



DAFTAR ISI

| | |
|---|-----|
| HALAMAN JUDUL..... | i |
| HALAMAN PENGESAHAN..... | iii |
| PERNYATAAN..... | iv |
| KATA PENGANTAR | v |
| DAFTAR ISI..... | vii |
| DAFTAR GAMBAR | x |
| DAFTAR TABEL..... | xiv |
| INTISARI..... | xv |
| ABSTRACT..... | xvi |
| BAB I PENDAHULUAN..... | 17 |
| 1.1 Latar Belakang | 17 |
| 1.2 Rumusan Masalah | 17 |
| 1.3 Batasan Masalah..... | 17 |
| 1.4 Tujuan Penelitian..... | 18 |
| 1.5 Manfaat Penelitian..... | 18 |
| 1.6 Metodologi Penelitian | 18 |
| 1.7 Sistematika Penulisan..... | 20 |
| BAB II TINJAUAN PUSTAKA..... | 22 |
| BAB III LANDASAN TEORI..... | 24 |
| 3.1 Konsep Dasar Sistem..... | 24 |
| 3.1.1 Elemen Sistem..... | 24 |
| 3.1.2 Karakteristik Sistem..... | 24 |
| 3.1.3 Sistem Informasi | 26 |
| 3.1.4 Komponen Sistem Informasi | 26 |
| 3.2 Siklus Hidup Pengembangan Sistem..... | 27 |
| 3.2.1 Perancangan Sistem | 28 |
| 3.2.2 Analisis Sistem..... | 28 |
| 3.2.3 Implementasi Sistem | 28 |
| 3.2.4 Pengujian Sistem..... | 29 |
| 3.3 Dashboard..... | 30 |
| 3.3.1 Jenis <i>Dashboard</i> | 31 |
| 3.3.2 Manfaat <i>Dashboard</i> | 32 |



| | | |
|--|--|----|
| 3.3.3 | Media Tampilan <i>Dashboard</i> | 32 |
| 3.4 | Balanced Scorecard | 35 |
| 3.4.1 | Manfaat <i>Balanced Scorecard</i> | 36 |
| 3.4.2 | Perspektif dalam <i>Balanced Scorecard</i> | 36 |
| 3.5 | Basis Data | 38 |
| 3.5.1 | Konsep Basis Data | 39 |
| 3.5.2 | Model Basis Data | 39 |
| 3.6 | Unified Modeling Language (UML) | 40 |
| 3.6.1 | Diagram <i>Use Case</i> | 41 |
| 3.6.2 | Diagram <i>Activity</i> | 42 |
| 3.7 | Application Programming Interface (API) | 43 |
| 3.8 | Perangkat Lunak Sistem | 43 |
| 3.8.1 | HTML | 43 |
| 3.8.2 | CSS | 44 |
| 3.8.3 | TypeScript | 44 |
| 3.8.4 | PostgreSQL | 44 |
| 3.8.5 | Java | 45 |
| 3.8.6 | Framework Angular | 45 |
| 3.8.7 | Devextreme | 46 |
| 3.9 | Alat Implementasi | 46 |
| 3.9.1 | Visual Studio Code | 46 |
| 3.9.2 | Intelij IDEA | 47 |
| 3.9.3 | Adobe XD | 47 |
| 3.9.4 | Postman | 47 |
| BAB IV ANALISIS DAN PERANCANGAN SISTEM | | 48 |
| 4.1 | Analisis Sistem | 48 |
| 4.1.1 | Analisis Pengguna Sistem | 48 |
| 4.1.2 | Analisis Kebutuhan Fungsional | 48 |
| 4.1.3 | Analisis Kebutuhan Non-Fungsional | 49 |
| 4.2 | Perancangan Sistem | 49 |
| 4.2.1 | Perancangan Basis Data | 50 |
| 4.2.2 | Perancangan Proses | 60 |
| 4.2.3 | Perancangan Struktur Menu | 68 |
| 4.2.4 | Perancangan Antarmuka Pengguna | 69 |
| BAB V IMPLEMENTASI SISTEM | | 75 |
| 5.1 | Spesifikasi Lingkungan Pengembangan Sistem | 75 |



| | | |
|---|--|-----|
| 5.1.1 | Perangkat Lunak..... | 75 |
| 5.1.2 | Perangkat Keras | 76 |
| 5.2 | Implementasi Basis Data | 76 |
| 5.2.1 | Implementasi Basis Data..... | 76 |
| 5.2.2 | Implementasi Tabel..... | 76 |
| 5.3 | Implementasi Antarmuka | 81 |
| 5.3.1 | Halaman <i>Dashboard</i> Perusahaan | 81 |
| 5.3.2 | Halaman <i>Dashboard Balanced Scorecard</i> | 83 |
| 5.3.3 | Halaman Pengaturan <i>Dashboard</i> Perusahaan | 84 |
| 5.3.4 | Halaman Pengaturan <i>Dashboard Balanced Scorecard</i> | 86 |
| 5.3.5 | Halaman Daftar KPI..... | 88 |
| 5.3.6 | Halaman Tambah KPI..... | 90 |
| 5.3.7 | Halaman Riwayat Data <i>Dashboard</i> | 92 |
| 5.3.8 | Halaman Riwayat Data <i>Balanced Scorecard</i> | 93 |
| 5.3.9 | Halaman menu SBU..... | 95 |
| 5.3.10 | Halaman Data Satuan..... | 96 |
| 5.3.11 | Halaman Data SBU | 99 |
| BAB VI HASIL PENGUJIAN DAN PEMBAHASAN | | 102 |
| 6.1 | Skenario Pengujian Sistem..... | 102 |
| 6.2 | Hasil Pengujian Sistem..... | 104 |
| 6.2.1 | Pengujian halaman <i>dashboard</i> | 104 |
| 6.2.2 | Pengujian halaman <i>dashborad balanced scorecard</i> | 105 |
| 6.2.3 | Pengujian <i>login</i> | 106 |
| 6.2.4 | Pengujian <i>update data dashboard</i> | 107 |
| 6.2.5 | Pengujian kelola KPI..... | 111 |
| 6.2.6 | Pengujian <i>update data balanced scorecard</i> | 114 |
| 6.2.7 | Pengujian kelola data satuan..... | 114 |
| 6.2.8 | Pengujian kelola data SBU..... | 116 |
| 6.2.9 | Pengujian <i>logout</i> | 119 |
| BAB VII KESIMPULAN DAN SARAN..... | | 121 |
| 7.1 | Kesimpulan..... | 121 |
| 7.2 | Saran | 121 |
| DAFTAR PUSTAKA | | 122 |
| LAMPIRAN..... | | 125 |