

CS383: Software Engineering

HW1: Use Cases
Spring 2014

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1 Use cases

1.1 Magic

1.1.1 Magic I: Spell Segment

Magic I	Spell Segment
<i>Actors</i>	<ul style="list-style-type: none">• Phasing player• Computer
<i>Summary</i>	Phasing player cast spells
<i>Preconditions</i>	<ul style="list-style-type: none">• End of Phasing Player's Movement Phase
<i>Steps</i>	<ol style="list-style-type: none">1. Phasing player select spells2. Computer perform spells

1.1.2 Magic II: CounterSpell Segment

Magic II	CounterSpell Segment
<i>Actors</i>	<ul style="list-style-type: none">• Non-phasing Player• Computer
<i>Summary</i>	Non-phasing players case counterspells
<i>Preconditions</i>	<ul style="list-style-type: none">• End of phasing player spell segment

Steps

1. non-phasing players select counterspells in the player-order of this turn
2. Computer perform counterspells of all non-phasing players selected

1.1.3 Magic III: Spell Selection

Magic III	Spell Selection
<i>Actors</i>	<ul style="list-style-type: none">• Player
<i>Summary</i>	Players select spells to cast
<i>Preconditions</i>	<ul style="list-style-type: none">• During the movement Phase• During the Spell Segment• During the CounterSpell Segment• During the Combat Phase
<i>Steps</i> <ol style="list-style-type: none">1. Select a character who has magic PL2. Select a spell3. Click "Cast Spell" button4. Repeat steps to cast enough spells	
<i>Alternatives</i>	<ul style="list-style-type: none">• Click "End Spell Segment" button to end spell selection phase

1.1.4 Magic IV: Spell Selection Helper

Magic IV	Spell Selection Helper
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<i>Actors</i>	<ul style="list-style-type: none"> • Computer
<i>Summary</i>	Computer select all available spells for each character and show them to players
<i>Preconditions</i>	<ul style="list-style-type: none"> • Player start spell selection
<i>Steps</i>	<ol style="list-style-type: none"> 1. Make a list of all current characters who are able to cast spells 2. For each characters on the list, make another list of spells that character has ability to cast.
<i>Postconditions</i>	<ul style="list-style-type: none"> • Display a list names of spells on the screen when player select the character

1.1.5 Magic V: Spell Cast

Magic V	Spell Cast
<i>Actors</i>	<ul style="list-style-type: none"> • Computer
<i>Summary</i>	Computer performs spell casting
<i>Preconditions</i>	<ul style="list-style-type: none"> • Player assign a character to cast a spell
<i>Steps</i>	<ol style="list-style-type: none"> 1. Roll a die (Random Number) to determing spell casting succeed or not 2. Refresh information 3. Second roll taken to determine whether the character die or survive 4. Refresh information

<i>Alternatives</i>	<ul style="list-style-type: none"> • If succeed, perform the spell and cost manna points • If fail, nothing • If die, announcement and remove the information of that character • If survive, nothing
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1.1.6 Magic VI: Manna Regeneration

Magic VI	Manna Regeneration
<i>Actors</i>	<ul style="list-style-type: none"> • Computer
<i>Summary</i>	Regenerate Manna points for each Spell-casting characters
<i>Preconditions</i>	<ul style="list-style-type: none"> • End of Diplomacy Inter-phase
<i>Steps</i> <ol style="list-style-type: none"> 1. Make a list of all current characters who need implement manna regeneration phase 2. Calculate and add the mana points that each character gained based on different kind of conditions and cases 3. Computer refresh the screen to display new manna information 	
<i>Postconditinos</i>	<ul style="list-style-type: none"> • Dialog box: "Start Manna regeneration inter-phase" • Sleep for a while • Dialog box: "Manna regeneration phase done!"

1.2 Technical/Misc

1.2.1 Technical/MiscI: Players' Turns

Technical/MiscI	Players' Turns
<i>Actors</i>	<ul style="list-style-type: none">• Players, computer
<i>Summary</i>	Perform the change of player turns
<i>Preconditions</i>	<ul style="list-style-type: none">• End of player-order determination inter-phase
<i>Steps</i> <ol style="list-style-type: none">1. Computer announce which player to start turn2. Anounced player start turn3. Phasing player click "End of turn"4. Computer announce next player based on the player-order	