

## ABSTRAK

Aplikasi “Magic & Wizard Card Battle” adalah permainan komputer yang bertema *Trading Card Game* yang dikembangkan dengan menggunakan bahasa pemrograman *Action Script 3.0* dan berjalan dengan *runtime Adobe Flash Player*. Tujuan dari permainan Magic & Wizard Card Battle ini adalah membuat Poin musuh menjadi 0. Pada permainan Magic & Wizard Card Battle ini terdapat 2 fitur utama, yaitu *Single Player* dan *Multiplayer*. Fitur *Single Player* dalam permainan ini membuat pemain bertarung dengan melawan *CPU*, dan fitur *Multiplayer* yang membuat sesama pemain dapat bertarung dan mencoba kemampuan dengan melawan sesama pemain. *SmartFoxServer PRO* digunakan untuk menjalankan fitur *Multiplayer* pada game ini, karena *SmartFoxServer PRO* merupakan *server* untuk *multi-platform* game yang berintegrasi dengan *Adobe Flash*.

Kata kunci: *Adobe Flash Player*, *Action Script 3.0*, *SmartFoxServer PRO*, *Flash Game Multiplayer*.

## ***ABSTRACT***

*Magic & Wizard Card Battle is a Trading Card computer game that developed using programming language Action Script 3.0 and run using runtime Adobe Flash Player. The goal of Magic & Wizard Card Battle game is make enemy point become 0. There are two main features in Magic & Wizard Card Battle game, they are Single player, and multiplayer mode. In single player mode, player compete against CPU, and in multiplayer mode, player can compete against another player to test their skill. Multiplayer mode in this game running using SmartFoxServer PRO, SmartFoxServer PRO which is a multi-platform game server designed to integrated with Adobe Flash.*

*Keywords: Adobe Flash Player, Action Script 3.0, SmartFoxServer PRO, Flash Game Multiplayer.*

# DAFTAR ISI

PRAKATA .....	i
ABSTRAK.....	ii
<i>ABSTRACT</i> .....	iii
DAFTAR ISI.....	iv
DAFTAR GAMBAR.....	vii
DAFTAR TABEL .....	x
BAB I PENDAHULUAN .....	1
1.1. Latar Belakang.....	1
1.2. Rumusan Masalah.....	1
1.3. Tujuan .....	1
1.4. Batasan Masalah .....	2
1.5. Sistematika Pembahasan .....	2
BAB II DASAR TEORI .....	3
2.1. Aturan Permainan Magic & Wizard Card Battle .....	3
2.1.1. <i>Deck</i> .....	3
2.1.2. Poin .....	3
2.1.3. Syarat Menang .....	3
2.2. <i>Action Script 3.0</i> .....	3
2.2.1. Membuat Screen Output .....	4
2.2.2. Membuat Variabel dan Operasi Numerik .....	4
2.2.3. Membuat Kondisional.....	5
2.2.4. Membuat Perulangan .....	6
2.2.5. Membuat Kelas .....	6
2.2.6. Membuat Fungsi .....	7
2.3. <i>SmartFoxServer</i> .....	7
2.4. MYSQL.....	8
2.5. ENTITY RELATIONSHIP DIAGRAM.....	10
2.6. <i>Adobe Flash</i> .....	12
2.6.1. <i>Adobe Flash Player</i> .....	13
2.6.2. File Format .....	13
2.6.3. <i>Authoring tool/IDE</i> .....	13

BAB III ANALISIS DAN PEMODELAN .....	14
3.1. Rincian Game Magic & Wizard Card Battle.....	14
3.1.1. Kartu.....	14
3.1.2. Giliran.....	16
3.1.3. Cara Mengurangi Poin.....	18
3.1.4. <i>Battle Damage</i> .....	19
3.2. Arsitektur Game.....	19
3.2.1. Activity Diagram.....	20
3.3. ER-Diagram.....	24
3.4. Class Diagram.....	26
3.5. Layout Tampilan.....	33
3.5.1. Area Bertarung.....	33
3.5.2. Tampilan Bertarung .....	35
3.5.3. Menu Login .....	37
3.5.4. Menu Registrasi .....	37
3.5.5. Menu Utama .....	38
3.5.6. Menu Multi Player .....	38
3.5.7. Menu Edit Deck.....	39
3.6. Creative Strategi.....	41
3.6.1. Kartu Monster .....	41
3.6.2. Kartu Sihir.....	41
3.6.3. Kartu Trap .....	42
3.6.4. Area Bertarung.....	43
BAB IV PERANCANGAN DAN IMPLEMENTASI .....	44
4.1. Implementasi Kelas .....	44
4.2. Screen Shot .....	57
4.2.1. Login.....	57
4.2.2. Register .....	57
4.2.3. Main Menu.....	58
4.2.4. Single – Rock, Paper, Scissors.....	58
4.2.5. Single – First / Second .....	59
4.2.6. Arena .....	60
4.2.7. Summon .....	61
4.2.8. Magic.....	61

4.2.9.	Monster Attack .....	62
4.2.10.	Result .....	63
4.2.11.	Lobby .....	63
4.2.12.	Create Room .....	64
4.2.13.	Waiting Room .....	64
4.2.14.	Join Room.....	65
4.2.15.	Multiplayer – Rock, Paper, Scissors .....	65
4.2.16.	Multiplayer – First / Second.....	66
4.2.17.	Arena Multiplayer .....	66
4.2.18.	Deck Edit .....	67
BAB V PENGUJIAN.....		68
5.1.	Metodologi Pengujian (Blackbox Testing) .....	68
5.2.	Survei .....	71
BAB VI KESIMPULAN DAN SARAN.....		72
6.1.	Kesimpulan.....	72
6.2.	Saran .....	72
DAFTAR PUSTAKA .....		73
LAMPIRAN .....		74

## DAFTAR GAMBAR

Gambar 2.1 Hasil Screen Output .....	4
Gambar 2.2 Notasi Entitas .....	10
Gambar 2.3 Notasi Attribut .....	11
Gambar 2.4 Notasi Relasi.....	11
Gambar 2.5 Satu Ke Satu .....	11
Gambar 2.6 Satu Ke Banyak.....	12
Gambar 2.7 Banyak ke satu .....	12
Gambar 2.8 Banyak ke Banyak.....	12
Gambar 3.1 Kartu Monster .....	14
Gambar 3.2 Kartu Sihir.....	15
Gambar 3.3 Kartu <i>Trap</i> .....	16
Gambar 3.4 Tahap dalam giliran.....	17
Gambar 3.5 Use Case Diagram .....	20
Gambar 3.6 Activity Diagram Single Player .....	21
Gambar 3.7 Activity Diagram Multiplayer .....	22
Gambar 3.8 Activity Diagram Deck Edit.....	23
Gambar 3.9 Activity Diagram Tutorial .....	23
Gambar 3.10 ER-Diagram.....	24
Gambar 3.11 Relasi dari Class Diagram .....	26
Gambar 3.12 Class Diagram Login .....	27
Gambar 3.13 Class Diagram MainMenu .....	27
Gambar 3.14 Class Diagram RPSChoice .....	27
Gambar 3.15 Class Diagram FirstSecond .....	28
Gambar 3.16 Class Diagram Arena - 1 .....	28
Gambar 3.17 Class Diagram Arena - 2 .....	29
Gambar 3.18 Class Diagram Arena -3 .....	30
Gambar 3.19 Class Diagram LobbyMultiplayer.....	30
Gambar 3.20 Class Diagram RPSChoiceMultiplayer .....	31
Gambar 3.21 Class Diagram FirstSecondMultiplayer .....	31
Gambar 3.22 Class Diagram ArenaMultiplayerWindows - 1 .....	32

Gambar 3.23 Class Diagram ArenaMultiplayerWindows - 2 .....	33
Gambar 3.24 Area Bertarung.....	34
Gambar 3.25 Kartu Monster Posisi Menyerang.....	34
Gambar 3.26 Kartu Monster Posisi Bertahan .....	34
Gambar 3.27 Tampilan Bertarung .....	35
Gambar 3.28 Gambar 2 Area bertarung.....	35
Gambar 3.29 Gambar 2 Poin.....	36
Gambar 3.30 Gambar Tahap.....	36
Gambar 3.31 Gambar Detail Kartu .....	36
Gambar 3.32 Gambar Tempat Kartu ditangan .....	37
Gambar 3.33 Tampilan Menu Login.....	37
Gambar 3.34 Gambar Menu Registrasi.....	38
Gambar 3.34 Gambar Menu Utama .....	38
Gambar 3.35 Gambar Menu Multi Player.....	38
Gambar 3.36 Gambar Edit Deck.....	39
Gambar 3.37 Gambar Card List.....	39
Gambar 3.38 Gambar Deck List .....	40
Gambar 3.39 Gambar Jumlah Kartu.....	40
Gambar 3.40 Gambar Detail Kartu .....	40
Gambar 3.41 Desain Kartu Monster .....	41
Gambar 3.42 Desain Kartu Sihir.....	42
Gambar 3.43 Desain Kartu Trap.....	42
Gambar 3.44 Desain Area Bertarung .....	43
Gambar 4.1 Screen Shot Login.....	57
Gambar 4.2 Screen Shot Register .....	57
Gambar 4.3 Screen Shot Main Menu.....	58
Gambar 4.4 Screen Shot Single – Rock, Paper, Scissors - 1 .....	58
Gambar 4.5 Screen Shot Single – Rock, Paper, Scissors - 2 .....	59
Gambar 4.6 Screen Shot Single – First / Second - 1.....	59
Gambar 4.7 Screen Shot Single – First / Second - 2.....	60
Gambar 4.8 Screen Shot Arena.....	60
Gambar 4.9 Screen Shot Summon .....	61
Gambar 4.10 Screen Shot Magic.....	61
Gambar 4.11 Screen Shot Monster Attack 1 .....	62

Gambar 4.12 Screen Shot Monster Attack 2 .....	62
Gambar 4.13 Screen Shot Result .....	63
Gambar 4.14 Screen Shot Lobby.....	64
Gambar 4.15 Screen Shot Create Room .....	64
Gambar 4.16 Screen Shot Waiting Room .....	64
Gambar 4.17 Screen Shot Join Room.....	65
Gambar 4.18 Screen Shot Multiplayer – Rock, Paper, Scissors .....	65
Gambar 4.19 Screen Shot Multiplayer – First / Second.....	66
Gambar 4.20 Screen Shot Arena Multiplayer .....	66
Gambar 4.21 Screen Shot Deck Edit .....	67

## DAFTAR TABEL

Tabel 3.1 Skema Database User.....	24
Tabel 3.2 Skema Database Deck.....	24
Tabel 3.3 Skema Database Card_Storage .....	25
Tabel 3.4 Skema Database Monster_Card.....	25
Tabel 3.4 Skema Database Magic_Card.....	25
Tabel 3.5 Skema Database Trap_Card .....	26
Tabel 5.1 Blackbox Testing Summon() .....	68
Tabel 5.2 Blackbox Testing PutCard(event:MouseEvent) .....	68
Tabel 5.3 Blackbox Testing Rotate(event:MouseEvent) .....	69
Tabel 5.4 Blackbox Testing BattleCard(event:MouseEvent).....	69
Tabel 5.5 Blackbox Testing GetEnemyCard(event:MouseEvent) .....	69
Tabel 5.6 Blackbox Testing Discard(event:MouseEvent) .....	70
Tabel 5.7 Blackbox Testing CardMove().....	70