, 35)	(35, 35, 55, 55)	(55, 55, 70, 70)
Folat	(0, 0, 350, 350)	(350, 350, 750, 750)	(750, 750, 900, 900)
Vitamin D	(0, 0, 6, 6)	(6, 6, 12, 12)	(12, 12, 20, 20)
Kalsium	(0, 0, 9.5, 9.5)	(9.5, 9.5, 10.5, 10.5)	(10.5, 10.5, 12, 12)
Magnesium	(0, 0, 1.9, 1.9)	(1.9, 1.9, 2.5, 2.5)	(2.5, 2.5, 3, 3)
Zinc	(0, 0, 90, 90)	(90, 90, 130, 130)	(130, 130, 160, 160)

Kelompok Umur: 37–48 Bulan			
Variabel	Kekurangan (A,B,C,D)	Normal (A,B,C,D)	Kelebihan (A,B,C,D)
Hemoglobin (Hb)	(0, 0, 12.5, 12.5)	(12.5, 12.5, 17, 17)	(17, 17, 20, 20)
Albumin	(0, 0, 3.5, 3.5)	(3.5, 3.5, 5, 5)	(5, 5, 6, 6)
Ferritin	(0, 0, 70, 70)	(70, 70, 150, 150)	(150, 150, 200, 200)
Transferrin	(0, 0, 250, 250)	(250, 250, 400, 400)	(400, 400, 500, 500)
Vitamin B12	(0, 0, 40, 40)	(40, 40, 60, 60)	(60, 60, 80, 80)
Folat	(0, 0, 400, 400)	(400, 400, 800, 800)	(800, 800, 1000, 1000)
Vitamin D	(0, 0, 6, 6)	(6, 6, 12, 12)	(12, 12, 20, 20)
Kalsium	(0, 0, 9.5, 9.5)	(9.5, 9.5, 10.5, 10.5)	(10.5, 10.5, 12, 12)
Magnesium	(0, 0, 2, 2)	(2, 2, 2.6, 2.6)	(2.6, 2.6, 3, 3)
Zinc	(0, 0, 100, 100)	(100, 100, 150, 150)	(150, 150, 200, 200)

Kelompok Umur: 49–60 Bulan			
Variabel	Kekurangan (A,B,C,D)	Normal (A,B,C,D)	Kelebihan (A,B,C,D)
Hemoglobin (Hb)	(0, 0, 13, 13)	(13, 13, 18, 18)	(18, 18, 20, 20)
Albumin	(0, 0, 4, 4)	(4, 4, 5.5, 5.5)	(5.5, 5.5, 6, 6)
Ferritin	(0, 0, 80, 80)	(80, 80, 150, 150)	(150, 150, 200, 200)
Transferrin	(0, 0, 300, 300)	(300, 300, 450, 450)	(450, 450, 500, 500)
Vitamin B12	(0, 0, 45, 45)	(45, 45, 65, 65)	(65, 65, 80, 80)
Folat	(0, 0, 450, 450)	(450, 450, 900, 900)	(900, 900, 1100, 1100)
Vitamin D	(0, 0, 6, 6)	(6, 6, 15, 15)	(15, 15, 20, 20)
Kalsium	(0, 0, 10, 10)	(10, 10, 11, 11)	(11, 11, 12, 12)
Magnesium	(0, 0, 2.1, 2.1)	(2.1, 2.1, 2.7, 2.7)	(2.7, 2.7, 3, 3)
Zinc	(0, 0, 110, 110)	(110, 110, 160, 160)	(160, 160, 200, 200)

Lampiran Tabel Standar (BB/U) Anak Laki-Laki Umur 0-60 Bulan

Umur (bulan)	Berat Badan (Kg)						
	-3 SD	-2 SD	-1 SD	Median	+1 SD	+2 SD	+3 SD
0	2.1	2.5	2.9	3.3	3.9	4.4	5.0
1	2.9	3.4	3.9	4.5	5.1	5.8	6.6
2	3.8	4.3	4.9	5.6	6.3	7.1	8.0
3	4.4	5.0	5.7	6.4	7.2	8.0	9.0
4	4.9	5.6	6.2	7.0	7.8	8.7	9.7
5	5.3	6.0	6.7	7.5	8.4	9.3	10.4
6	5.7	6.4	7.1	7.9	8.8	9.8	10.9
7	5.9	6.7	7.4	8.3	9.2	10.3	11.4
8	6.2	6.9	7.7	8.6	9.6	10.7	11.9
9	6.4	7.1	8.0	8.9	9.9	11.0	12.3
10	6.6	7.4	8.2	9.2	10.2	11.4	12.7
11	6.8	7.6	8.4	9.4	10.5	11.7	13.0
12	6.9	7.7	8.6	9.6	10.8	12.0	13.3
13	7.1	7.9	8.8	9.9	11.0	12.3	13.7
14	7.2	8.1	9.0	10.1	11.3	12.6	14.0
15	7.4	8.3	9.2	10.3	11.5	12.8	14.3
16	7.5	8.4	9.4	10.5	11.7	13.1	14.6

17	7.7	8.6	9.6	10.7	12.0	13.4	14.9
18	7.8	8.8	9.8	10.9	12.2	13.7	15.3
19	8.0	8.9	10.0	11.1	12.5	13.9	15.6
20	8.1	9.1	10.1	11.3	12.7	14.2	15.9
21	8.2	9.2	10.3	11.5	12.9	14.5	16.2
22	8.4	9.4	10.5	11.8	13.2	14.7	16.5
23	8.5	9.5	10.7	12.0	13.4	15.0	16.8
24	8.6	9.7	10.8	12.2	13.6	15.3	17.1
25	8.8	9.8	11.0	12.4	13.9	15.5	17.5
26	8.9	10.0	11.2	12.5	14.1	15.8	17.8
27	9.0	10.1	11.3	12.7	14.3	16.1	18.1
28	9.1	10.2	11.5	12.9	14.5	16.3	18.4
29	9.2	10.4	11.7	13.1	14.8	16.6	18.7
30	9.4	10.5	11.8	13.3	15.0	16.9	19.0
31	9.5	10.7	12.0	13.5	15.2	17.1	19.3
32	9.6	10.8	12.1	13.7	15.4	17.4	19.6
33	9.7	10.9	12.3	13.8	15.6	17.6	19.9
34	9.8	11.0	12.4	14.0	15.8	17.8	20.2
35	9.9	11.2	12.6	14.2	16.0	18.1	20.4
36	10.0	11.3	12.7	14.3	16.2	18.3	20.7
37	10.1	11.4	12.9	14.5	16.4	18.6	21.0
38	10.2	11.5	13.0	14.7	16.6	18.8	21.3
39	10.3	11.6	13.1	14.8	16.8	19.0	21.6
40	10.4	11.8	13.3	15.0	17.0	19.3	21.9
41	10.5	11.9	13.4	15.2	17.2	19.5	22.1
42	10.6	12.0	13.6	15.3	17.4	19.7	22.4
43	10.7	12.1	13.7	15.5	17.6	20.0	22.7
44	10.8	12.2	13.8	15.7	17.8	20.2	23.0
45	10.9	12.4	14.0	15.8	18.0	20.5	23.3
46	11.0	12.5	14.1	16.0	18.2	20.7	23.6
47	11.1	12.6	14.3	16.2	18.4	20.9	23.9
48	11.2	12.7	14.4	16.3	18.6	21.2	24.2
49	11.3	12.8	14.5	16.5	18.8	21.4	24.5
50	11.4	12.9	14.7	16.7	19.0	21.7	24.8
51	11.5	13.1	14.8	16.8	19.2	21.9	25.1
52	11.6	13.2	15.0	17.0	19.4	22.2	25.4

53	11.7	13.3	15.1	17.2	19.6	22.4	25.7
54	11.8	13.4	15.2	17.3	19.8	22.7	26.0
55	11.9	13.5	15.4	17.5	20.0	22.9	26.3
56	12.0	13.6	15.5	17.7	20.2	23.2	26.6
57	12.1	13.7	15.6	17.8	20.4	23.4	26.9
58	12.2	13.8	15.8	18.0	20.6	23.7	27.2
59	12.3	14.0	15.9	18.2	20.8	23.9	27.6
60	12.4	14.1	16.0	18.3	21.0	24.2	27.9

Lampiran Tabel Standar (BB/U) Anak Perempuan Umur 0-60 Bulan

Umur (bulan)	Berat Badan (Kg)						
	-3 SD	-2 SD	-1 SD	Median	+1 SD	+2 SD	+3 SD
0	2.0	2.4	2.8	3.2	3.7	4.2	4.8
1	2.7	3.2	3.6	4.2	4.8	5.5	6.2
2	3.4	3.9	4.5	5.1	5.8	6.6	7.5
3	4.0	4.5	5.2	5.8	6.6	7.5	8.5
4	4.4	5.0	5.7	6.4	7.3	8.2	9.3
5	4.8	5.4	6.1	6.9	7.8	8.8	10.0
6	5.1	5.7	6.5	7.3	8.2	9.3	10.6
7	5.3	6.0	6.8	7.6	8.6	9.8	11.1
8	5.6	6.3	7.0	7.9	9.0	10.2	11.6
9	5.8	6.5	7.3	8.2	9.3	10.5	12.0
10	5.9	6.7	7.5	8.5	9.6	10.9	12.4
11	6.1	6.9	7.7	8.7	9.9	11.2	12.8
12	6.3	7.0	7.9	8.9	10.1	11.5	13.1
13	6.4	7.2	8.1	9.2	10.4	11.8	13.5
14	6.6	7.4	8.3	9.4	10.6	12.1	13.8
15	6.7	7.6	8.5	9.6	10.9	12.4	14.1
16	6.9	7.7	8.7	9.8	11.1	12.6	14.5
17	7.0	7.9	8.9	10.0	11.4	12.9	14.8
18	7.2	8.1	9.1	10.2	11.6	13.2	15.1
19	7.3	8.2	9.2	10.4	11.8	13.5	15.4
20	7.5	8.4	9.4	10.6	12.1	13.7	15.7
21	7.6	8.6	9.6	10.9	12.3	14.0	16.0
22	7.8	8.7	9.8	11.1	12.5	14.3	16.4

23	7.9	8.9	10.0	11.3	12.8	14.6	16.7
24	8.1	9.0	10.2	11.5	13.0	14.8	17.0
25	8.2	9.2	10.3	11.7	13.3	15.1	17.3
26	8.4	9.4	10.5	11.9	13.5	15.4	17.7
27	8.5	9.5	10.7	12.1	13.7	15.7	18.0
28	8.6	9.7	10.9	12.3	14.0	16.0	18.3
29	8.8	9.8	11.1	12.5	14.2	16.2	18.7
30	8.9	10.0	11.2	12.7	14.4	16.5	19.0
31	9.0	10.1	11.4	12.9	14.7	16.8	19.3
32	9.1	10.3	11.6	13.1	14.9	17.1	19.6
33	9.3	10.4	11.7	13.3	15.1	17.3	20.0
34	9.4	10.5	11.9	13.5	15.4	17.6	20.3
35	9.5	10.7	12.0	13.7	15.6	17.9	20.6
36	9.6	10.8	12.2	13.9	15.8	18.1	20.9
37	9.7	10.9	12.4	14.0	16.0	18.4	21.3
38	9.8	11.1	12.5	14.2	16.3	18.7	21.6
39	9.9	11.2	12.7	14.4	16.5	19.0	22.0
40	10.1	11.3	12.8	14.6	16.7	19.2	22.3
41	10.2	11.5	13.0	14.8	16.9	19.5	22.7
42	10.3	11.6	13.1	15.0	17.2	19.8	23.0
43	10.4	11.7	13.3	15.2	17.4	20.1	23.4
44	10.5	11.8	13.4	15.3	17.6	20.4	23.7
45	10.6	12.0	13.6	15.5	17.8	20.7	24.1
46	10.7	12.1	13.7	15.7	18.1	20.9	24.5
47	10.8	12.2	13.9	15.9	18.3	21.2	24.8
48	10.9	12.3	14.0	16.1	18.5	21.5	25.2
49	11.0	12.4	14.2	16.3	18.8	21.8	25.5
50	11.1	12.6	14.3	16.4	19.0	22.1	25.9
51	11.2	12.7	14.5	16.6	19.2	22.4	26.3
52	11.3	12.8	14.6	16.8	19.4	22.6	26.6
53	11.4	12.9	14.8	17.0	19.7	22.9	27.0
54	11.5	13.0	14.9	17.2	19.9	23.2	27.4
55	11.6	13.2	15.1	17.3	20.1	23.5	27.7
56	11.7	13.3	15.2	17.5	20.3	23.8	28.1
57	11.8	13.4	15.3	17.7	20.6	24.1	28.5
58	11.9	13.5	15.5	17.9	20.8	24.4	28.8

| 59 | 12.0 | 13.6 | 15.6 | 18.0 | 21.0 | 24.6 | 29.2 |
| 60 | 12.1 | 13.7 | 15.8 | 18.2 | 21.2 | 24.9 | 29.5 |

Lampiran Tabel Standar (PB/U) Anak Laki-Laki Umur 0-60 Bulan

Umur (bulan)	Panjang Badan (cm)						
	-3 SD	-2 SD	-1 SD	Median	+1 SD	+2 SD	+3 SD
0	44.2	46.1	48.0	49.9	51.8	53.7	55.6
1	48.9	50.8	52.8	54.7	56.7	58.6	60.6
2	52.4	54.4	56.4	58.4	60.4	62.4	64.4
3	55.3	57.3	59.4	61.4	63.5	65.5	67.6
4	57.6	59.7	61.8	63.9	66.0	68.0	70.1
5	59.6	61.7	63.8	65.9	68.0	70.1	72.2
6	61.2	63.3	65.5	67.6	69.8	71.9	74.0
7	62.7	64.8	67.0	69.2	71.3	73.5	75.7
8	64.0	66.2	68.4	70.6	72.8	75.0	77.2
9	65.2	67.5	69.7	72.0	74.2	76.5	78.7
10	66.4	68.7	71.0	73.3	75.6	77.9	80.1
11	67.6	69.9	72.2	74.5	76.9	79.2	81.5
12	68.6	71.0	73.4	75.7	78.1	80.5	82.9
13	69.6	72.1	74.5	76.9	79.3	81.8	84.2
14	70.6	73.1	75.6	78.0	80.5	83.0	85.5
15	71.6	74.1	76.6	79.1	81.7	84.2	86.7
16	72.5	75.0	77.6	80.2	82.8	85.4	88.0
17	73.3	76.0	78.6	81.2	83.9	86.5	89.2
18	74.2	76.9	79.6	82.3	85.0	87.7	90.4
19	75.0	77.7	80.5	83.2	86.0	88.8	91.5
20	75.8	78.6	81.4	84.2	87.0	89.8	92.6
21	76.5	79.4	82.3	85.1	88.0	90.9	93.8
22	77.2	80.2	83.1	86.0	89.0	91.9	94.9
23	78.0	81.0	83.9	86.9	89.9	92.9	95.9
24 *	78.7	81.7	84.8	87.8	90.9	93.9	97.0
25	78.6	81.7	84.9	88.0	91.1	94.2	97.3
26	79.3	82.5	85.6	88.8	92.0	95.2	98.3
27	79.9	83.1	86.4	89.6	92.9	96.1	99.3
28	80.5	83.8	87.1	90.4	93.7	97.0	100.3

29	81.1	84.5	87.8	91.2	94.5	97.9	101.2
30	81.7	85.1	88.5	91.9	95.3	98.7	102.1
31	82.3	85.7	89.2	92.7	96.1	99.6	103.0
32	82.8	86.4	89.9	93.4	96.9	100.4	103.9
33	83.4	86.9	90.5	94.1	97.6	101.2	104.8
34	83.9	87.5	91.1	94.8	98.4	102.0	105.6
35	84.4	88.1	91.8	95.4	99.1	102.7	106.4
36	85.0	88.7	92.4	96.1	99.8	103.5	107.2
37	85.5	89.2	93.0	96.7	100.5	104.2	108.0
38	86.0	89.8	93.6	97.4	101.2	105.0	108.8
39	86.5	90.3	94.2	98.0	101.8	105.7	109.5
40	87.0	90.9	94.7	98.6	102.5	106.4	110.3
41	87.5	91.4	95.3	99.2	103.2	107.1	111.0
42	88.0	91.9	95.9	99.9	103.8	107.8	111.7
43	88.4	92.4	96.4	100.4	104.5	108.5	112.5
44	88.9	93.0	97.0	101.0	105.1	109.1	113.2
45	89.4	93.5	97.5	101.6	105.7	109.8	113.9
46	89.8	94.0	98.1	102.2	106.3	110.4	114.6
47	90.3	94.4	98.6	102.8	106.9	111.1	115.2
48	90.7	94.9	99.1	103.3	107.5	111.7	115.9
49	91.2	95.4	99.7	103.9	108.1	112.4	116.6
50	91.6	95.9	100.2	104.4	108.7	113.0	117.3
51	92.1	96.4	100.7	105.0	109.3	113.6	117.9
52	92.5	96.9	101.2	105.6	109.9	114.2	118.6
53	93.0	97.4	101.7	106.1	110.5	114.9	119.2
54	93.4	97.8	102.3	106.7	111.1	115.5	119.9
55	93.9	98.3	102.8	107.2	111.7	116.1	120.6
56	94.3	98.8	103.3	107.8	112.3	116.7	121.2
57	94.7	99.3	103.8	108.3	112.8	117.4	121.9
58	95.2	99.7	104.3	108.9	113.4	118.0	122.6
59	95.6	100.2	104.8	109.4	114.0	118.6	123.2
60	96.1	100.7	105.3	110.0	114.6	119.2	123.9

Lampiran Tabel Standar (PB/U) Anak Perempuan Umur 0-60 Bulan

Umur (bulan)	Panjang Badan (cm)						
	-3 SD	-2 SD	-1 SD	Median	+1 SD	+2 SD	+3 SD
0	43.6	45.4	47.3	49.1	51.0	52.9	54.7
1	47.8	49.8	51.7	53.7	55.6	57.6	59.5
2	51.0	53.0	55.0	57.1	59.1	61.1	63.2
3	53.5	55.6	57.7	59.8	61.9	64.0	66.1
4	55.6	57.8	59.9	62.1	64.3	66.4	68.6
5	57.4	59.6	61.8	64.0	66.2	68.5	70.7
6	58.9	61.2	63.5	65.7	68.0	70.3	72.5
7	60.3	62.7	65.0	67.3	69.6	71.9	74.2
8	61.7	64.0	66.4	68.7	71.1	73.5	75.8
9	62.9	65.3	67.7	70.1	72.6	75.0	77.4
10	64.1	66.5	69.0	71.5	73.9	76.4	78.9
11	65.2	67.7	70.3	72.8	75.3	77.8	80.3
12	66.3	68.9	71.4	74.0	76.6	79.2	81.7
13	67.3	70.0	72.6	75.2	77.8	80.5	83.1
14	68.3	71.0	73.7	76.4	79.1	81.7	84.4
15	69.3	72.0	74.8	77.5	80.2	83.0	85.7
16	70.2	73.0	75.8	78.6	81.4	84.2	87.0
17	71.1	74.0	76.8	79.7	82.5	85.4	88.2
18	72.0	74.9	77.8	80.7	83.6	86.5	89.4
19	72.8	75.8	78.8	81.7	84.7	87.6	90.6
20	73.7	76.7	79.7	82.7	85.7	88.7	91.7
21	74.5	77.5	80.6	83.7	86.7	89.8	92.9
22	75.2	78.4	81.5	84.6	87.7	90.8	94.0
23	76.0	79.2	82.3	85.5	88.7	91.9	95.0
24 *	76.7	80.0	83.2	86.4	89.6	92.9	96.1
25	76.8	80.0	83.3	86.6	89.9	93.1	96.4
26	77.5	80.8	84.1	87.4	90.8	94.1	97.4
27	78.1	81.5	84.9	88.3	91.7	95.0	98.4
28	78.8	82.2	85.7	89.1	92.5	96.0	99.4
29	79.5	82.9	86.4	89.9	93.4	96.9	100.3
30	80.1	83.6	87.1	90.7	94.2	97.7	101.3
31	80.7	84.3	87.9	91.4	95.0	98.6	102.2
32	81.3	84.9	88.6	92.2	95.8	99.4	103.1

33	81.9	85.6	89.3	92.9	96.6	100.3	103.9
34	82.5	86.2	89.9	93.6	97.4	101.1	104.8
35	83.1	86.8	90.6	94.4	98.1	101.9	105.6
36	83.6	87.4	91.2	95.1	98.9	102.7	106.5
37	84.2	88.0	91.9	95.7	99.6	103.4	107.3
38	84.7	88.6	92.5	96.4	100.3	104.2	108.1
39	85.3	89.2	93.1	97.1	101.0	105.0	108.9
40	85.8	89.8	93.8	97.7	101.7	105.7	109.7
41	86.3	90.4	94.4	98.4	102.4	106.4	110.5
42	86.8	90.9	95.0	99.0	103.1	107.2	111.2
43	87.4	91.5	95.6	99.7	103.8	107.9	112.0
44	87.9	92.0	96.2	100.3	104.5	108.6	112.7
45	88.4	92.5	96.7	100.9	105.1	109.3	113.5
46	88.9	93.1	97.3	101.5	105.8	110.0	114.2
47	89.3	93.6	97.9	102.1	106.4	110.7	114.9
48	89.8	94.1	98.4	102.7	107.0	111.3	115.7
49	90.3	94.6	99.0	103.3	107.7	112.0	116.4
50	90.7	95.1	99.5	103.9	108.3	112.7	117.1
51	91.2	95.6	100.1	104.5	108.9	113.3	117.7
52	91.7	96.1	100.6	105.0	109.5	114.0	118.4
53	92.1	96.6	101.1	105.6	110.1	114.6	119.1
54	92.6	97.1	101.6	106.2	110.7	115.2	119.8
55	93.0	97.6	102.2	106.7	111.3	115.9	120.4
56	93.4	98.1	102.7	107.3	111.9	116.5	121.1
57	93.9	98.5	103.2	107.8	112.5	117.1	121.8
58	94.3	99.0	103.7	108.4	113.0	117.7	122.4
59	94.7	99.5	104.2	108.9	113.6	118.3	123.1
60	95.2	99.9	104.7	109.4	114.2	118.9	123.7

Lampiran Tabel Rule Base

1	IF Hb = Rendah AND Albumin = Rendah AND VitaminD = Rendah AND Kalsium = Rendah AND Zinc = Rendah THEN Risiko = Tinggi.
2	IF Hb = Rendah AND Albumin = Rendah AND TB/U = SangatPendek AND BB/U = SangatKurus THEN Risiko = Tinggi.
3	IF Hb = Rendah AND Zinc = Rendah AND VitaminD = Rendah AND

	Kalsium = Rendah THEN Risiko = Tinggi.
4	IF Albumin = Rendah AND VitaminD = Rendah AND Kalsium = Rendah AND Zinc = Rendah THEN Risiko = Tinggi.
5	IF Hb = Rendah AND Albumin = Rendah AND (Ferritin = Rendah OR Transferrin = Rendah) AND BB/U = Kurus THEN Risiko = Tinggi.
6	IF TB/U = SangatPendek AND (VitaminB12 = Rendah AND Folat = Rendah) AND (Hb = Rendah OR Albumin = Rendah) THEN Risiko = Tinggi.
7	IF TB/U = SangatPendek AND BB/U = Kurus AND (Vit_D = Rendah OR Kalsium = Rendah) THEN Risiko = Tinggi.
8	IF BB/U = SangatKurus AND (Ferritin = Rendah AND Transferrin = Rendah AND Mg = Rendah) THEN Risiko = Tinggi.
9	IF Hb = Rendah AND TB/U = SangatPendek AND Zinc = Rendah THEN Risiko = Tinggi.
10	IF Albumin = Rendah AND TB/U = SangatPendek AND VitaminD = Rendah THEN Risiko = Tinggi.
11	IF Hb = Rendah AND Kalsium = Rendah AND Zinc = Rendah AND BB/U = Kurus THEN Risiko = Tinggi.
12	IF (Vit_B12 = Rendah AND Folat = Rendah) AND TB/U = Pendek AND (Hb = Rendah OR Albumin = Rendah) THEN Risiko = Tinggi.
13	IF Ferritin = Rendah AND Transferrin = Rendah AND Hb = Rendah AND BB/U = SangatKurus THEN Risiko = Tinggi.
14	IF Zinc = Rendah AND VitaminD = Rendah AND (Hb = Rendah OR Albumin = Rendah) AND TB/U = Pendek THEN Risiko = Tinggi.
15	IF Kalsium = Rendah AND VitaminD = Rendah AND TB/U = SangatPendek AND BB/U = Kurus THEN Risiko = Tinggi.
16	IF Hb = Rendah AND Albumin = Rendah AND Zinc = Rendah AND TB/U = Pendek THEN Risiko = Tinggi.
17	IF Hb = Rendah AND Ferritin = Rendah AND Transferrin = Rendah AND BB/U = SangatKurus THEN Risiko = Tinggi.
18	IF (Mg = Rendah AND Ferritin = Rendah) AND BB/U = SangatKurus AND Hb = Rendah THEN Risiko = Tinggi.
19	IF TB/U = SangatPendek AND (Zinc = Rendah OR VitaminD = Rendah) AND (Ferritin = Rendah OR Transferrin = Rendah) THEN Risiko = Tinggi.
20	IF Semua faktor utama (Hb, Albumin, VitaminD, Kalsium, Zinc) minimal 3 dari 5 = Rendah AND TB/U = Pendek AND BB/U = Kurus THEN Risiko = Tinggi.
21	IF VitaminB12 = Rendah AND Folat = Rendah AND TB/U = Pendek THEN Risiko = Tinggi.
22	IF VitaminB12 = Rendah AND Folat = Rendah AND TB/U = Normal AND (Hb = Rendah OR Albumin = Rendah) THEN Risiko = Sedang.
23	IF VitaminB12 = Rendah AND TB/U = Pendek AND (Zinc = Rendah OR Kalsium = Rendah) THEN Risiko = Tinggi.
24	IF Folat = Rendah AND TB/U = Pendek AND (Hb = Rendah OR Albumin = Rendah) THEN Risiko = Tinggi.

25	IF VitaminB12 = Rendah AND Folat = Normal AND TB/U = Pendek THEN Risiko = Sedang.
26	IF VitaminB12 = Normal AND Folat = Normal AND TB/U = Normal THEN Risiko = Rendah.
27	IF VitaminB12 = Rendah AND Folat = Rendah AND BB/U = Kurus THEN Risiko = Tinggi.
28	IF VitaminB12 = Rendah AND (Hb = Rendah OR Albumin = Rendah) AND TB/U = Pendek THEN Risiko = Tinggi.
29	IF VitaminB12 = Rendah AND Folat = Rendah AND (Ferritin = Rendah OR Transferrin = Rendah) THEN Risiko = Tinggi.
30	IF TB/U = Pendek AND (Vit_B12 = Rendah OR Folat = Rendah) AND BB/U = Normal THEN Risiko = Sedang.
31	IF Ferritin = Rendah AND Transferrin = Rendah AND Mg = Rendah AND BB/U = Kurus THEN Risiko = Tinggi.
32	IF Ferritin = Rendah AND Transferrin = Rendah AND BB/U = SangatKurus THEN Risiko = Tinggi.
33	IF Mg = Rendah AND BB/U = Kurus AND (Hb = Rendah OR Albumin = Rendah) THEN Risiko = Tinggi.
34	IF Mg = Rendah AND (Ferritin = Rendah OR Transferrin = Rendah) AND BB/U = Kurus THEN Risiko = Tinggi.
35	IF Ferritin = Normal AND Transferrin = Normal AND Mg = Normal AND BB/U = Normal THEN Risiko = Rendah.
36	IF Ferritin = Rendah AND (Hb = Rendah OR Albumin = Rendah) AND BB/U = Kurus THEN Risiko = Tinggi.
37	IF Transferrin = Rendah AND BB/U = Kurus AND (Zinc = Rendah OR Mg = Rendah) THEN Risiko = Tinggi.
38	IF Ferritin = Rendah AND TB/U = Pendek AND BB/U = Kurus THEN Risiko = Tinggi.
39	IF Mg = Rendah AND Ferritin = Rendah AND Transferrin = Normal AND BB/U = Kurus THEN Risiko = Sedang.
40	IF BB/U = Normal AND (Ferritin = Rendah OR Transferrin = Rendah) AND Hb = Normal AND Albumin = Normal THEN Risiko = Sedang.
41	IF Hb = Rendah AND Albumin = Rendah AND Zinc = Rendah THEN Risiko = Tinggi.
42	IF Hb = Rendah AND VitaminD = Rendah AND Kalsium = Rendah THEN Risiko = Tinggi.
43	IF Albumin = Rendah AND Zinc = Rendah AND Ferritin = Rendah THEN Risiko = Tinggi.
44	IF Hb = Rendah AND Albumin = Rendah AND VitaminB12 = Rendah THEN Risiko = Tinggi.
45	IF Zinc = Rendah AND Kalsium = Rendah AND VitaminD = Rendah THEN Risiko = Tinggi.
46	IF Hb = Normal AND Albumin = Normal AND Semua nutrien lain = Normal AND TB/U = Normal AND BB/U = Normal THEN Risiko = Rendah.

47	IF Hb = Rendah AND (Zinc = Rendah OR VitaminD = Rendah) AND BB/U = Kurus THEN Risiko = Tinggi.
48	IF Albumin = Rendah AND Ferritin = Rendah AND BB/U = Kurus THEN Risiko = Tinggi.
49	IF Kalsium = Rendah AND VitaminD = Rendah AND BB/U = Kurus THEN Risiko = Tinggi.
50	IF Zinc = Rendah AND Mg = Rendah AND BB/U = Kurus THEN Risiko = Tinggi.
51	IF (Hb = Rendah OR Albumin = Rendah) AND TB/U = Pendek AND BB/U = Kurus THEN Risiko = Tinggi.
52	IF (Hb = Rendah OR Albumin = Rendah) AND semua mikronutrien lainnya = Normal AND TB/U = Normal THEN Risiko = Sedang.
53	IF Hb = Rendah AND semua lainnya = Normal THEN Risiko = Sedang.
54	IF Albumin = Rendah AND semua lainnya = Normal THEN Risiko = Sedang.
55	IF VitaminD = Rendah AND semua lainnya = Normal THEN Risiko = Sedang.
56	IF Kalsium = Rendah AND semua lainnya = Normal THEN Risiko = Sedang.
57	IF Zinc = Rendah AND semua lainnya = Normal THEN Risiko = Sedang.
58	IF Ferritin = Rendah AND semua lainnya = Normal THEN Risiko = Sedang.
59	IF Transferrin = Rendah AND semua lainnya = Normal THEN Risiko = Sedang.
60	IF Mg = Rendah AND semua lainnya = Normal THEN Risiko = Sedang.
61	IF VitaminB12 = Rendah AND semua lainnya = Normal THEN Risiko = Sedang.
62	IF Folat = Rendah AND semua lainnya = Normal THEN Risiko = Sedang.
63	IF TB/U = Pendek AND semua nutrien = Normal THEN Risiko = Sedang.
64	IF BB/U = Kurus AND semua nutrien = Normal THEN Risiko = Sedang.
65	IF TB/U = SangatPendek THEN Risiko = Tinggi.
66	IF BB/U = SangatKurus THEN Risiko = Tinggi.
67	IF TB/U = Pendek AND BB/U = SangatKurus THEN Risiko = Tinggi.
68	IF TB/U = Normal AND BB/U = Normal AND minimal 10 dari 12 variabel ≠ Rendah THEN Risiko = Rendah.
69	IF TB/U = Normal AND BB/U = Normal AND semua nutrien = Normal THEN Risiko = Rendah.
70	IF TB/U = Pendek AND (Hb = Rendah OR Albumin = Rendah OR Zinc = Rendah) THEN Risiko = Tinggi.
71	IF Hb = Normal AND Albumin = Normal AND VitaminD = Normal AND Kalsium = Normal AND Zinc = Normal AND TB/U = Normal AND BB/U = Normal THEN Risiko = Rendah.
72	IF Minimal 9 dari 12 variabel = Normal AND tidak ada TB/U = Pendek atau BB/U = Kurus THEN Risiko = Rendah.