

DAFTAR ISI

Abstrak	ii
<i>Abstract</i>	iii
Lembar Pernyataan Orisinalitas	v
Kata Pengantar	vi
Daftar Isi.....	vii
Daftar Gambar.....	xiii
Daftar Tabel.....	xv
Daftar Lampiran	xvii
BAB I Pendahuluan	1
I.1 Latar Belakang	1
I.2 Perumusan Masalah	2
I.3 Tujuan Penelitian.....	3
I.4 Batasan Penelitian	3
I.5 Manfaat Penelitian	4
I.6 Sistematika Penulisan	4
BAB II Landasan Teori	6
II.1 Konsep Transportasi Publik	6
II.1.1 Pengertian Kereta Api	6
II.1.2 Pengertian <i>Passenger Information Display System</i>	6
II.2 Perangkat Pengembangan Website.....	7
II.2.1 Pengertian Yii.....	7
II.2.2 Pengertian <i>Website</i>	7
II.2.3 <i>Visual Studio Code</i>	8
II.3 UML.....	8
II.3.1 <i>Use Case Diagram</i>	9
II.3.2 <i>Activity Diagram</i>	9

II.3.3	<i>Class Diagram</i>	10
II.3.4	<i>Sequence Diagram</i>	10
II.4	Metode Pengembangan	11
II.4.1	<i>Prototyping</i>	11
II.5	Perbandingan Metode Perangkat Lunak	12
II.6	Metode Pengujian.....	13
II.6.1	<i>System Usability Scale (SUS)</i>	13
II.6.2	<i>Blackbox Testing</i>	15
II.7	<i>Business Process Modeling Notation</i>	16
II.8	Penelitian Terdahulu.....	17
BAB III	Metode Penyelesaian Masalah	20
III.1	Model Konseptual	20
III.2	Sistematika Penyelesaian Masalah.....	21
III.2.1	Tahap <i>Communication</i>	21
III.2.2	Tahap <i>Quick Plan</i>	22
III.2.3	Tahap <i>Quick Design</i>	22
III.2.4	Tahap <i>Construction of Prototype</i>	23
III.2.5	Tahap <i>Deployment Delivery and Feedback</i>	24
III.3	Metode Evaluasi.....	24
BAB IV	Penyelesaian Permasalahan.....	25
IV.1	Tahap <i>Communication</i>	25
IV.1.1	Analisis Proses Bisnis Eksisting	25
IV.2	Tahap <i>Quick Plan</i>	26
IV.2.1	Analisis GAP	26
IV.2.2	Analisis Proses Bisnis Targeting	27
IV.2.3	Analisis Kebutuhan Pengguna	28
IV.2.4	Analisis Kebutuhan	29

IV.2.5	Analisis Kebutuhan Fungsional Sistem	29
IV.3	Tahap <i>Quick Design</i>	30
IV.3.1	<i>Use Case Diagram</i>	30
IV.3.2	<i>Use Case Scenario</i>	32
IV.2.2.1	<i>Login</i>	32
IV.2.2.2	<i>Add New Train</i>	32
IV.2.2.3	<i>Update Train Information</i>	33
IV.2.2.4	<i>View Train Information</i>	34
IV.2.2.5	<i>Delete Train Information</i>	34
IV.2.2.6	<i>Add New Route</i>	35
IV.2.2.7	<i>View Route</i>	35
IV.2.2.8	<i>Update Route</i>	36
IV.2.2.9	<i>Delete Route</i>	36
IV.2.2.10	<i>Add Route List</i>	37
IV.2.2.11	<i>Update Route List</i>	38
IV.2.2.12	<i>Delete Route List</i>	38
IV.2.2.13	<i>Add New Station</i>	39
IV.2.2.14	<i>Update Station</i>	39
IV.2.2.15	<i>Delete Station</i>	40
IV.2.2.16	<i>View Station</i>	41
IV.3.3	<i>Activity Diagram</i>	41
IV.2.3.1	<i>Login</i>	41
IV.2.3.2	<i>Add New Train</i>	42
IV.2.3.3	<i>Update Train Information</i>	43
IV.2.3.4	<i>View Train Information</i>	44
IV.2.3.5	<i>Delete Train Information</i>	45
IV.2.3.6	<i>Add New Route</i>	46

IV.2.3.7	<i>View Route</i>	47
IV.2.3.8	<i>Update Route</i>	48
IV.2.3.9	<i>Delete Route</i>	49
IV.2.3.10	<i>Add Route List</i>	50
IV.2.3.11	<i>Update Route List</i>	51
IV.2.3.12	<i>Delete Route List</i>	52
IV.2.3.13	<i>Add New Station</i>	53
IV.2.3.14	<i>View Station</i>	54
IV.2.3.15	<i>Update Station</i>	55
IV.2.3.16	<i>Delete Station</i>	56
IV.3.4	<i>Entity Relationship Diagram (ERD)</i>	57
IV.3.5	<i>Class Diagram</i>	58
IV.3.6	<i>Sequence Diagram</i>	59
IV.2.5.1	<i>Login</i>	59
IV.2.5.2	<i>Add New Train</i>	60
IV.2.5.3	<i>Update Train Information</i>	60
IV.2.5.4	<i>View Train Information</i>	61
IV.2.5.5	<i>Delete Train Information</i>	62
IV.2.5.6	<i>Add New Route</i>	63
IV.2.5.7	<i>View Route</i>	64
IV.2.5.8	<i>Update Route</i>	65
IV.2.5.9	<i>Delete Route</i>	66
IV.2.5.10	<i>Add Route List</i>	67
IV.2.5.11	<i>Update Route List</i>	68
IV.2.5.12	<i>Delete Route List</i>	69
IV.2.5.13	<i>Add New Station</i>	70
IV.2.5.14	<i>View Station</i>	71

IV.2.5.15	<i>Update Station</i>	72
IV.2.5.16	<i>Delete Station</i>	73
IV.4	<i>Tahap Construction of Prototype</i>	74
IV.4.1	<i>Construction of PIDS</i>	74
IV.4.2	<i>Construction of Railway Management System</i>	77
IV.4.2.1	<i>Fitur Login</i>	78
IV.4.2.2	<i>Halaman Manajemen Kereta</i>	78
IV.4.2.3	<i>Halaman Tambah Kereta</i>	79
IV.4.2.4	<i>Halaman Lihat Kereta</i>	79
IV.4.2.5	<i>Halaman Perbarui Kereta</i>	79
IV.4.2.6	<i>Halaman Hapus Kereta</i>	80
IV.4.2.7	<i>Halaman Manajemen Rute</i>	80
IV.4.2.8	<i>Halaman Tambah Rute</i>	81
IV.4.2.9	<i>Halaman Lihat Rute</i>	81
IV.4.2.10	<i>Halaman Perbarui Rute</i>	82
IV.4.2.11	<i>Halaman Hapus Rute</i>	82
IV.4.2.12	<i>Halaman Konfigurasi Urutan Rute</i>	83
IV.4.2.13	<i>Halaman Tambah Urutan Rute</i>	83
IV.4.2.14	<i>Halaman Perbarui Urutan Rute</i>	84
IV.4.2.15	<i>Halaman Hapus Urutan Rute</i>	84
IV.4.2.16	<i>Halaman Manajemen Stasiun</i>	85
IV.4.2.17	<i>Halaman Tambah Stasiun</i>	85
IV.4.2.18	<i>Halaman Perbarui Stasiun</i>	86
IV.4.2.19	<i>Halaman Lihat Stasiun</i>	86
IV.4.2.20	<i>Halaman Hapus Stasiun</i>	87
BAB V	<i>Validasi, Analisis hasil, dan Implikasi</i>	88
V.1	<i>Tahap Deployment Delivery dan Feedback</i>	88

V.1.1	Pengujian PIDS dengan Simulasi	88
V.1.2	Pengujian PIDS dengan GPS	89
V.1.3	PIDS <i>System Usability Scale</i>	91
V.1.4	Pengujian <i>Railway Management System</i>	93
V.1.4.1	<i>Blackbox Testing</i>	93
V.1.4.2	<i>System Usability Scale</i>	96
V.2	Evaluasi Hasil Pengujian.....	98
V.3	Dampak Hasil Tugas Akhir	99
BAB VI	Kesimpulan dan Saran.....	100
VI.1	Kesimpulan	100
VI.2	Saran.....	100
Daftar Pustaka		xiii
Daftar Lampiran		xvi