

## DAFTAR ISI

ABSTRAK .....	i
<i>ABSTRACT</i> .....	ii
LEMBAR PENGESAHAN .....	iii
LEMBAR PENGESAHAN ORISINALITAS .....	iv
KATA PENGANTAR .....	v
DAFTAR ISI .....	vi
DAFTAR GAMBAR .....	ix
DAFTAR TABEL .....	xi
DAFTAR LAMPIRAN .....	xii
DAFTAR SIMBOL .....	xiii
DAFTAR ISTILAH .....	xiv
BAB I PENDAHULUAN .....	1
I.1 Latar Belakang .....	1
I.2 Rumusan Masalah .....	5
I.3 Tujuan Penelitian .....	5
I.4 Manfaat Penelitian .....	6
I.5 Batasan Penelitian .....	6
I.6 Sistematika Penelitian .....	7
BAB II TINJAUAN PUSTAKA .....	9
II.1 Kesehatan .....	9
II.2 Diabetes Melitus .....	9
II.3 Data Rekam Medis .....	10
II.4 <i>Knowledge Discovery in Database</i> .....	11
II.5 <i>Data Selection</i> .....	12
II.6 <i>Data Preprocessing</i> .....	13

II.7 <i>Data Transformation</i> .....	14
II.8 <i>Data Mining</i> .....	15
II.9 <i>Machine Learning</i> .....	15
II.10 <i>Gradient Boosting Machine</i> .....	17
II.11 <i>K-Fold Cross Validation</i> .....	21
II.12 <i>Grid Search</i> .....	22
II.13 <i>Confusion Matrix</i> .....	22
II.14 <i>Receiver Operating Characteristic (ROC) Curve</i> .....	24
II.15 <i>Penelitian Terdahulu</i> .....	26
<b>BAB III METODOLOGI PENELITIAN</b> .....	<b>30</b>
III.1 <i>Pengembangan Model Konseptual</i> .....	30
III.2 <i>Metode Penelitian</i> .....	31
III.3 <i>Sistematika Penelitian</i> .....	32
III.3.1 <i>Tahap Identifikasi</i> .....	33
III.3.2 <i>Tahap Implementasi</i> .....	33
III.3.3 <i>Tahap Akhir</i> .....	34
<b>BAB IV ANALISIS DAN PERANCANGAN</b> .....	<b>36</b>
IV.1 <i>Analisis Ruang Lingkup Studi Kasus</i> .....	36
IV.2 <i>Tahapan Analisis</i> .....	36
IV.3 <i>Data Collecting</i> .....	37
IV.4 <i>Data Selection</i> .....	40
IV.5 <i>Exploratory Data Analysis</i> .....	41
IV.6 <i>Data Preprocessing</i> .....	45
IV.6.1 <i>Remove Duplicate</i> .....	45
IV.6.2 <i>Data Handling Null</i> .....	46
IV.6.3 <i>Data Handling Outlier</i> .....	47

IV.7 <i>Data Transformation</i> .....	49
IV.8 <i>Data Modeling</i> .....	50
IV.8.1 <i>Splitting Data</i> .....	50
IV.8.2 <i>Grid Search</i> .....	51
IV.8.3 <i>K-Fold Cross Validation</i> .....	53
IV.8.4 Algoritma Klasifikasi <i>Gradient Boosting Machine</i> .....	54
IV.9 <i>Data Evaluation</i> .....	59
IV.9.1 <i>Confusion Matrix</i> .....	59
IV.9.2 Receiver Operating Characteristic (ROC) Curve.....	60
BAB V IMPLEMENTASI DAN PENGUJIAN.....	62
V.1 Hasil Klasifikasi <i>Model Gradient Boosting Machine</i> .....	62
V.2 K-Fold Cross Validation .....	63
V.3 Evaluasi .....	64
V.3.1 <i>Confusion Matrix</i> .....	64
V.3.2 <i>Receiver Operating Characteristic (ROC) Curve</i> .....	74
V.4 Validasi Model .....	77
V.5 Visualisasi Hasil .....	80
BAB VI KESIMPULAN DAN SARAN .....	83
VI.1 Kesimpulan.....	83
VI.2 Saran.....	84
DAFTAR PUSTAKA .....	85
LAMPIRAN.....	90