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# CS 319 Project

*Chess Battle*

## Analysis Report

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# Analysis Report

## 1. Introduction

Chess Battle is a strategy game with enhanced gameplay inspired by the regular chess game. Pieces will move similar to real chess moves, however, they have modified attacks and health points, attack range and special skills with cooldowns.

## 2. Proposed System

### 2.1. Overview

Chess Battle is a strategy game where player need to consider the more complex terms like health points (hp), attack points (ap), range or the remaining cooldown on a special skill to defeat the opponent. Every piece differs from other piece type according to its attributes. A more important piece like the king will have more Health Points (HP), Attack Points (AP) and more powerful skill than the other pieces. However some pieces are specialized for some roles such as rook, bishop and knight. To be able to finish the game one player need to either destroy the all unique pieces other than pawn or assassinate the opponent king first depending on the game mode selected.

### 2.2. Functional Requirements

- User should be able to start a 2-Player Game
- The Game should display a board with the pieces on, current turn's player, and a sidebar that shows information about selected game piece
- Game should play some background music
- A player can click on one of his pieces and the game will highlight the valid moves/attacks
- During one turn a player may move a piece to an empty spot, attack an enemy piece, or use a special ability of one of his pieces
- User should be able to change settings

### 2.3. Non-functional Requirements

- The Game has 2 playing modes: "Elimination" and "Assassination"

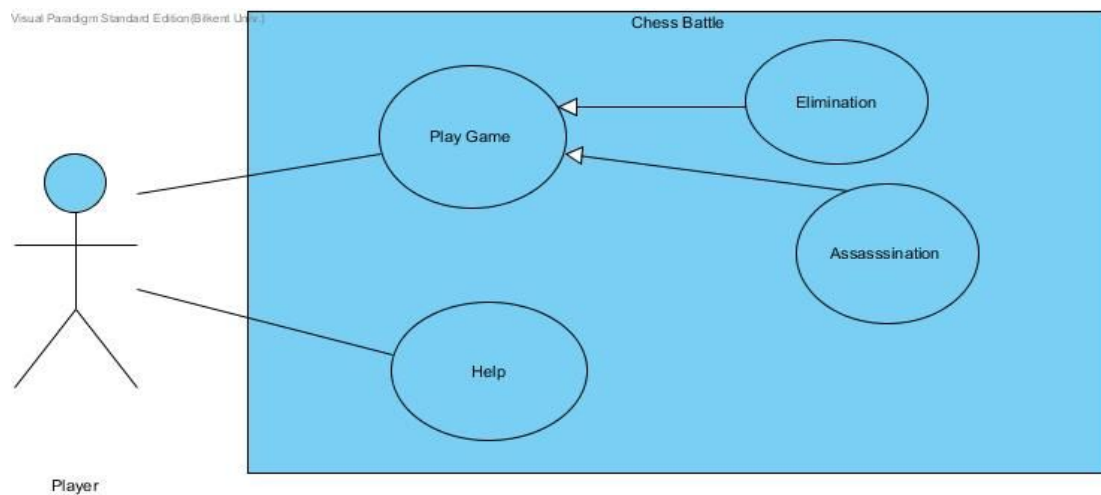
- In Elimination the game ends when a player loses all his special (non-pawns) pieces
- In Assassination the game ends when a player loses his King Piece
- Each piece has Health Points (HP) and Attack Points (AP)
- A piece dies when its HP reaches 0 or less
- A piece does damage equal to its AP when it attacks
- A player can perform one move/attack per turn.
- Some pieces will have special moves (abilities) that differ from their normal chess moves
- special moves will have cooldowns. A cooldown is a number of turns that a user should wait before the special move is available for use again

## 2.4. Pseudo Requirements

- The game will be implemented purely using Java Language
- The game will run on PC using JRE

## 2.5. System Model

### 2.5.1. Use Cases



### Use Case #1

Use case name: Start Elimination Game

Participating actors: Player

Entry condition: User clicks on “Elimination”

Exit condition:

- User exits the game
- User goes back to Main Menu
- One of the users win by eliminating all his enemy’s special pieces

Main Flow of Events: A new game in “Elimination” Mode is started

Alternative Flow of Event: Player intentionally exit the game and it causes progres loss.

## **Use Case #2**

Use case name: Start Assassination Game

Participating actors: Player

Entry condition: User clicks on “Assassination”

Exit condition:

- User exits the game
- User goes back to Main Menu
- One of the users win by killing the enemy’s king

Main Flow of Events: A new game in “Assassination” Mode is started

Alternative Flow of Event: Player intentionally exit the game and it causes progres loss.

## **Use Case #3**

Use case name: Go to Help Menu

Participating actors: Player

Entry condition: User clicks on “Help”

Exit condition:

- User exits the game
- User goes back to Main Menu

Main Flow of Events: A new window with game instructions is created

Alternative Flow of Event: Player intentionally exit the game and it causes progres loss.