DAFTAR ISI

ABSTRAK ii

ABSTRACT iii

LEMBAR PERNYATAAN ORSINALITAS v

KATA PENGANTAR vi

Daftar Isi vii

Daftar Gambar xi

Daftar Tabel xiv

Daftar Lampiran xvi

Daftar Istilah xvii

BAB I Pendahuluan 1

I.1 Latar Belakang 1

I.2 Perumusan Masalah 3

I.3 Tujuan Penelitian 4

I.4 Batasan Penelitian 4

I.5 Manfaat Penelitian 4

BAB II Tinjauan Pustaka 6

II.1 *User Interface* (UI) 6

II.2 *User Experience & Usability* 6

II.3 Evaluasi *Usability* 8

II.3.1 Data Kuantitatif 8

II.3.1.1 *System Usability Scale* (SUS) 8

II.3.2 Data Kualitatif 10

II.3.2.1 Wawancara Semi-terstruktur 10

II.3.2.2 Qualitative Usability Testing 11

II.4 Metode Pendekatan dalam Perancangan Desain UI 12

II.4.1 *User Centered Design* (UCD) 12
II.4.2 *Human Centered Design* (HCD) 14
II.4.3 *Design Thinking* 15
II.5 Perbandingan Metode 17
II.6 *Software Development Life Cycle* (SDLC) 18
II.6.1 Incremental Model 18
II.7 Konsep – Konsep Design Thinking 20
II.7.1 *Business Process Model and Notation* (BPMN) 20
II.7.2 *Information Architechture* 21
II.7.3 *Empathy Map* 21
II.7.4 *User Persona* 22
II.7.5 *How Might We (HMW)* 23
II.7.6 *Task Scenario* 23
II.7.7 *Ideation* 23
II.7.8 *Impact & Effort Matrix* 24
II.7.9 *Wireframe* 24
II.7.10 *Prototype* 24
II.8 Konsep - Konsep Pengembangan Implementasi Rancangan 25
II.8.1 *Unified Modelling Language* (UML) 25
II.8.1.1 *Use Case Diagram* 25
II.8.1.2 *Activity Diagram* 27
II.8.1.3 *Class Diagram* 28
II.8.2 PHP & *Framework* Laravel 29
II.8.2 Black Box Testing 30
II.8.3 Laravel Dusk 31
II.9 Penelitian Terdahulu 31

BAB III Metodologi Penelitian 33
III.1 Pengembangan Model Konseptual 33
III.2 Sistematika Penyelesaian Masalah 34
III.3 Pengumpulan Data 36
III.4 Pengembangan Artefak 36
III.5 Metode Evaluasi 39
BAB IV ANALISIS DAN PERANCANGAN 40
IV.1 Emphatize 40
IV.1.1 Proses Bisnis Aplikasi SOFI (*Existing*) 40
IV.1.2 Identifikasi Pengguna 42
IV.1.3 Information Architecture 43
IV.1.4 Pemilihan Sampel Responden 43
IV.1.5 Hasil Wawancara 44
IV.1.6 Analisis Hasil Kuisioner SUS (*Legacy System)* 46
IV.2 Define 47
IV.2.1 Emphaty Map 48
IV.2.2 User Persona 50
IV.2.3 How Might We (HMW) 53
IV.3 Ideate 54
IV.3.1 *Ideation* 54
IV.3.2 *Impact & Effort Matrix* 55
IV.3.3 Proses Bisnis Aplikasi SOFI (*Targeting)* 59
IV.3.4 *Use case Diagram* 62
IV.3.5 *Activity diagram* 73
IV.3.6 Class Diagram 85
IV.3.7 *Task Scenario* 86

IV.4 Prototype 88
IV.4.1.1 Wireframe 88
IV.4.1.2 High Fidelity Protoype 97
BAB V IMPLEMENTASI DAN PENGUJIAN 103
V.1 Hasil *Usability Testing* Iterasi Pertama 103
V.1.1 Hasil Analisis Kuisioner SUS (*Redesigned System)* Iterasi Pertama 105
V.2 Hasil *Usability Testing* Iterasi Kedua 106
V.2.1 Hasil Analisis Kuisioner SUS (*Redesigned System)* Iterasi Kedua 107
V.3 Hasil Implementasi Antarmuka 109
V.4 Hasil *Black Box Testing* 114
BAB VI KESIMPULAN DAN SARAN 128
VI.1 Kesimpulan 128
VI.2 Saran 128
DAFTAR PUSTAKA 130