

# CP317 Assignment 1

## Chess317

Project ID: CP317-TP19

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# 1. Introduction

## 1.1 Purpose

This document will explain all the requirements for the chess application, Chess317: deadline, functional and non-functional requirements, and costs.

Deadline: December 8, 2020

Costs: Budget to be determined

Functional and non-functional requirements: See below.

## 1.2 Intended Audience

This document is intended for the development team - they will refer to this document throughout development to ensure that all requirements are being met.

## 1.3 Intended Use

The chess application will be used by chess players to play the game of chess against other players.

## 1.4 Scope

The goal of Chess317 is to provide an environment and community for chess players to enjoy chess. The application will allow users to:

- create a personal account
- add other users onto their buddy list
- challenge friends to rated matches

## 1.5 Definitions and Acronyms: Glossary

<i>Term</i>	<i>Definition</i>
<i>Square</i>	One of the 64 squares on a chess board. A square is either black or white.
<i>Piece</i>	A chess piece is one of six possible pieces: Pawn, Bishop, Knight, Rook, Queen, or King.
<i>FIDE</i>	The International Chess Federation (Fédération Internationale des Échecs) is an international organization responsible for governing all international chess competition.

## 2. Overall Description

### 2.1 User Needs

Users will need to be able to play the game of chess via a graphical interface.

### 2.2 Assumptions and Dependencies

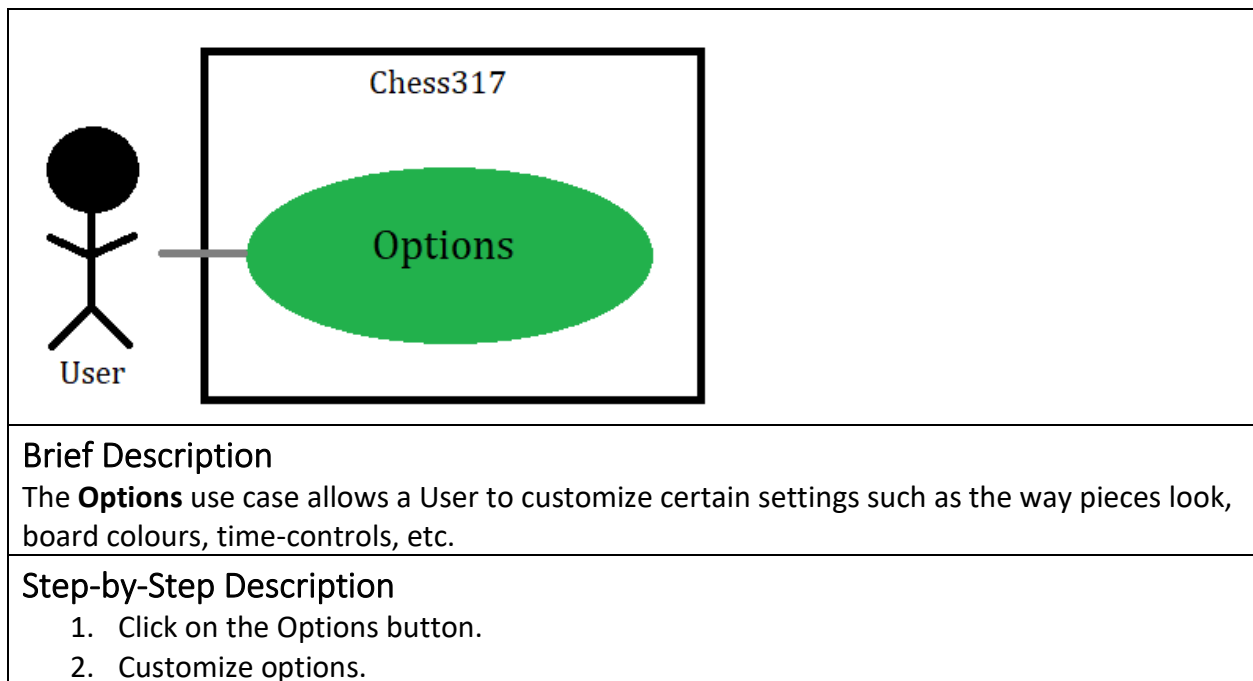
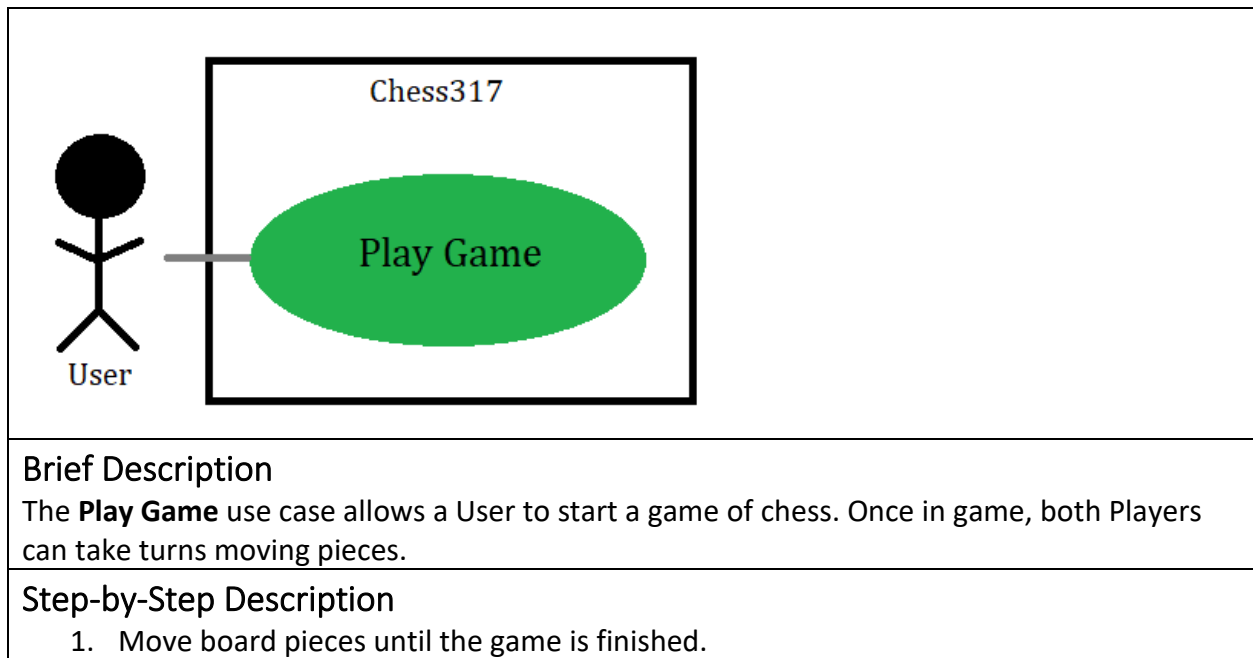
We assume that any user of Chess317 will know how to play the game of chess or is capable of learning the rules via the FIDE laws of chess (link provided in Section 3.1). In order to run the application, users will need to have Java installed on their computer. Access to a mouse and keyboard is also assumed.

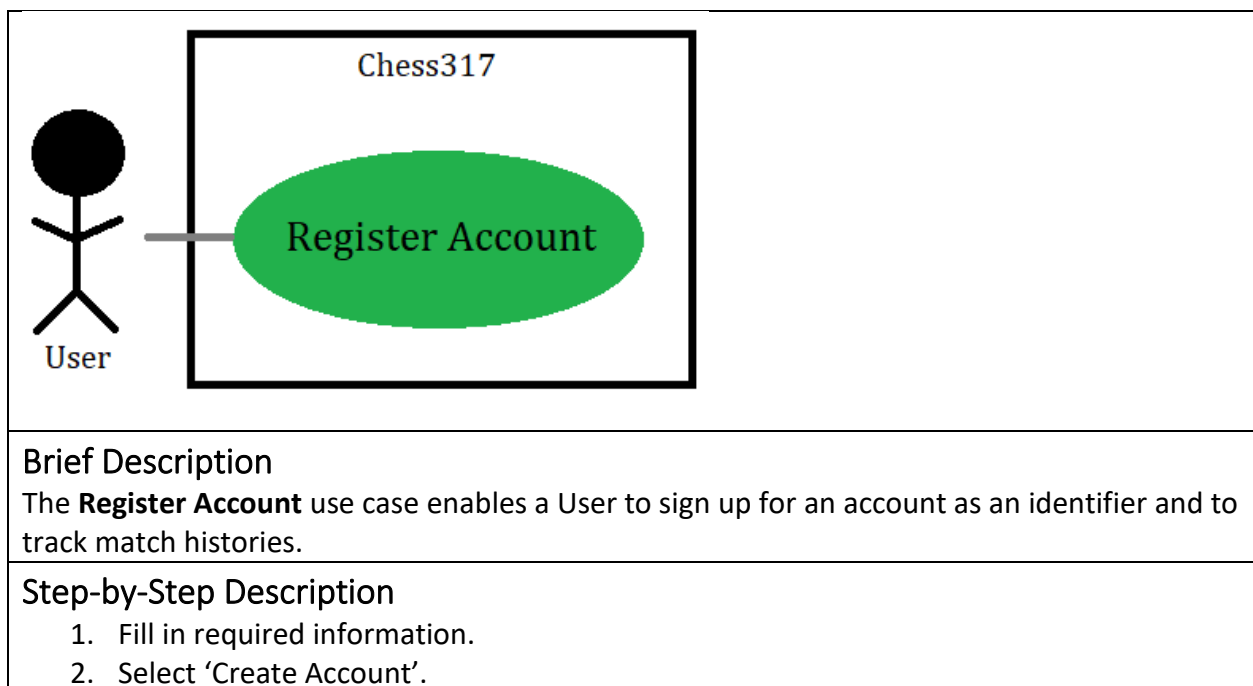
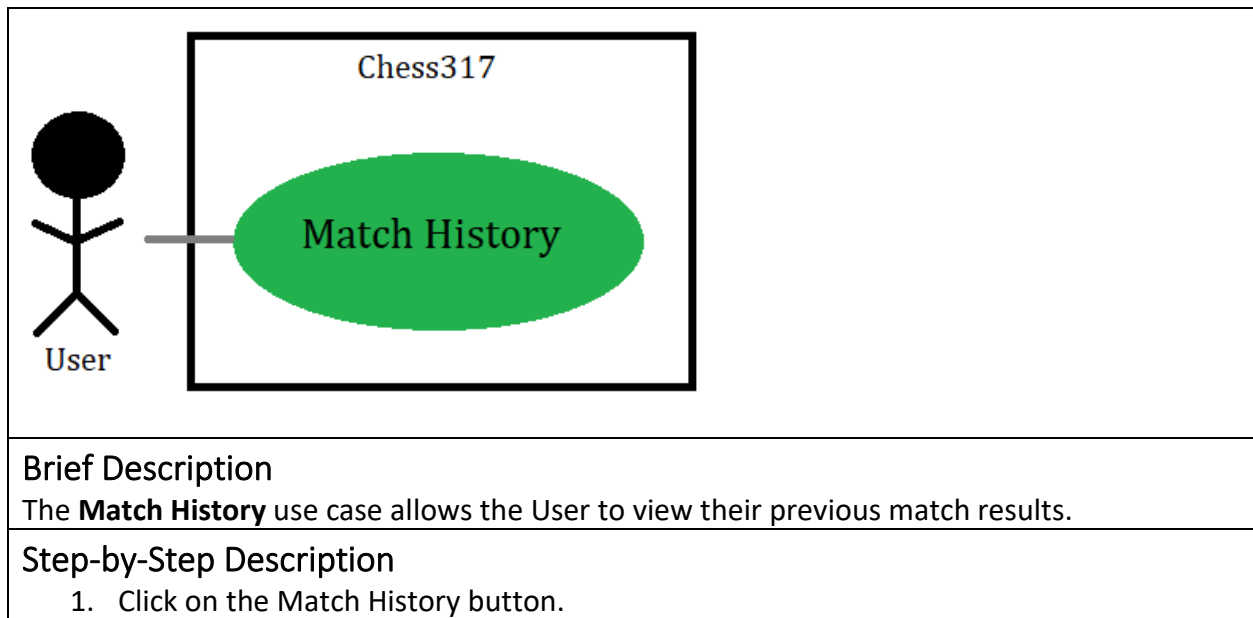
## 3. System Features and Requirements

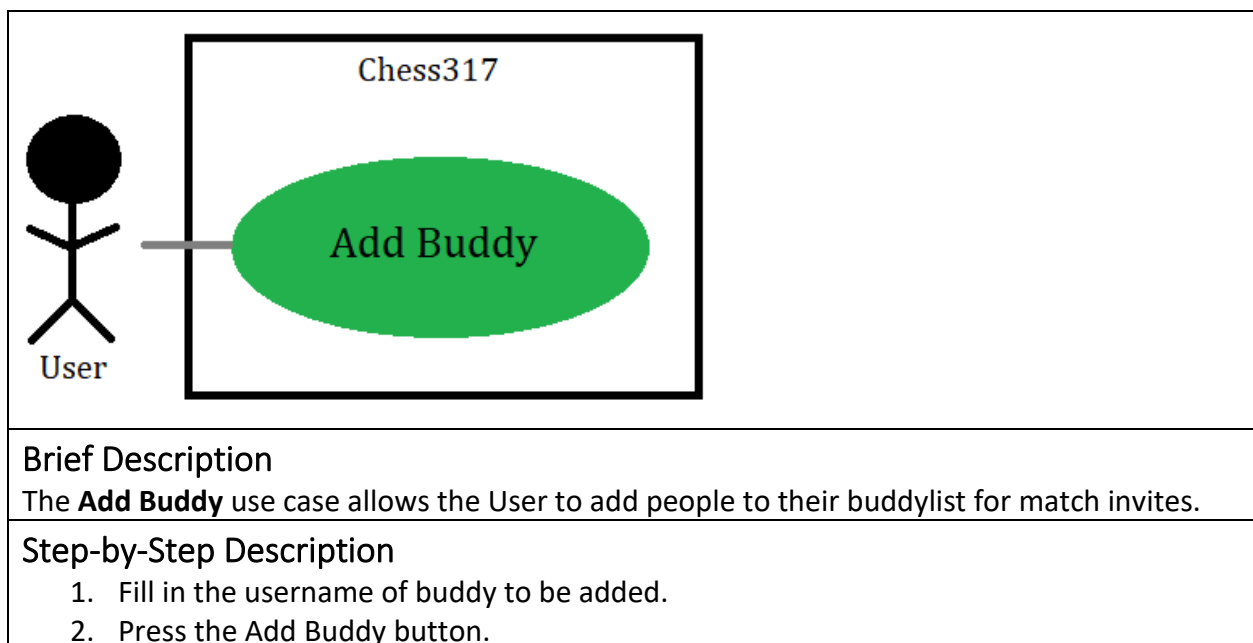
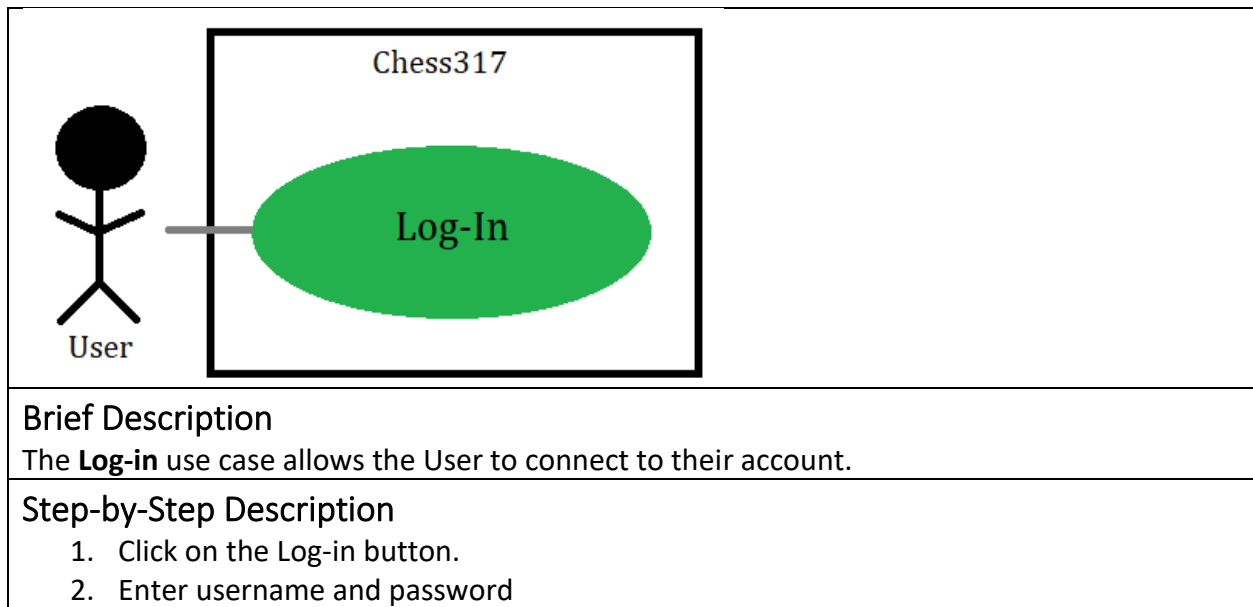
### 3.1 Functional Requirements

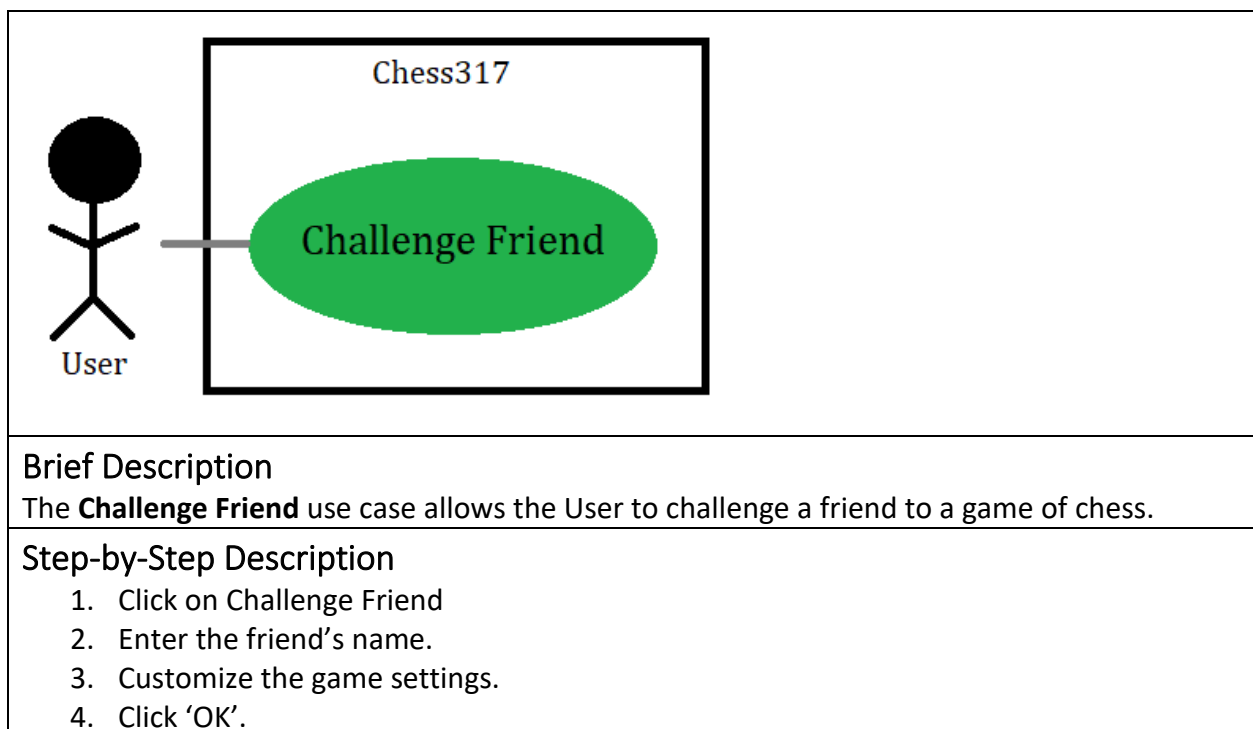
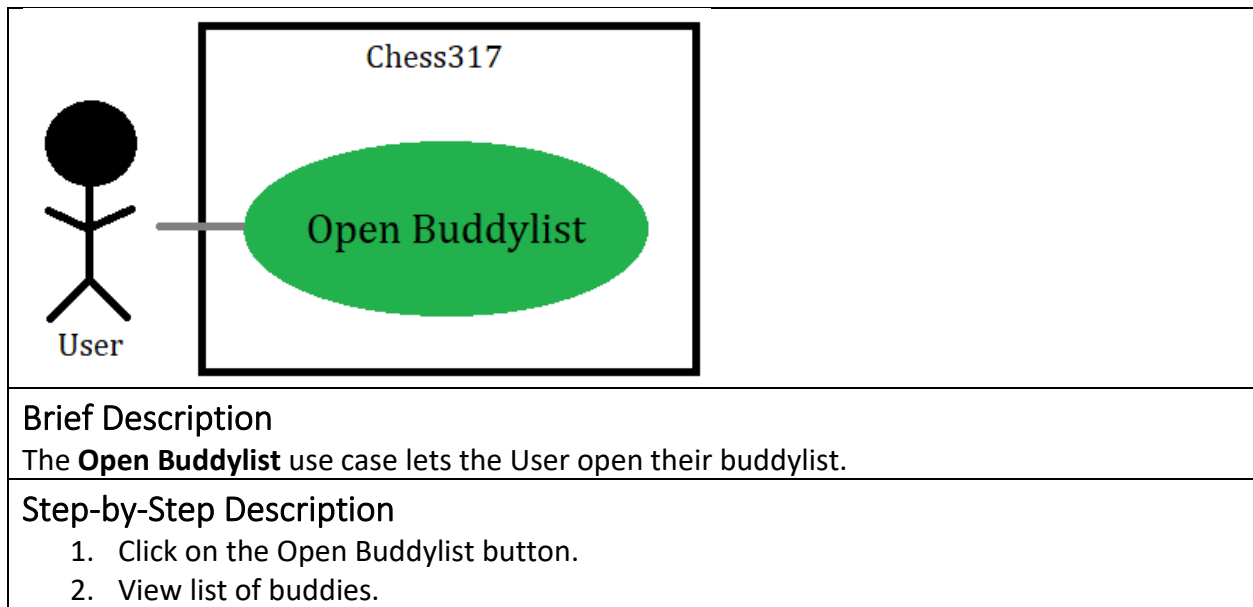
- Menu should have a 'Play' and 'Options' button
- Users should have a 'Forfeit' button while playing
- Game should follow the chess rules as outlined by the FIDE laws of chess (<https://www.fide.com/FIDE/handbook/LawsOfChess.pdf>)
- Game should track match histories, which should be viewable from the menu

### 3.1.1 Use Cases

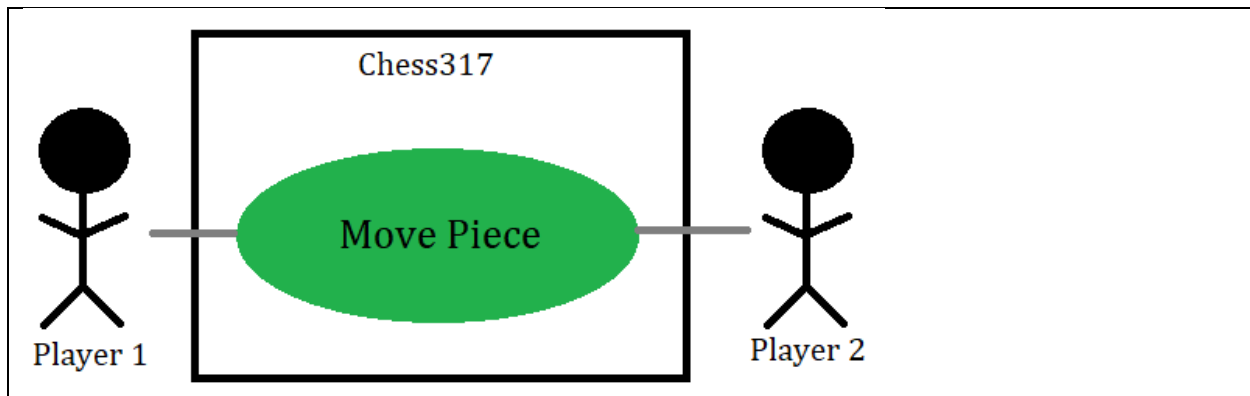










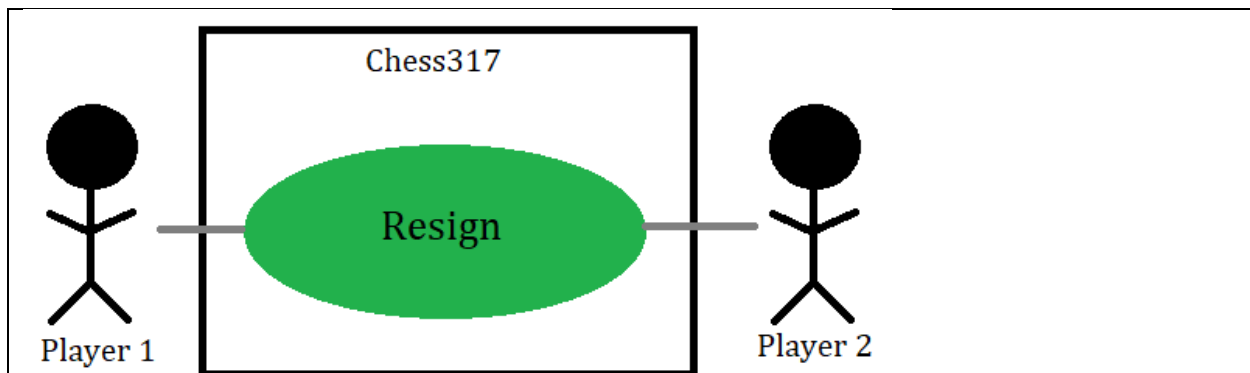


#### Brief Description

The **Move Piece** use case is available once the Player is in a match. It allows the player to move the board pieces.

#### Step-by-Step Description

1. Click on the desired piece.
2. Click on the space of intended movement.



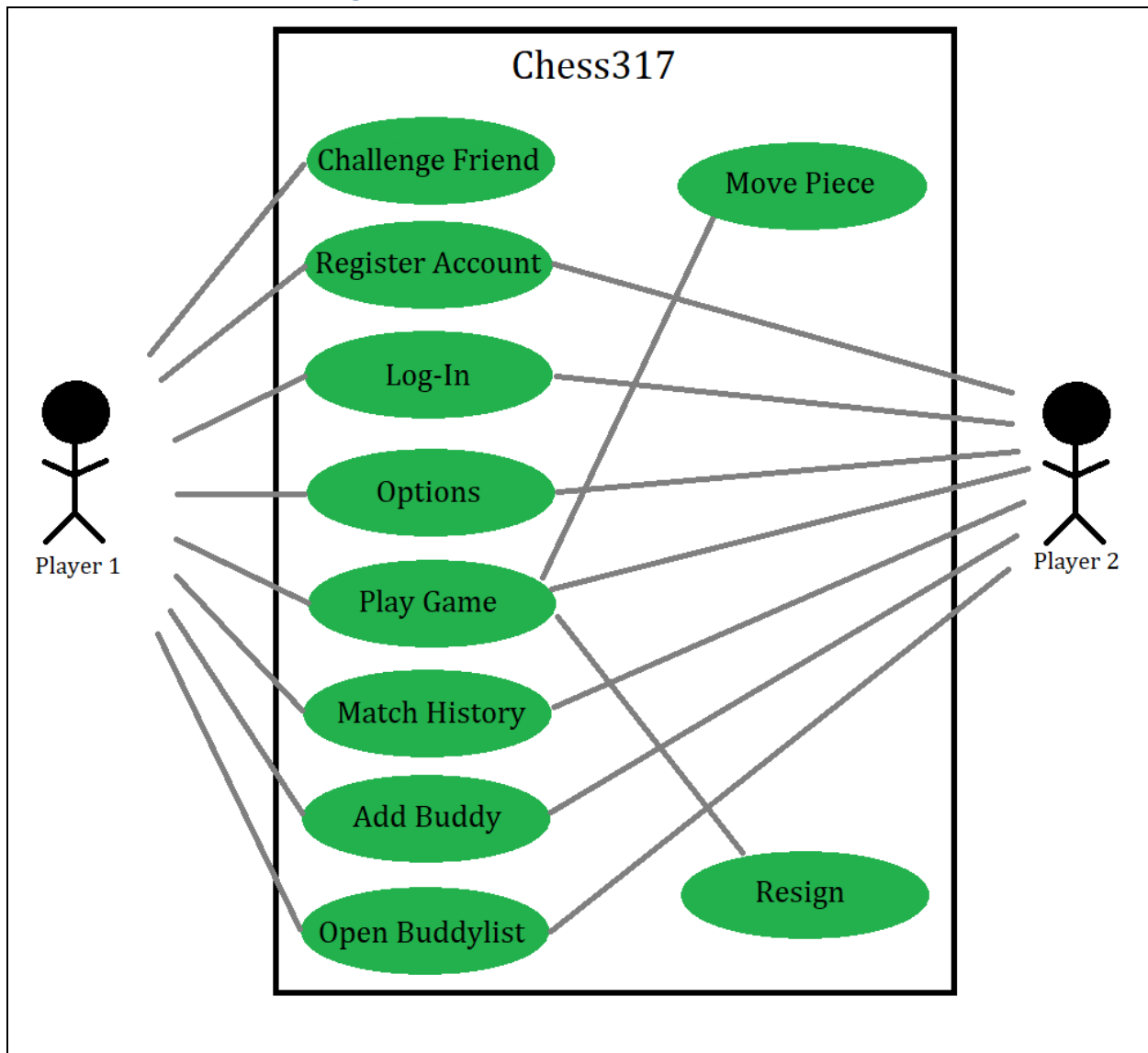
#### Brief Description

The **Resign** use case is available once the Player is in a match. It allows the player to forfeit the match, causing an instant loss.

#### Step-by-Step Description

1. Click on the Resign button.
2. Click 'Yes' when the confirmation box pops up.

### 3.1.2 Use Case Diagram



## 3.2 External Interface Requirements

Chess317 will use a graphical user interface consisting of buttons that allow the user to navigate menus. The software will be developed on 1920x1080p resolution screens, but also supports other resolutions as well.

Chess317 can run on Windows, Mac, and Linux, as long as Java is installed, on any desktop or laptop computer. Chess317 will not be supported for tablets or mobile devices.

### 3.3 System Features

Chess317 will feature basic chess functionalities such as:

- Specific piece movement patterns
- Capturing
- Castling
- Promotions
- En passant
- Check and checkmate

The extra functionalities include:

- Recorded match histories
- Account creation
- Options feature to customize the game experience
- Both online and offline play
- Buddylist feature for online matches

### 3.4 Nonfunctional Requirements

- Must be able to function without an internet connection
- The game pieces must move in their specified pattern
- The game should be compatible with Windows and Mac operating systems
- The user interface should be clean and simple to understand