

## DAFTAR ISI

ABSTRAK .....	iii
<i>ABSTRACT</i> .....	iv
LEMBAR PENGESAHAN .....	v
LEMBAR PERNYATAAN ORISINALITAS .....	vi
KATA PENGANTAR .....	vii
DAFTAR ISI.....	ix
DAFTAR GAMBAR .....	xiv
DAFTAR TABEL.....	xviii
DAFTAR ISTILAH .....	xx
BAB I PENDAHULUAN.....	1
I.1 Latar Belakang .....	1
I.2 Perumusan Masalah.....	2
I.3 Tujuan Penelitian.....	2
I.4 Batasan Penelitian .....	3
I.5 Manfaat Penelitian.....	3
BAB II Tinjauan Pustaka .....	5
II.1 Merdeka Belajar Kampus Merdeka (MBKM) .....	5
II.2 <i>Software Development Life Cycle (SDLC)</i> .....	6
II.2.1 <i>Iterative Incremental</i> .....	6
II.2.2 <i>Agile</i> .....	8
II.2.3 <i>Waterfall</i> .....	8
II.3 Teknologi.....	9
II.3.1 HTML .....	9
II.3.2 CSS.....	10
II.3.3 <i>JavaScript</i> .....	10

II.3.4	<i>React JS</i> .....	11
II.3.5	<i>Tailwind CSS</i> .....	12
II.3.6	<i>Spring Boot</i> .....	12
II.3.7	<i>Database</i> .....	13
II.4	<i>Unified Modelling Diagram (UML)</i> .....	14
II.4.1	<i>Use Case Diagram</i> .....	15
II.4.2	<i>Activity Diagram</i> .....	16
II.4.3	<i>Class Diagram</i> .....	17
II.4.4	<i>Sequence Diagram</i> .....	19
II.4.5	<i>Deployment Diagram</i> .....	20
II.5	<i>Application Programming Interface (API)</i> .....	20
II.6	Pengujian Aplikasi .....	21
II.6.1	<i>User Acceptance Testing</i> .....	22
II.6.2	<i>Load Testing</i> .....	22
II.7	Penelitian Terdahulu.....	22
II.8	Alasan Pemilihan Teori, Kerangka Kerja, atau Mekanisme .....	25
BAB III	METODOLOGI PENELITIAN .....	29
III.1	Kerangka Berpikir.....	29
III.2	Sistematika Penyelesaian Masalah .....	30
III.3	Pengumpulan Data.....	31
III.4	Pengembangan Produk .....	31
III.5	Metode Evaluasi .....	32
III.6	Alasan Pemilihan Metode .....	32
BAB IV	ANALISIS DAN PERANCANGAN .....	34
IV.1	Analisis Proses Bisnis .....	34
IV.1.1	Analisis Proses Bisnis Eksisting .....	34

IV.1.2	Analisis GAP.....	37
IV.1.3	Analisis Proses Bisnis Targeting.....	39
IV.2	Analisis Kebutuhan Fungsional .....	43
IV.3	Analisis Kebutuhan Non Fungsional .....	47
IV.4	Analisa Aktor.....	48
IV.5	<i>Use Case Diagram</i> .....	49
IV.6	<i>Use Case Scenario</i> .....	51
IV.6.1	<i>Use Case Scenario Authentication</i> .....	51
IV.6.2	Use Case Scenario Setting .....	54
IV.6.3	<i>Use Case Scenario Pengajuan</i> .....	56
IV.6.4	<i>Use Case Scenario Laporan</i> .....	64
IV.6.5	<i>Use Case Scenario Presentasi &amp; Input Nilai</i> .....	70
IV.6.6	<i>Use Case Scenario Profil</i> .....	74
IV.7	<i>Activity Diagram</i> .....	76
IV.7.1	<i>Activity Diagram Authentication</i> .....	76
IV.7.2	<i>Activity Diagram Setting</i> .....	79
IV.7.3	<i>Activity Diagram Pendaftaran</i> .....	82
IV.7.4	<i>Activity Diagram Laporan</i> .....	90
IV.7.5	<i>Activity Diagram Presentasi &amp; Input Nilai</i> .....	96
IV.7.6	<i>Activity Diagram Profil</i> .....	101
IV.8	<i>Sequence Diagram</i> .....	103
IV.8.1	<i>Sequence Diagram Authentication</i> .....	103
IV.8.2	<i>Sequence Diagram Setting</i> .....	105
IV.8.3	<i>Sequence Diagram Pendaftaran</i> .....	107
IV.8.4	<i>Sequence Diagram Laporan</i> .....	113
IV.8.5	<i>Sequence Diagram Presentasi &amp; Input Nilai</i> .....	117

IV.8.6	<i>Sequence Diagram Profil</i> .....	119
IV.9	<i>Class Diagram</i> .....	121
IV.10	<i>Entity Relationship Diagram (ERD)</i> .....	121
IV.11	<i>Deployment Diagram</i> .....	122
IV.12	Perangkat Pengembangan .....	123
BAB V IMPLEMENTASI DAN PENGUJIAN.....		125
V.1	<i>Initial Planning</i> .....	125
V.2	<i>Iterative Incremental Fase Pertama</i> .....	125
V.2.1	Tahap Planning.....	125
V.2.2	Tahap <i>Design</i> .....	127
V.2.3	Tahap <i>Development</i> .....	127
V.2.4	Tahap Testing.....	134
V.2.5	Tahap Evaluasi .....	138
V.3	<i>Iterative Incremental Fase Kedua</i> .....	138
V.3.1	Tahap Planning.....	138
V.3.2	Tahap <i>Design</i> .....	140
V.3.3	Tahap <i>Development</i> .....	140
V.3.4	Tahap Testing.....	147
V.3.5	Tahap Evaluasi .....	150
V.4	<i>Iterative Incremental Ketiga</i> .....	150
V.4.1	Tahap Planning.....	150
V.4.2	Tahap <i>Design</i> .....	151
V.4.3	Tahap <i>Development</i> .....	152
V.4.4	Tahap Testing.....	154
V.4.5	Tahap Evaluasi .....	160
V.5	<i>Deployment</i> .....	160

BAB VI	KESIMPULAN DAN SARAN .....	161
VI.1	Kesimpulan .....	161
VI.2	Saran .....	162
DAFTAR PUSTAKA .....	163	
DAFTAR LAMPIRAN.....	166	