

DAFTAR ISI

| | |
|--|------|
| LEMBAR PERNYATAAN ORISINALITAS | i |
| LEMBAR PENGESAHAN | ii |
| ABSTRAK | iii |
| <i>ABSTRACT</i> | iv |
| KATA PENGANTAR | v |
| DAFTAR ISI..... | vi |
| DAFTAR GAMBAR | x |
| DAFTAR TABEL..... | xiii |
| DAFTAR LAMPIRAN..... | xvi |
| BAB I PENDAHULUAN..... | 1 |
| I.1 Latar Belakang..... | 1 |
| I.2 Rumusan Masalah..... | 5 |
| I.3 Tujuan Penelitian | 6 |
| I.4 Batasan Penelitian..... | 6 |
| I.5 Manfaat Penelitian | 6 |
| I.6 Sistematika Penulisan | 7 |
| BAB II KAJIAN PUSTAKA | 8 |
| II.1 <i>Financial Technology (Fintech)</i> | 8 |
| II.2 Disabilitas Penglihatan | 10 |
| II.3 <i>Clean Architecture</i> | 12 |
| II.4 <i>REST API</i> | 14 |
| II.5 <i>Agile Software Development</i> | 18 |
| II.6 Extreme Programming (XP)..... | 26 |
| II.7 <i>State of the Art</i> | 32 |
| BAB III METODOLOGI PENELITIAN | 36 |
| III.1 Model Konseptual | 36 |
| III.2 Sistematika Penelitian | 37 |
| III.2.1 Tahap Pendahuluan | 37 |
| III.2.2 Tahap Pengembangan Sistem | 38 |

| | |
|---|----|
| III.2.3 Tahap Penutup..... | 39 |
| III.3 Alasan Pemilihan Metode | 39 |
| BAB IV ANALISIS DAN PERANCANGAN..... | 41 |
| IV.1 Analisis Proses Bisnis <i>Exsisting</i> | 41 |
| IV.1.1 Register | 41 |
| IV.1.2 Login | 43 |
| IV.1.3 Top-Up | 45 |
| IV.1.4 Pembelian Pulsa & Paket Data..... | 47 |
| IV.1.5 Pembelian Token / Pembayaran Listrik PLN | 50 |
| IV.1.6 Pembayaran Tagihan PDAM | 53 |
| IV.1.7 Riwayat Transaksi..... | 55 |
| IV.2 Analisis GAP | 57 |
| IV.3 Analisis Proses Bisnis <i>Targetting</i> | 58 |
| IV.3.1 Pembelian Token / Pembayaran Listrik PLN | 59 |
| IV.3.2 Top-Up..... | 62 |
| IV.3.3 Melihat Riwayat Transaksi | 64 |
| IV.4 Analisis Kebutuhan Fungsional | 66 |
| IV.4.1 <i>Use Case Diagram</i> | 66 |
| IV.4.2 <i>Use Case Scenario</i> | 67 |
| IV.5 <i>Activity Diagram</i> | 76 |
| IV.5.1 <i>Activity Register</i> | 76 |
| IV.5.2 <i>Activity Login</i> | 79 |
| IV.5.3 <i>Activity Cek Riwayat Transaksi</i> | 81 |
| IV.5.4 <i>Activity Pembelian Pulsa dan Paket Data</i> | 83 |
| IV.5.5 <i>Activity Pembayaran Tagihan PDAM</i> | 85 |
| IV.5.6 <i>Activity Pembayaran Tagihan Listrik PLN</i> | 87 |
| IV.5.7 <i>Activity Menggunakan Promo</i> | 89 |
| IV.5.8 <i>Activity Mengupdate Profil</i> | 91 |
| IV.5.9 <i>Activity Melihat Promo</i> | 92 |
| IV.5.10 <i>Activity Top-Up</i> | 93 |
| IV.5.11 <i>Activity Diagram Request OTP</i> | 95 |

| | | |
|---------|--|-----|
| IV.5.12 | <i>Activity Diagram Validate OTP</i> | 96 |
| IV.5.13 | <i>Activity Cek Status Top-Up</i> | 97 |
| IV.6 | <i>Sequence Diagram</i> | 99 |
| IV.6.1 | <i>Sequence Register</i> | 99 |
| IV.6.2 | <i>Sequence Login</i> | 100 |
| IV.6.3 | <i>Sequence Diagram Request OTP</i> | 101 |
| IV.6.4 | <i>Sequence Diagram Validate OTP</i> | 102 |
| IV.6.5 | <i>Sequence Top-Up</i> | 103 |
| IV.6.6 | <i>Sequence Cek Status Top-Up</i> | 104 |
| IV.6.7 | <i>Sequence Cek Riwayat Transaksi</i> | 105 |
| IV.6.8 | <i>Sequance Mengisi Pulsa dan Paket Data</i> | 106 |
| IV.6.9 | <i>Sequence Membayar PDAM</i> | 107 |
| IV.6.10 | <i>Sequence Membayar Tagihan Listrik PLN</i> | 108 |
| IV.6.11 | <i>Sequence Melihat Promo</i> | 109 |
| IV.6.12 | <i>Sequence Mengupdate Profil</i> | 110 |
| IV.7 | <i>Entity Relationship Diagram</i> | 111 |
| IV.7.1 | <i>Deskripsi ERD</i> | 111 |
| IV.7.2 | <i>Schema Database</i> | 112 |
| IV.8 | <i>Class Diagram</i> | 113 |
| IV.9 | <i>Three Tier Architecture Diagram</i> | 114 |
| IV.10 | <i>Deployment Diagram</i> | 114 |
| IV.11 | <i>Clean Architecture</i> | 115 |
| BAB V | IMPLEMENTASI DAN PENGUJIAN | 116 |
| V.1 | <i>Tahap Pendahuluan</i> | 116 |
| V.2 | <i>Iterationn Schedule</i> | 116 |
| V.3 | <i>Iterasi Pertama</i> | 116 |
| V.3.1 | <i>Planning</i> | 116 |
| V.3.2 | <i>Design</i> | 117 |
| V.3.3 | <i>Coding</i> | 117 |
| V.3.4 | <i>Testing</i> | 120 |
| V.3.5 | <i>Evaluasi</i> | 122 |

| | |
|---|-----|
| V.4 Iterasi Kedua | 123 |
| V.4.1 <i>Coding</i> | 123 |
| V.4.2 <i>Testing</i> | 130 |
| V.4.3 Evaluasi..... | 137 |
| V.5 Iterasi Ketiga | 138 |
| V.5.1 <i>Coding</i> | 138 |
| V.5.2 <i>Deployment</i> | 139 |
| V.5.3 Hasil Load Testing Aplikasi Visipay | 146 |
| V.5.4 Evaluasi..... | 148 |
| BAB VI KESIMPULAN DAN SARAN | 149 |
| VI.1 Kesimpulan | 149 |
| VI.2 Saran | 149 |
| DAFTAR PUSTAKA | 151 |
| LAMPIRAN..... | 155 |