

## DAFTAR ISI

ABSTRAK .....	i
<i>ABSTRACT</i> .....	ii
KATA PENGANTAR.....	iii
DAFTAR ISI .....	v
DAFTAR GAMBAR .....	viii
DAFTAR TABEL.....	x
<b>BAB I PENDAHULUAN</b> .....	<b>1</b>
1.1 Latar Belakang .....	1
1.2 Rumusan Masalah.....	2
1.3 Tujuan.....	2
1.4 Batasan Masalah.....	3
1.5 Manfaat .....	4
1.6 Kerangka Pemikiran.....	5
1.7 Sistematika Penulisan.....	6
<b>BAB II KAJIAN LITERATUR</b> .....	<b>8</b>
2.1 Tinjauan Pustaka .....	8
2.2 Landasan Teori .....	12
2.2.1 <i>Deep Learning</i> .....	12
2.2.2 <i>Object Detection</i> .....	14
2.2.3 <i>Convolutional Neural Network (CNN)</i> .....	14
2.2.4 <i>You Only Look Once (YOLO)</i> .....	15
2.2.5 <i>Precision</i> .....	17
2.2.6 <i>Recall</i> .....	18
2.2.7 <i>Mean Average Precision</i> .....	18
2.2.8 <i>F1-Score</i> .....	18

2.2.9	<i>Confusion Matrix</i> .....	19
2.2.10	Python .....	19
2.2.11	Kotlin.....	19
2.2.12	Definisi Makanan.....	20
2.2.13	Pedoman Gizi Seimbang.....	20
2.2.14	Kalori.....	21
2.2.15	<i>Basal Metabolic Rate (BMR)</i> .....	21
2.2.16	<i>Total Daily Energy Expenditure (TDEE)</i> .....	22
2.2.17	Densitas .....	22
2.2.18	Pengujian <i>Black Box</i> .....	22
BAB III METODOLOGI.....		24
3.1	<i>Business Understanding</i> .....	24
3.2	<i>Data Understanding</i> .....	25
3.3	<i>Data Preparation</i> .....	25
3.3.1	<i>Data Collecting</i> .....	25
3.3.2	<i>Data Cleaning</i> .....	25
3.3.3	<i>Data Annotation</i> .....	26
3.3.4	<i>Data Augmentation</i> .....	26
3.3.5	<i>Data Formatting</i> .....	27
3.3.6	<i>Split Dataset (Pembagian Data)</i> .....	27
3.4	<i>Modeling</i> .....	27
3.5	<i>Evaluation</i> .....	28
3.6	<i>Deployment</i> .....	29
BAB IV HASIL DAN PEMBAHASAN.....		31
4.1	Hasil <i>Business Understanding</i> .....	31
4.2	Hasil <i>Data Understanding</i> .....	31
4.3	Hasil <i>Data Preparation</i> .....	32
4.3.1	<i>Data Collecting</i> .....	32
4.3.2	<i>Data Cleaning</i> .....	33

4.3.3	<i>Data Annotation</i> .....	33
4.3.4	<i>Data Augmentation</i> .....	35
4.3.5	<i>Data Formatting</i> .....	35
4.3.6	<i>Split Dataset</i> .....	36
4.4	<i>Hasil Modeling</i> .....	37
4.4.1	Hasil Skenario 1 .....	37
4.4.2	Hasil Skenario 2 .....	38
4.4.3	Hasil Skenario 3 .....	39
4.4.4	Hasil Skenario 4 .....	40
4.5	<i>Hasil Evaluation</i> .....	40
4.5.1	Perbandingan Performa Setiap Skenario.....	40
4.5.2	Analisis Model .....	41
4.6	<i>Hasil Deployment</i> .....	49
4.6.1	<i>Database Aplikasi</i> .....	49
4.6.2	Perancangan Aplikasi .....	50
4.6.3	Pengujian Aplikasi .....	62
BAB V SIMPULAN DAN SARAN .....		66
5.1	Simpulan .....	66
5.2	Saran.....	67
DAFTAR PUSTAKA .....		68
RIWAYAT HIDUP .....		xi