

DAFTAR ISI

| | |
|--|------|
| HALAMAN PENGESAHAN | ii |
| PERNYATAAN BEBAS PLAGIASI | iii |
| HALAMAN PERSEMBAHAN | iv |
| KATA PENGANTAR | v |
| DAFTAR ISI..... | vi |
| DAFTAR TABEL..... | viii |
| DAFTAR GAMBAR | ix |
| DAFTAR SINGKATAN | xi |
| INTISARI | xii |
| <i>ABSTRACT</i> | xiii |
| BAB I. PENDAHULUAN | 1 |
| 1.1. Latar Belakang..... | 1 |
| 1.2. Rumusan Masalah | 2 |
| 1.3. Batasan Tugas Akhir | 3 |
| 1.4. Tujuan Tugas Akhir..... | 3 |
| 1.5. Manfaat Tugas Akhir..... | 3 |
| 1.6. Sistematika Penulisan..... | 3 |
| BAB II. TINJAUAN PUSTAKA DAN DASAR TEORI | 5 |
| 2.1. Tinjauan Pustaka | 5 |
| 2.2. Dasar Teori | 6 |
| 2.2.1. Ujian Online (E-assessment) | 6 |
| 2.2.2. Pengawasan Online (Online Proctoring) | 7 |
| 2.2.3. Segmentation Uploading | 7 |
| 2.2.4. Multi Thread Recording | 8 |
| 2.2.5. Online Proctoring System..... | 8 |
| 2.2.6. Intelligence Streaming | 9 |
| 2.3. Analisis Perbandingan Metode..... | 9 |
| BAB III. METODE TUGAS AKHIR..... | 10 |
| 3.1. Alat dan Bahan Tugas Akhir | 10 |
| 3.1.1. Alat Tugas akhir | 10 |



| | | |
|-----------|---|----|
| 3.2. | Alur Tugas Akhir..... | 11 |
| 3.2.1. | Alur Pengerjaan Tugas Akhir | 11 |
| 3.3. | Dynamic System Development Method (DSDM) | 13 |
| 3.3.1. | Feasibility Study | 14 |
| 3.3.2. | Business Study..... | 16 |
| 3.3.3. | Functional Model..... | 20 |
| 3.3.4. | Design and Build Iteration..... | 21 |
| 3.3.5. | Implementasi | 26 |
| 3.3.6. | Evaluasi | 26 |
| BAB IV. | HASIL DAN PEMBAHASAN..... | 27 |
| 4.1. | Hasil Perancangan Sistem <i>Online Proctoring</i> | 27 |
| 4.2. | Implementasi | 29 |
| 4.2.1. | Implementasi Azure Media Services: Live Streaming | 29 |
| 4.2.2. | Implementasi Azure Blob | 29 |
| 4.3. | Hasil Pengujian Fungsi: <i>Uploading</i> | 29 |
| 4.3.1. | Hasil Pemilihan Koneksi | 29 |
| 4.3.2. | Hasil Pengujian Upload | 32 |
| 4.3.3. | Hasil Pengujian Manual Resumable | 33 |
| 4.4. | Hasil Pengujian Fungsi: <i>Streaming</i> | 42 |
| 4.4.1. | Hasil Pengujian Performa | 42 |
| 4.4.2. | Hasil Pengujian Latency | 62 |
| 4.5. | Pembahasan Hasil Pengembangan Sistem <i>Online Proctoring</i> | 66 |
| 4.5.1. | Skenario Proses Online Proctoring..... | 68 |
| 4.5.2. | Pembahasan Kendala Fungsi | 68 |
| 4.6. | Evaluasi | 70 |
| BAB V. | KESIMPULAN DAN SARAN | 71 |
| 5.1. | Kesimpulan..... | 71 |
| 5.2. | Saran | 71 |
| LAMPIRAN: | Kode Sistem <i>Online Proctoring</i> | 75 |