

DAFTAR ISI

	Halaman
HALAMAN JUDUL	
PERNYATAAN ORISINILITAS PENELITIAN	ii
HALAMAN PERSETUJUAN	iii
HALAMAN PENGESAHAN	iv
HALAMAN PERSEMBAHAN	v
MOTTO	vi
RIWAYAT HIDUP	vii
PRAKATA	viii
ABSTRAK	x
DAFTAR ISI	xii
DAFTAR GAMBAR	xvi
DAFTAR TABEL	xviii
BAB I PENDAHULUAN	
1.1 Latar Belakang Masalah	1
1.2 Rumusan Masalah	2
1.3 Batasan Masalah.....	2
1.4 Tujuan Penelitian.....	3
1.5 Manfaat Penelitian.....	3
1.6 Sistematika Penulisan.....	4
BAB II TINJAUAN PUSTAKA	
2.1 Aplikasi	5
2.2 <i>Pet Shop</i>	5
2.3 <i>Selection Sort</i>	5
2.4 <i>Flowchart Selection Sort</i>	7

2.5	<i>Insertion Sort</i>	8
2.6	<i>Flowchart Insertion Sort</i>	9
2.7	<i>Aplikasi Mobile</i>	10
2.8	<i>Android</i>	11
2.9	<i>Firestore Realtime Database</i>	11
2.10	<i>Google Maps API</i>	11
2.11	<i>Metode Perangkat Lunak yang Digunakan</i>	12
2.12	<i>Unified Modeling Language (UML)</i>	12
2.12.1	<i>Use Case Diagram</i>	13
2.12.2	<i>Activity Diagram</i>	14
2.12.3	<i>Class Diagram</i>	15
2.13	<i>Flowchart</i>	16
2.14	<i>Pengujian Black Box</i>	18
2.15	<i>Penelitian Terkait</i>	18

BAB III METODOLOGI PENELITIAN

3.1	<i>Kerangka Alur Penelitian</i>	23
3.2	<i>Cara Kerja Selection Sort</i>	24
3.3	<i>Cara Kerja Insertion Sort</i>	24
3.4	<i>Memori Yang Terpakai (Memory Usage)</i>	25
3.5	<i>Metode Pengumpulan Data</i>	26
3.5.1	<i>Wawancara</i>	26
3.5.2	<i>Studi Pustaka</i>	26
3.5.3	<i>Observasi</i>	26
3.5.4	<i>Dokumentasi</i>	26

3.6	Perancangan Secara Cepat.....	27
3.6.1	Analisis Kebutuhan Perangkat Lunak.....	27
3.6.2	Analisis Kebutuhan Perangkat Keras.....	27
3.7	Pemodelan Perancangan Secara Cepat.....	27
3.7.1	<i>Use Case Diagram</i>	28
3.7.2	<i>Activity Diagram</i>	29
3.7.2.1	<i>Activity Diagram Admin</i>	29
3.7.2.2	<i>Activity Diagram User</i>	30
3.7.3	<i>Class Diagram</i>	30
3.8	Struktur <i>Database</i>	31
3.9	Rancangan <i>Interface</i>	33
3.10	Pengkodean.....	39
3.11	Pengujian.....	39

BAB IV HASIL DAN PEMBAHASAN

4.1	Implementasi Aplikasi.....	40
4.1.1	Hasil Penerapan Metode Selection Sort dan Insertion Sort.....	40
4.2	Hasil <i>Interface</i> Aplikasi.....	44
4.2.1	Tampilan <i>Interface</i> Aplikasi Admin.....	44
4.2.1.1	Tampilan <i>Interface Splash Screen</i>	44
4.2.1.2	Tampilan <i>Interface</i> Halaman <i>Login</i>	45
4.2.1.3	Tampilan <i>Interface</i> Halaman <i>Register</i>	45
4.2.1.4	Tampilan <i>Interface</i> Halaman <i>Daftar Pet Shop Admin</i>	46
4.2.1.5	Tampilan <i>Interface</i> Halaman <i>Tambah Pet Shop</i>	47
4.2.1.6	Tampilan <i>Interface</i> Halaman <i>Pencarian Pet Shop</i>	47
4.2.1.7	Tampilan <i>Interface</i> Halaman <i>Chat Admin</i>	48

4.2.1.8	Tampilan <i>Interface</i> Halaman Opsi	48
4.2.2	Tampilan <i>Interface</i> Aplikasi <i>User</i>	49
4.2.2.1	Tampilan <i>Interface</i> Halaman Daftar <i>Pet Shop</i>	49
4.2.2.2	Tampilan <i>Interface</i> Halaman Pencarian <i>Pet Shop</i>	49
4.2.2.3	Tampilan <i>Interface</i> Deskripsi <i>Pet Shop</i> dan <i>Map View</i>	50
4.2.2.4	Tampilan <i>Interface</i> Halaman Rute <i>Pet Shop</i>	50
4.2.2.5	Tampilan <i>Interface</i> <i>Sorting Selection Sort (Ascending)</i>	51
4.2.2.6	Tampilan <i>Interface</i> <i>Sorting Selection Sort (Descending)</i>	51
4.2.2.7	Tampilan <i>Interface</i> <i>Sorting Insertion Sort (Ascending)</i>	52
4.2.2.8	Tampilan <i>Interface</i> <i>Sorting Insertion Sort (Descending)</i>	52
4.2.2.9	Tampilan <i>Interface</i> Halaman Grafik Memori <i>Selection Sort</i>	53
4.2.2.10	Tampilan <i>Interface</i> Halaman Grafik Waktu <i>Selection Sort</i>	53
4.2.2.11	Tampilan <i>Interface</i> Halaman Grafik Memori <i>Insertion Sort</i>	54
4.2.2.12	Tampilan <i>Interface</i> Halaman Grafik Waktu <i>Insertion Sort</i>	54
4.3	Pembahasan Hasil Pengujian Aplikasi	55
4.3.1	Hasil Pengujian Fungsi Kinerja <i>Loading</i>	55
4.3.2	Pembahasan Hasil Pengujian <i>Interface</i>	55
4.3.3	Pembahasan Hasil Perbandingan Efisiensi Algoritma.....	56
4.4	Pembahasan	57

BAB V SIMPULAN DAN SARAN

5.1	Simpulan.....	59
5.2	Saran	60

DAFTAR PUSTAKA

LAMPIRAN

DAFTAR GAMBAR

	Halaman
2.1 Gambar <i>Flowchart Selection Sort</i>	8
2.2 Gambar <i>Flowchart Insertion Sort</i>	10
2.3 Gambar Metode Perangkat Lunak yang Digunakan	12
3.1 Gambar Kerangka Kerja Penelitian	23
3.2 Gambar <i>Use Case Diagram</i> Perangkat Lunak yang Diajukan.	28
3.3 Gambar <i>Activity Diagram</i> Admin dari Perangkat Lunak yang Diajukan	29
3.4 Gambar <i>Activity Diagram User</i> dari Perangkat Lunak yang Diajukan.....	30
3.5 Gambar <i>Class Diagram</i> dari Perangkat Lunak yang Diajukan.....	31
3.6 Gambar Rancangan <i>Interface</i> Halaman <i>Splash Screen</i>	33
3.7 Gambar Rancangan <i>Interface</i> Halaman <i>Log In</i>	34
3.8 Gambar Rancangan <i>Interface</i> Halaman <i>Sign In Up</i>	34
3.9 Gambar Rancangan <i>Interface</i> Halaman Admin <i>Pet Shop</i>	35
3.10 Gambar Rancangan <i>Interface</i> Halaman Tambah <i>Pet Shop</i>	35
3.11 Gambar Rancangan <i>Interface</i> Halaman Pencarian <i>Pet Shop</i>	36
3.12 Gambar Rancangan <i>Interface</i> Halaman Chat Admin <i>Pet Shop</i>	36
3.13 Gambar Rancangan <i>Interface</i> Halaman <i>User</i>	37
3.14 Gambar Rancangan <i>Interface</i> Halaman <i>Chat User</i>	37
3.15 Gambar Rancangan <i>Interface</i> Untuk Melakukan <i>Sorting</i>	38
3.16 Gambar Rancangan <i>Interface</i> Waktu dan Grafik Memori yang Terpakai....	38
4.1 Gambar <i>Interface</i> Halaman Daftar <i>Pet Shop</i> Admin	40
4.2 Gambar <i>Interface</i> Halaman Deskripsi <i>Pet Shop</i> dan <i>Map View</i>	41
4.3 Gambar <i>Interface</i> Halaman Deskripsi <i>Pet Shop</i> dan <i>Map View</i>	41

4.4 Gambar <i>Interface</i> Halaman Deskripsi <i>Pet Shop</i> dan <i>Map View</i>	42
4.5 Gambar <i>Interface</i> Halaman <i>Sorting Selection Sort (Ascending)</i>	42
4.6 Gambar <i>Interface</i> Halaman <i>Sorting Selection Sort (Descending)</i>	43
4.7 Gambar <i>Interface</i> Halaman <i>Sorting Insertion Sort (Ascending)</i>	43
4.8 Gambar <i>Interface</i> Halaman <i>Sorting Insertion Sort (Descending)</i>	44
4.9 Gambar <i>Interface</i> Halaman <i>Splash screen</i>	45
4.10 Gambar <i>Interface</i> Halaman <i>Login</i>	45
4.11 Gambar <i>Interface</i> Halaman <i>Register</i>	46
4.12 Gambar <i>Interface</i> Halaman <i>Daftar Pet shop Admin</i>	46
4.13 Gambar <i>Interface</i> Halaman <i>Tambah Pet Shop</i>	47
4.14 Gambar <i>Interface</i> Halaman <i>Pencarian Pet Shop</i>	47
4.15 Gambar <i>Interface</i> Halaman <i>Chat Admin</i>	48
4.16 Gambar <i>Interface</i> Halaman <i>Opsi</i>	48
4.17 Gambar <i>Interface</i> Halaman <i>Daftar Pet Shop</i>	49
4.18 Gambar <i>Interface</i> Halaman <i>Pencarian Pet Shop</i>	49
4.19 Gambar <i>Interface</i> Halaman Deskripsi <i>Pet Sop</i> dan <i>Map View</i>	50
4.20 Gambar <i>Interface</i> Halaman <i>Rute Pet Shop</i>	50
4.21 Gambar <i>Interface</i> Halaman <i>Sorting Selection Sort (Ascending)</i>	51
4.22 Gambar <i>Interface</i> Halaman <i>Sorting Selection Sort (Descending)</i>	51
4.23 Gambar <i>Interface</i> Halaman <i>Sorting Insertion Sort (Ascending)</i>	52
4.24 Gambar <i>Interface</i> Halaman <i>Sorting Insertion Sort (Descending)</i>	52
4.25 Gambar <i>Interface</i> Halaman <i>Grafik Memori Selection Sort</i>	53
4.26 Gambar <i>Interface</i> Halaman <i>Grafik Waktu Selection Sort</i>	53
4.27 Gambar <i>Interface</i> Halaman <i>Grafik Memori Insertion Sort</i>	54
4.28 Gambar <i>Interface</i> Halaman <i>Grafik Waktu Selection Sort</i>	54

DAFTAR TABEL

	Halaman
2.1 Tabel Cara Kerja Selection Sort (Maximum)	6
2.2 Tabel Cara Kerja Selection Sort (Minimum Sort)	7
2.3 Tabel Cara Kerja Insertion Sort	9
2.4 Tabel Simbol-Simbol <i>Use Case Diagram</i>	13
2.4 Tabel Simbol-Simbol <i>Use Case Diagram</i> (Lanjutan).....	14
2.5 Tabel Simbol-Simbol <i>Activity Diagram</i>	14
2.5 Tabel Simbol-Simbol <i>Activity Diagram</i> (Lanjutan).....	15
2.6 Tabel Simbol-Simbol <i>Class Diagram</i>	15
2.6 Tabel Simbol-Simbol <i>Class Diagram</i> (Lanjutan).....	16
2.7 Tabel Simbol-Simbol <i>Flowchart</i>	17
2.7 Tabel Simbol-Simbol <i>Flowchart</i> (Lanjutan).....	18
3.1 Tabel Data Admin	31
3.2 Tabel Data <i>User</i>	32
3.3 Tabel Data <i>Pet Shop</i>	32
3.4 Tabel Data Jarak.....	32
3.5 Tabel Spesifikasi Perangkat Pengujian	39
4.1 Tabel Hasil Pengujian Fungsi Kinerja <i>Loading</i>	55
4.2 Tabel Hasil Perbandingan Efisiensi Algoritma.....	56