

DAFTAR ISI

| | |
|--|------|
| HALAMAN JUDUL | i |
| HALAMAN PENGESAHAN PEMBIMBING | ii |
| HALAMAN PENGESAHAN PENGUJI..... | iii |
| SURAT PENYATAAN KARYA ASLI TUGAS AKHIR | iv |
| SURAT PERNYATAAN BEBAS PLAGIAT | v |
| HALAMAN PERSEMBAHAN | vi |
| ABSTRAK | vii |
| KATA PENGANTAR..... | viii |
| DAFTAR ISI | x |
| DAFTAR GAMBAR..... | xii |
| DAFTAR TABEL | xv |
| DAFTAR MODUL PROGRAM..... | xvi |
| | |
| BAB I PENDAHULUAN | 1 |
| 1.1. Latar Belakang Masalah | 2 |
| 1.2. Rumusan Masalah | 2 |
| 1.3. Batasan Masalah..... | 3 |
| 1.4. Tujuan Penelitian..... | 3 |
| 1.5. Manfaat Penelitian..... | 3 |
| 1.6. Metode Penelitian..... | 4 |
| 1.7. Keaslian Penelitian | 4 |
| | |
| BAB II DASAR TEORI DAN TINJAUAN PUSTAKA | 6 |
| 2.1. Dasar Teori | 6 |
| 2.1.1. Sistem..... | 6 |
| 2.1.2. Aplikasi | 8 |
| 2.1.3. Android | 8 |
| 2.1.4. Android SDK | 12 |
| 2.1.5. Java Development Kit..... | 13 |
| 2.1.6. Firebase | 13 |
| 2.2. Tinjauan Pustaka | 13 |
| | |
| BAB III METODOLOGI PENELITIAN DAN PENGEMBANGAN SISTEM | 27 |
| 3.1. Pengumpulan kebutuhan (<i>requirement gathering</i>)..... | 27 |
| 3.1.1 Analisis Kebutuhan <i>User</i> | 28 |
| 3.1.2 Analisis Domain..... | 28 |
| 3.1.3 Identifikasi Sistem..... | 28 |
| 3.2. Analisis | 30 |
| 3.2.1 Identifikasi Kebutuhan Sistem | 30 |
| 3.2.1.1 Diagram <i>Use Case Client</i> | 31 |
| 3.2.1.2 Diagram <i>Use Case Admin</i> | 32 |
| 3.2.2 Diagram Class Aplikasi | 33 |
| 3.2.3 Diagram <i>Sequence</i> | 35 |
| 3.2.3.1 Diagram <i>Sequence Login User</i> | 35 |
| 3.2.3.2 Diagram <i>Sequence Register User</i> | 35 |
| 3.2.3.3 Diagram <i>Sequence User Pengumuman</i> | 36 |
| 3.2.3.4 Diagram <i>Sequence User Profil</i> | 37 |

| | |
|---|----|
| 3.2.3.5 Diagram <i>Sequence User</i> Ubah <i>Profil</i> | 38 |
| 3.2.3.6 Diagram <i>Sequence Mahasiswa</i> Konsultasi | 38 |
| 3.2.3.7 Diagram <i>Sequence Mahasiswa</i> Status | 39 |
| 3.2.3.8 Diagram <i>Sequence User</i> Pesan | 40 |
| 3.2.3.9 Diagram <i>Sequence User</i> Logout | 40 |
| 3.2.3.10 Diagram <i>Sequence Dosen</i> Input Jadwal | 41 |
| 3.2.3.11 Diagram <i>Sequence Dosen</i> Lihat Jadwal | 42 |
| 3.2.3.12 Diagram <i>Sequence Admin</i> Login..... | 42 |
| 3.2.3.13 Diagram <i>Sequence Admin</i> Pengumuman..... | 43 |
| 3.2.3.14 Diagram <i>Sequence Admin</i> Edit Pengumuman | 44 |
| 3.2.3.15 Diagram <i>Sequence Admin</i> Hapus Pengumuman..... | 44 |
| 3.2.3.16 Diagram <i>Sequence Admin</i> Input Pengumuman..... | 45 |
| 3.2.3.17 Diagram <i>Sequence Admin</i> Lihat Tabel | 46 |
| 3.2.3.18 Diagram <i>Sequence Admin</i> Input User..... | 46 |
| 3.2.3.19 Diagram <i>Sequence Admin</i> Edit User | 47 |
| 3.2.3.20 Diagram <i>Sequence Admin</i> Hapus User..... | 48 |
| 3.2.3.21 Diagram <i>Sequence Admin</i> Logout | 48 |
| 3.2.4 Diagram Activity..... | 49 |
| 3.2.4.1 Diagram Activity <i>Splash Screen</i> | 49 |
| 3.2.4.2 Diagram Activity <i>User Login</i> | 50 |
| 3.2.4.3 Diagram Activity <i>User Register</i> | 51 |
| 3.2.4.4 Diagram Activity <i>User Pengumuman</i> | 51 |
| 3.2.4.5 Diagram Activity <i>User Profil</i> | 52 |
| 3.2.4.7 Diagram Activity <i>Ubah Profil</i> | 53 |
| 3.2.4.7 Diagram Activity <i>Mahasiswa</i> Konsultasi..... | 53 |
| 3.2.4.8 Diagram Activity <i>Mahasiswa</i> Status | 54 |
| 3.2.4.9 Diagram Activity <i>User Pesan</i> | 55 |
| 3.2.4.10 Diagram Activity <i>Dosen</i> Input Jadwal | 56 |
| 3.2.4.11 Diagram Activity <i>Dosen</i> Lihat Jadwal | 56 |
| 3.2.4.12 Diagram Activity <i>User Logout</i> | 57 |
| 3.2.4.13 Diagram Activity <i>Admin Login</i> | 58 |
| 3.2.4.14 Diagram Activity <i>Admin Pengumuman</i> | 58 |
| 3.2.4.15 Diagram Activity <i>Admin Edit Pengumuman</i> | 59 |
| 3.2.4.16 Diagram Activity <i>Admin Hapus Pengumuman</i> | 60 |
| 3.2.4.17 Diagram Activity <i>Admin Input Pengumuman</i> | 61 |
| 3.2.4.18 Diagram Activity <i>Admin Lihat Tabel</i> | 62 |
| 3.2.4.19 Diagram Activity <i>Admin Input User</i> | 63 |
| 3.2.4.20 Diagram Activity <i>Admin Edit User</i> | 64 |
| 3.2.4.21 Diagram Activity <i>Admin Hapus User</i> | 65 |
| 3.2.4.22 Diagram Activity <i>Admin Logout</i> | 66 |
| 3.2.5 Entity Relation Diagram (ERD)..... | 66 |
| 3.2.6 Struktur Menu E-Konsultasi | 68 |
| 3.2.7 Struktur Menu E-Konsultasi Web | 69 |
| 3.2.8 Perancangan <i>User Interface</i> Mahasiswa | 70 |
| 3.2.8.1 Mockup <i>Login</i> | 70 |
| 3.2.8.2 Mockup Register | 70 |
| 3.2.8.3 Mockup Menu Utama..... | 71 |
| 3.2.8.4 Mockup Profil..... | 72 |
| 3.2.8.5 Mockup Konsultasi..... | 73 |

| | |
|--|-----|
| 3.2.8.6 Mockup Status Mahasiswa | 74 |
| 3.2.8.7 Mockup Pesan | 74 |
| 3.2.9 Perancangan <i>User Interface</i> Dosen | 75 |
| 3.2.9.1 Mockup Login | 75 |
| 3.2.9.2 Mockup Register | 75 |
| 3.2.9.3 Mockup Menu Utama..... | 76 |
| 3.2.9.4 Mockup Profil..... | 77 |
| 3.2.9.5 Mockup Input Jadwal | 77 |
| 3.2.9.6 Mockup Lihat Jadwal | 78 |
| 3.2.9.7 Mockup Pesan | 78 |
| 3.2.10 Perancangan <i>User Interface</i> Admin | 79 |
| 3.2.10.1 Perancangan <i>User Interface</i> Login | 79 |
| 3.2.10.2 Perancangan <i>User Interface Dashboard</i> | 79 |
| 3.2.10.3 Perancangan <i>User Interface</i> Edit Pengumuman..... | 80 |
| 3.2.10.4 Perancangan <i>User Interface</i> Input Pengumuman | 80 |
| 3.2.10.5 Perancangan <i>User Interface</i> Lihat Tabel User | 81 |
| 3.2.10.6 Perancangan <i>User Interface</i> Input User | 82 |
| 3.2.10.7 Perancangan <i>User Interface</i> Edit User | 83 |
| 3.2.10.8 Struktur Tabel SQL | 84 |
| 3.2.10.9 Struktur Tabel <i>Firebase</i> | 86 |
| BAB IV HASIL, PENGUJIAN DAN PEMBAHASAN | 87 |
| 4.1. Perangkat Keras yang Digunakan | 87 |
| 4.2. Perangkat Lunak yang Digunakan | 88 |
| 4.3. Pembahasan Aplikasi Perancangan E-Konsultasi Dengan Teknologi Firebase..... | 88 |
| 4.3.1 Halaman <i>Splash Screen</i> | 88 |
| 4.3.2 Halaman <i>Login</i> | 91 |
| 4.3.3 Halaman <i>Register</i> | 95 |
| 4.3.4 Halaman Menu Utama | 99 |
| 4.3.5 Halaman Detail Pengumuman..... | 103 |
| 4.3.6 Halaman Profil | 106 |
| 4.3.7 Halaman Input Jadwal..... | 110 |
| 4.3.8 Halaman Konsultasi | 114 |
| 4.3.9 Halaman Status..... | 118 |
| 4.3.10 Halaman Pesan | 120 |
| 4.3.11 Pengujian Aplikasi E-Konsultasi..... | 124 |
| BAB V PENUTUP | 126 |
| 5.1. Kesimpulan | 126 |
| 5.2. Saran | 127 |
| DAFTAR PUSTAKA | 128 |
| LAMPIRAN | 130 |