

DAFTAR ISI

LEMBAR PENGESAHAN	iii
PERNYATAAN ORISINALITAS	iv
KATA PENGANTAR	v
ABSTRAK	vii
ABSTRACT	viii
DAFTAR ISI	ix
DAFTAR GAMBAR	xi
DAFTAR TABEL	xii
BAB 1 PENDAHULUAN	1
1.1 Latar Belakang	1
1.2 Rumusan Masalah	2
1.3 Tujuan dan Manfaat	3
1.3.1 Tujuan	3
1.3.2 Manfaat	3
1.4 Batasan Masalah	3
1.5 Metodologi Penelitian	4
1.5.1 Metode Pengumpulan Data	7
1.5.2 Metode Pengembangan Sistem	7
1.6 Jadwal Pelaksanaan	8
1.7 Sistematika Penulisan	9
BAB 2 TINJAUAN PUSTAKA	10
2.1 Penelitian Terdahulu	10
2.2 Objek Penelitian	11
2.3 Dasar Teori	11
2.3.1 Pengertian Game Edukasi	11
2.3.2 <i>Game Engine</i>	12
2.3.3 <i>Aplikasi 3D Modelling</i>	12
2.3.4 <i>Augmented Reality</i>	12
2.3.5 <i>Virtual Reality</i>	12
2.3.6 <i>Android</i>	13
2.3.7 Bahasa C#	13
2.3.8 <i>Online Leaderboard Creator</i>	13

2.3.9	Metode <i>Throwaway Prototyping</i>	14
2.3.10	Metode <i>GUESS-18</i>	15
2.3.11	<i>Black Box Testing</i>	15
BAB 3	METODOLOGI	16
3.1	Metode yang Digunakan	16
3.1.1	<i>Planning</i>	16
3.1.2	<i>Analysis</i>	16
3.1.3	<i>Design</i>	17
3.1.4	<i>Implementation</i>	17
3.2	Alat dan Bahan Penelitian	17
3.2.1	<i>Unity</i>	18
3.2.2	<i>Blender</i>	18
3.2.3	<i>Microsoft Visual Studio Code</i>	19
3.2.4	<i>AR Core</i>	19
3.2.5	<i>Leaderboard Creator by Danial Jumagaliyev</i>	20
3.3	Prosedur Penelitian	20
3.3.1	Analisis	20
3.3.2	Perancangan	24
BAB 4	HASIL DAN PEMBAHASAN	40
4.1	Hasil Implementasi	40
4.2	Hasil Pengujian	54
4.2.1	<i>Black Box Testing</i>	54
4.2.2	<i>GUESS-18</i>	60
4.3	Pembahasan	62
BAB 5	KESIMPULAN DAN SARAN	67
5.1	Kesimpulan	67
5.2	Saran	68
	DAFTAR PUSTAKA	69
	LAMPIRAN	72
	Lampiran 1. Judul Lampiran 1	72
	Lampiran 2. Judul Lampiran 2	73
	BIODATA PENULIS	76

DAFTAR GAMBAR

Gambar 1.1 alur metodologi	4
Gambar 1.2 <i>Throwaway prototyping</i>	7
Gambar 2.1 KB AI - Hidayah	11
Gambar 2.2 <i>Android</i>	13
Gambar 3.1 <i>Unity</i>	18
Gambar 3.2 <i>Blender</i>	18
Gambar 3.3 <i>Microsoft visual studio code</i>	19
Gambar 3.4 <i>AR Core</i>	19
Gambar 3.5 Deskripsi umum sistem.....	24
Gambar 3.6 <i>Use case diagram</i>	25
Gambar 3.7 <i>Activity diagram leaderboard</i>	28
Gambar 3.8 <i>Activity diagram</i> cara bermain	29
Gambar 3.9 <i>Activity diagram about</i>	29
Gambar 3.10 <i>Activity diagram</i> bermain.....	30
Gambar 3.11 <i>Activity diagram</i> memunculkan objek AR	32
Gambar 3.12 <i>Activity diagram</i> mengontrol objek AR.....	33
Gambar 3.13 <i>Activity diagram input username dan skor</i>	34
Gambar 3.14 <i>Mockup splash screen</i>	35
Gambar 3.15 <i>Mockup main menu</i>	36
Gambar 3.16 <i>Mockup menu player</i>	37
Gambar 3.17 <i>Mockup menu score & profile</i>	38
Gambar 3.18 <i>Mockup AR camera</i>	39
Gambar 4.1 <i>Prototype 1 main menu</i>	40
Gambar 4.2 <i>Prototype 1 menu player</i>	41
Gambar 4.3 <i>Prototype 1 menu score & profile</i>	42
Gambar 4.4 <i>Prototype 1 AR camera</i>	43
Gambar 4.5 <i>Prototype 2 main menu</i>	44
Gambar 4.6 <i>Prototype 2 menu leaderboard</i>	45
Gambar 4.7 <i>Prototype 2 menu</i> cara bermain	46
Gambar 4.8 <i>Prototype 2 menu about</i>	47
Gambar 4.9 <i>Prototype 2 menu AR camera</i>	48
Gambar 4.10 <i>Prototype 2 AR camera</i>	49
Gambar 4.11 <i>Prototype 2 menu submit score</i>	50
Gambar 4.12 <i>Workspace unity</i> untuk membuat <i>menu leaderboard</i>	52
Gambar 4.13 <i>Workspace unity</i> untuk membuat <i>user interface</i>	52
Gambar 4.14 <i>Workspace blender</i>	53
Gambar 4.15 Diagram radar <i>means of GUESS subscales</i>	65
Gambar 4.16 Diagram batang <i>means of GUESS subscales</i>	65
Gambar 5.1 <i>Workspace unity user interace</i> cara bermain	72
Gambar 5.2 <i>Workspace unity user interface submit score</i>	72
Gambar 5.3 <i>Workspace unity user interface about</i>	73

DAFTAR TABEL

Tabel 1.1 Tabel jadwal pelaksanaan	8
Tabel 4.1 Pengujian UC-02.....	55
Tabel 4.2 Pengujian UC-03.....	56
Tabel 4.3 Pengujian UC-04.....	56
Tabel 4.4 Pengujian UC-05.....	58
Tabel 4.5 Pengujian UC-06.....	59
Tabel 4.6 Pengujian UC-06.....	59
Tabel 4.7 Tabel Kuesioner GUESS-18	61
Tabel 4.8 <i>GUESS-18 items</i>	63
Tabel 4.9 Hasil kuesioner <i>GUESS-18</i> dari 20 responden	63
Tabel 4.10 Hasil <i>GUESS subscales score</i> dan <i>overall GUESS score</i>	64
Tabel 4.12 <i>Standard deviations of GUESS Subscales</i>	64
Tabel 4.11 <i>Means of GUESS Subscales</i>	64