

DAFTAR ISI

| | |
|---|-------|
| LAPORAN TUGAS AKHIR..... | i |
| LAPORAN TUGAS AKHIR..... | ii |
| HALAMAN PENGESAHAN..... | iii |
| PERNYATAAN BEBAS PLAGIASI | iiiv |
| KATA PENGANTAR | v |
| DAFTAR ISI..... | vii |
| DAFTAR GAMBAR | x |
| DAFTAR TABEL..... | xvii |
| INTISARI..... | xviii |
| ABSTRACT..... | xix |
| BAB I PENDAHULUAN..... | 20 |
| 1.1 Latar Belakang | 20 |
| 1.2 Rumusan Masalah | 22 |
| 1.3 Batasan Masalah..... | 22 |
| 1.4 Tujuan Penelitian..... | 22 |
| 1.5 Manfaat Penelitian..... | 22 |
| 1.6 Metodologi Penelitian | 23 |
| 1.7 Sistematika Penulisan..... | 24 |
| BAB II TINJAUAN PUSTAKA..... | 26 |
| BAB III LANDASAN TEORI..... | 31 |
| 3.1 Konsep Sistem..... | 31 |
| 3.1.1 Karakteristik Sistem | 31 |
| 3.1.2 Klasifikasi Sistem | 32 |
| 3.2 Informasi | 33 |
| 3.2.1 Kualitas Informasi..... | 33 |
| 3.3 Sistem Informasi..... | 34 |
| 3.3.1 Komponen Sistem Informasi | 34 |
| 3.4 Siklus Hidup Pengembangan Sistem..... | 35 |
| 3.4.1 Tahap-Tahap Siklus Hidup Sistem..... | 36 |
| 3.5 Basis Data..... | 37 |
| 3.5.1 Sistem Manajemen Basis Data..... | 38 |
| 3.5.2 Komponen Sistem Manajemen Basis Data | 38 |
| 3.5.3 Perancangan Basis Data | 39 |
| 3.5.4 <i>Entity Relationship Diagram (ER-D)</i> | 39 |
| 3.5.5 Kardinalitas | 41 |
| 3.6 <i>Unified Modeling Language (UML)</i> | 41 |
| 3.6.1 <i>Use Case Diagram</i> | 42 |
| 3.6.2 <i>Class Diagram</i> | 42 |
| 3.6.3 <i>Activity Diagram</i> | 43 |
| 3.7 Internet..... | 44 |
| 3.8 Website | 45 |
| 3.9 Perangkat Lunak..... | 46 |
| 3.9.1 <i>Hypertext Markup Language (HTML)</i> | 46 |

| | | |
|---|--|-----|
| 3.9.2 | <i>Cascading Style Sheet (CSS)</i> | 46 |
| 3.9.3 | <i>Javascript</i> | 47 |
| 3.9.4 | <i>MySQL</i> | 47 |
| 3.9.5 | <i>REST API</i> | 47 |
| 3.9.6 | <i>React Js</i> | 47 |
| 3.9.7 | <i>Node Js</i> | 48 |
| 3.10 | <i>Alat Implementasi</i> | 48 |
| 3.10.1 | <i>Sublime Text</i> | 48 |
| 3.10.2 | <i>XAMPP</i> | 49 |
| 3.10.3 | <i>Postman</i> | 49 |
| 3.10.4 | <i>Figma</i> | 50 |
| BAB IV ANALISIS DAN PERANCANGAN SISTEM | | 51 |
| 4.1 | <i>Analisis Sistem</i> | 51 |
| 4.1.1 | <i>Analisis Pengguna Sistem</i> | 51 |
| 4.1.2 | <i>Analisis Kebutuhan Data</i> | 52 |
| 4.1.3 | <i>Analisis Kebutuhan Fungsional</i> | 54 |
| 4.1.4 | <i>Analisis Kebutuhan Non-Fungsional</i> | 57 |
| 4.2 | <i>Perancangan Sistem</i> | 57 |
| 4.2.1 | <i>Perancangan Basis Data</i> | 58 |
| 4.2.2 | <i>Perancangan Proses</i> | 67 |
| 4.2.3 | <i>Perancangan Struktur Menu</i> | 84 |
| 4.2.4 | <i>Perancangan Antarmuka Pengguna</i> | 89 |
| BAB V IMPLEMENTASI SISTEM | | 106 |
| 5.1 | <i>Implementasi Perangkat Lunak Pembangun</i> | 106 |
| 5.2 | <i>Implementasi Perangkat Keras Pembangun</i> | 107 |
| 5.3 | <i>Implementasi Basis Data</i> | 107 |
| 5.4 | <i>Implementasi REST API</i> | 125 |
| 5.5 | <i>Implementasi Antarmuka Pengguna</i> | 150 |
| 5.5.1 | <i>Halaman Login</i> | 150 |
| 5.5.2 | <i>Halaman Sign Up</i> | 152 |
| 5.5.3 | <i>Halaman Riset Password</i> | 154 |
| 5.5.4 | <i>Halaman Dashboard Applicant Member</i> | 155 |
| 5.5.5 | <i>Halaman Form Pendaftaran Applicant Member</i> | 157 |
| 5.5.6 | <i>Halaman Profile Applicant Member</i> | 160 |
| 5.5.7 | <i>Halaman Edit Profile Applicant Member</i> | 162 |
| 5.5.8 | <i>Halaman Dashboard Member</i> | 163 |
| 5.5.9 | <i>Halaman Session</i> | 164 |
| 5.5.10 | <i>Halaman Activity Log</i> | 165 |
| 5.5.11 | <i>Halaman Add Activity Log</i> | 167 |
| 5.5.12 | <i>Halaman Curriculum</i> | 169 |
| 5.5.13 | <i>Halaman Calendar</i> | 170 |
| 5.5.14 | <i>Halaman Detail Calendar</i> | 172 |
| 5.5.15 | <i>Halaman Classroom</i> | 173 |
| 5.5.16 | <i>Halaman Room</i> | 175 |
| 5.5.17 | <i>Halaman Detail Task</i> | 177 |
| 5.5.18 | <i>Halaman Submit Task</i> | 178 |

| | | |
|--|---|-----|
| 5.5.19 | Halaman <i>Detail Material</i> | 185 |
| 5.5.20 | Halaman <i>Profile Member</i> | 179 |
| 5.5.21 | Halaman <i>Edit Profile Member</i> | 182 |
| BAB VI PENGUJIAN DAN PEMBAHASAN SISTEM | | 188 |
| 6.1 | Skenario Pengujian | 188 |
| 6.1.1 | Skenario Pengujian <i>Alpha Testing</i> | 188 |
| 6.1.2 | Skenario Pengujian <i>Beta Testing</i> | 190 |
| 6.2 | Hasil Pengujian | 192 |
| 6.2.1 | Hasil Pengujian <i>Alpha Testing</i> | 192 |
| 6.2.2 | Hasil Pengujian <i>Beta Testing</i> | 218 |
| BAB VII KESIMPULAN DAN SARAN | | 241 |
| 7.1 | Kesimpulan | 241 |
| 7.2 | Saran | 241 |
| DAFTAR PUSTAKA | | 242 |