

## DAFTAR ISI

Abstrak .....	i
Abstract .....	ii
LEMBAR PENGESAHAN.....	iii
LEMBAR PERNYATAAN ORISINALITAS.....	iv
KATA PENGANTAR.....	v
Daftar Isi.....	vi
Daftar Gambar.....	x
Daftar Tabel.....	xii
Daftar Istilah.....	xiii
Bab I   Pendahuluan .....	1
I.1   Latar Belakang.....	1
I.2   Rumusan Masalah .....	4
I.3   Tujuan Penelitian.....	4
I.4   Manfaat Penelitian.....	5
I.5   Batasan Masalah .....	5
I.6   Sistematika Penulisan.....	6
Bab II   Tinjauan Pustaka .....	7
II.1   E-Learning .....	7
II.1.1   Konsep <i>E-Learning</i> .....	8
II.1.2   Kelebihan <i>E-Learning</i> .....	9
II.1.3   Karakteristik <i>E-Learning</i> .....	9
II.2   NoSQL Database .....	10
II.2.1   Perbandingan NoSQL Dengan SQL Database.....	10
II.3   Perangkat Lunak Yang Digunakan.....	12

II.3.1	Firebase .....	12
II.3.2	Android Studio .....	14
II.3.3	Midtrans .....	15
II.4	Metode Pengembangan Sistem.....	15
II.4.1	Agile Software <i>Development</i> .....	16
II.4.2	<i>Iterative Incremental</i> .....	17
II.4.3	<i>User Acceptance Test</i> (UAT) .....	18
II.4.4	<i>User Acceptance Test</i> Menggunakan <i>Pendekatan Black Box</i> .....	19
II.5	<i>State Of The Art</i> .....	20
Bab III	Metodologi Penelitian .....	22
III.1	Pengembangan Model Konseptual .....	22
III.2	Alasan Pemilihan Metode.....	23
III.3	Sistematika Penelitian .....	25
III.3.1	Tahap Identifikasi.....	26
III.3.2	Planning.....	27
III.3.3	<i>Design</i> .....	27
III.3.4	Tahap <i>Development</i> .....	27
III.3.5	Testing.....	27
III.3.6	Tahap <i>Feedback</i> .....	28
III.4	Pengumpulan Data.....	28
III.5	Metode Evaluasi .....	29
III.6	Jadwal Kegiatan.....	29
Bab IV	Analisis dan perancangan .....	32
IV.1	Analisis GAP.....	32
IV.2	Analisis Kebutuhan Bisnis .....	37

IV.2.1	Analisis Bisnis Model Aplikasi IHYA.....	39
IV.2.2	<i>Value Propositions</i> .....	40
IV.2.3	<i>Customer Segment</i> .....	40
IV.2.4	<i>Customer Relationship</i> .....	40
IV.2.5	Channels.....	40
IV.2.6	Key Activities.....	41
IV.2.7	Key Partners .....	42
IV.2.8	Key Resources.....	42
IV.3	Analisis Kuesioner.....	42
IV.4	Analisis Wawancara .....	44
IV.4.1	Kesimpulan Analisis Wawancara.....	48
IV.4.2	Profiling Partisipan Interview .....	48
IV.5	Analisis Kompetitor.....	50
IV.6	Perancangan Sistem.....	51
IV.6.1	Usecase Diagram.....	51
IV.6.2	Entity Relationship Diagram.....	63
IV.6.3	Activity Diagram.....	64
IV.6.4	Sequence Diagram.....	79
IV.6.5	Arsitektur Aplikasi .....	91
Bab V	IMPLEMENTASI DAN PENGUJIAN.....	93
V.1	Fase Research .....	93
V.2	<i>Iterative Incremental</i> Fase Pertama.....	93
V.2.1	Fase Planning .....	93
V.2.2	Fase <i>Design</i> .....	94
V.2.3	Fase <i>Development</i> .....	94

V.2.4	Fase Testing.....	94
V.2.5	Fase <i>Feedback</i> Fase Pertama.....	110
V.3	<i>Iterative Incremental</i> Fase Kedua.....	111
V.3.1	Fase Planning .....	111
V.3.2	Fase <i>Design</i> .....	111
V.3.3	Fase <i>Development</i> .....	112
V.3.4	Fase Testing.....	112
V.3.5	Fase <i>Feedback</i> Fase Kedua .....	117
Bab VI	KESIMPULAN DAN SARAN.....	118
VI.1	Kesimpulan.....	118
VI.2	Saran .....	118
	Daftar Pustaka .....	120
	Lampiran .....	122
	Lampiran A : Bukti <i>Unit</i> Testing .....	122
	Lampiran B: Bukti <i>User Acceptance</i> Test .....	135