

# Software Design Document

## Networked Chess

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February 27th 2016  
Revision 1

Revision History:

Date	Description	Revision	Editor
2/27/16	Initial Version	1.0	Tomer,Kelly,Alex, Matt

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# 1 Introduction

## 1.1 Purpose

The purpose of this document is to describe the implementation of a networked chess game described in the Software Requirement Specification. This networked chess game is designed to allow 2 people from anywhere play chess over a network.

## 1.2 Scope

This document describes the implementation details of a networked chess program. The software will consist of three major parts. Firstly, the software will emulate and display a game of chess. Secondly, the software will allow player to connect with another user to play against. Thirdly, the user will be able to interact with their game pieces as if they were playing a real game of chess.

# 2 Design Overview

## 2.1 Description of Problem

Usually Chess is played with physical pieces playing an opponent in the same room. this is the time of the past. with increasing technology and access to the internet people want more ways to play regular games without having to be in the same place. This networked chess program solves this problem by allowing users anywhere in the world to run a program and play chess against anyone else.

## 2.2 Technologies Used

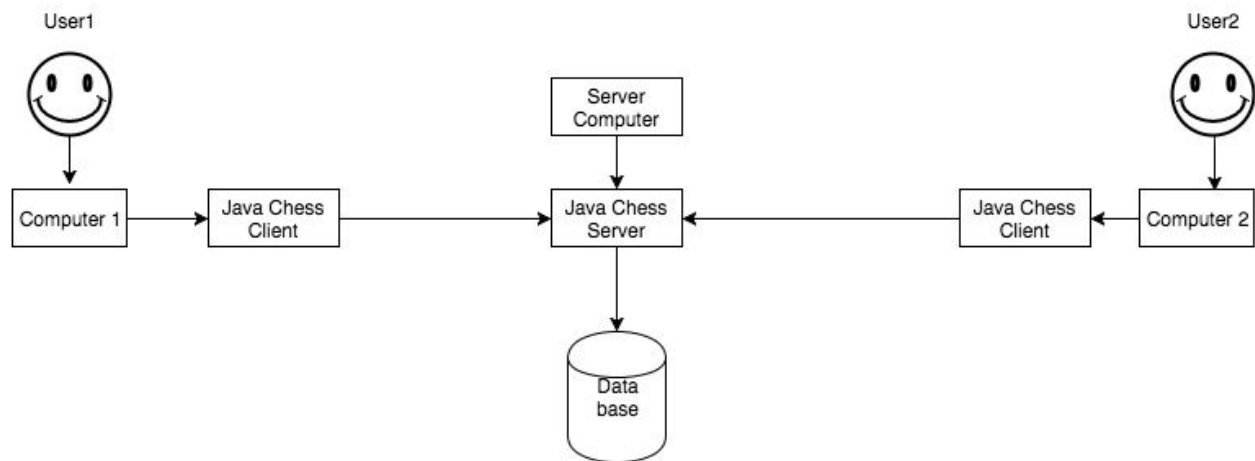
This networked chess game will be written in Java. We have decided to use Java since it is cross platform so anyone will be able to play regardless of their pc operating system. The input will be from a keyboard and mouse and connect to a server using a regular network connecting. The output will be displayed on the screen and rendered using the Java swing gui library.

## 2.3 System Architecture

Figure 1 depicts a high level architecture of the program. The system will be constructed from a few different components

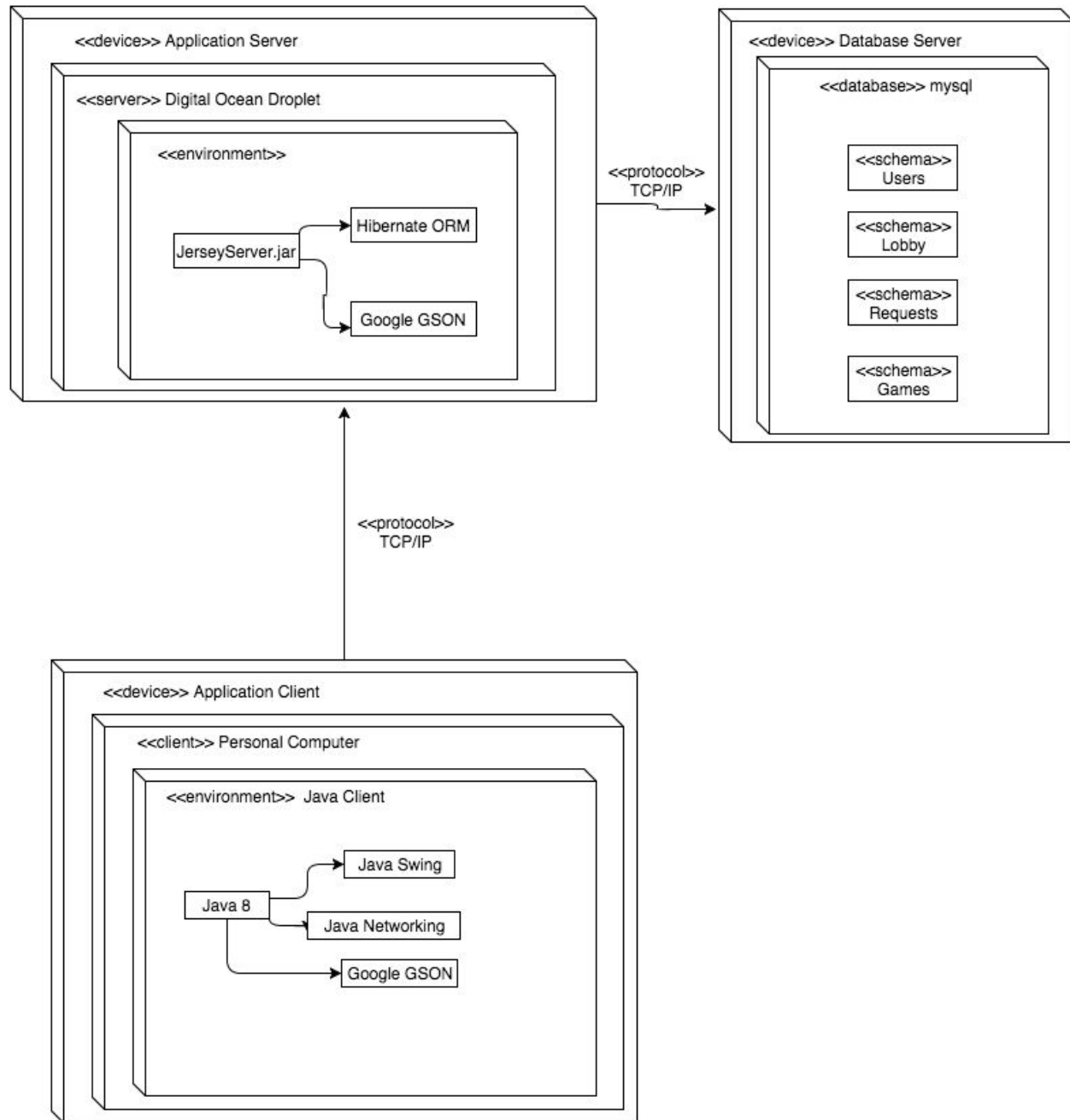
- **User** - the users who will be playing chess against another user
- **Chess Interface** - The program the user will be running on his computer that he will play chess through
- **Chess Server** - A server running a cloud computer where the Chess program will connect to to play chess with another chess program

### 2.3.1 Diagram



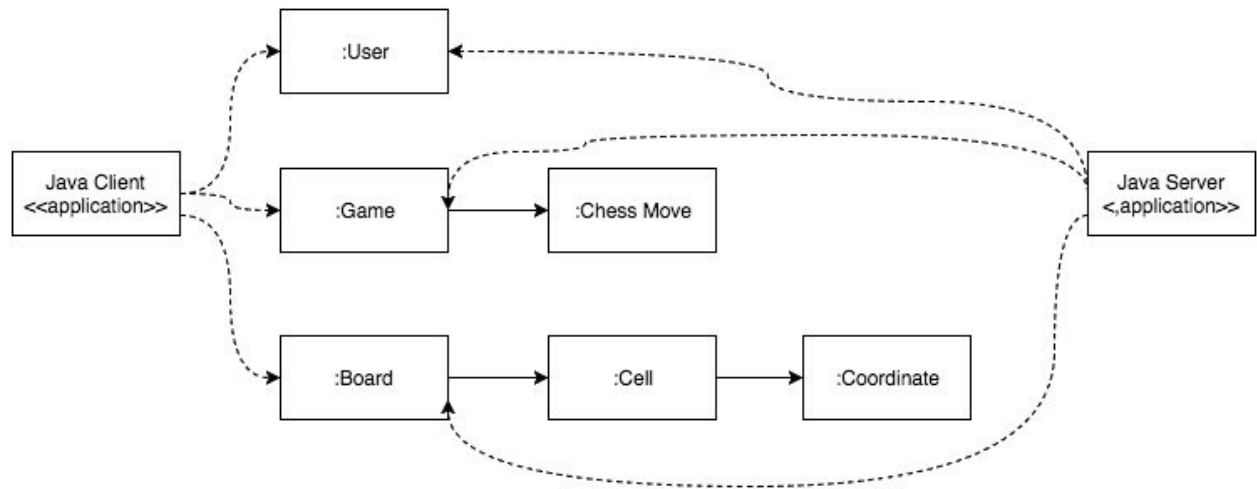
## 3 Deployment Diagram

### 3.1 Diagram



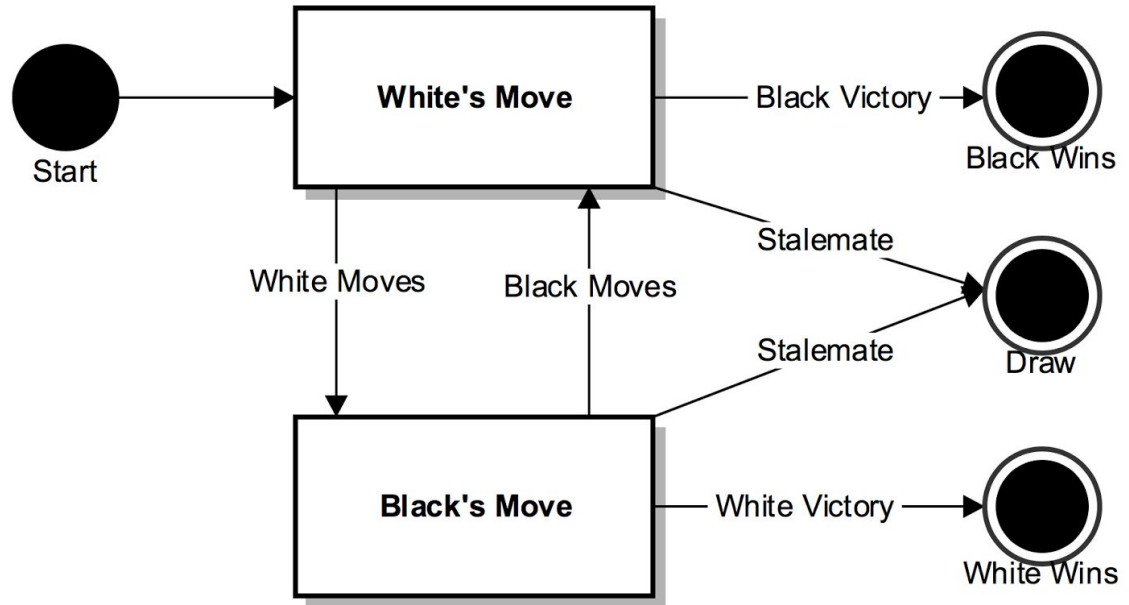
## 4 Component Diagram

### 4.1 Diagram



## 5 State Diagram

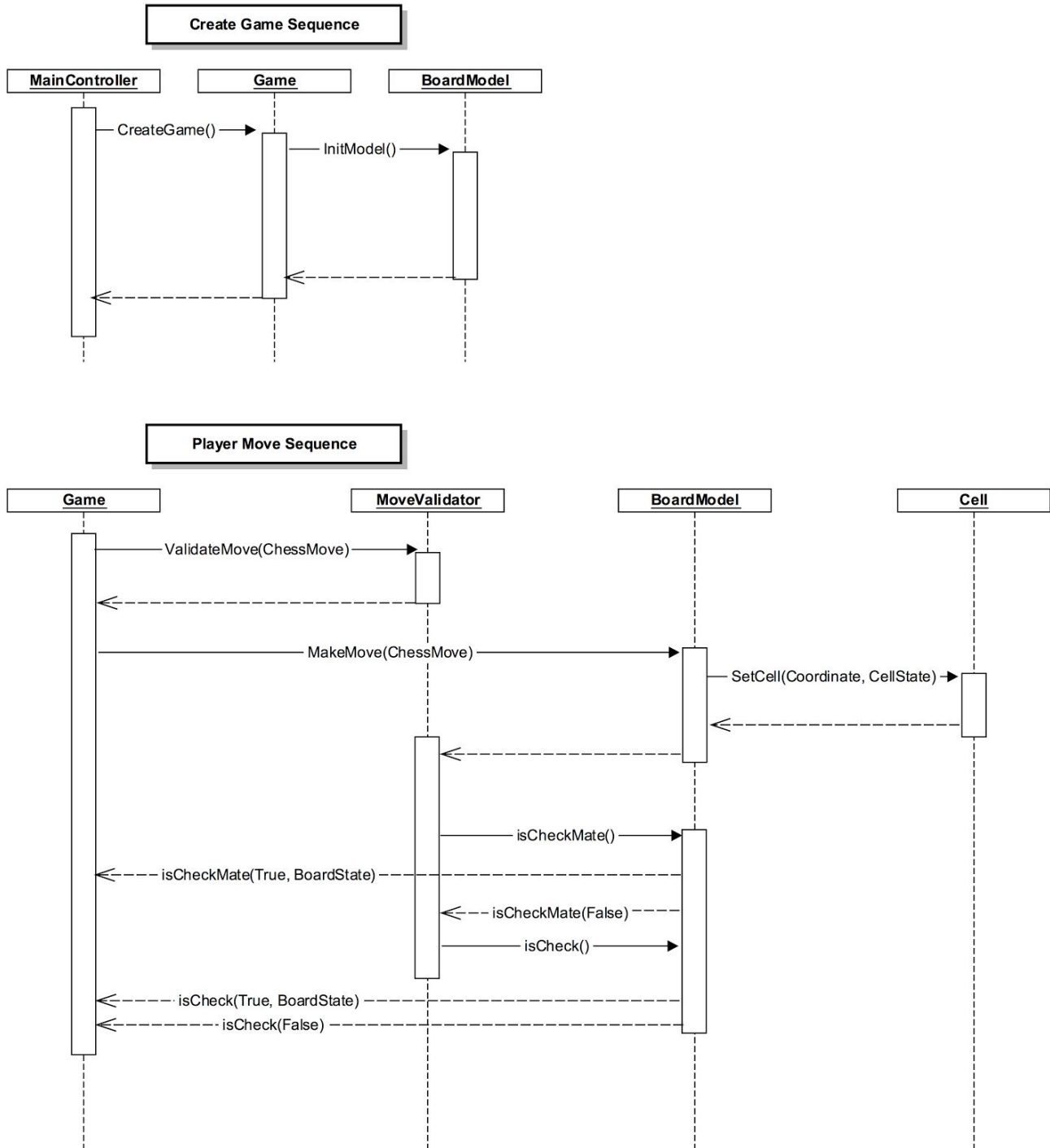
### 5.1 Diagram





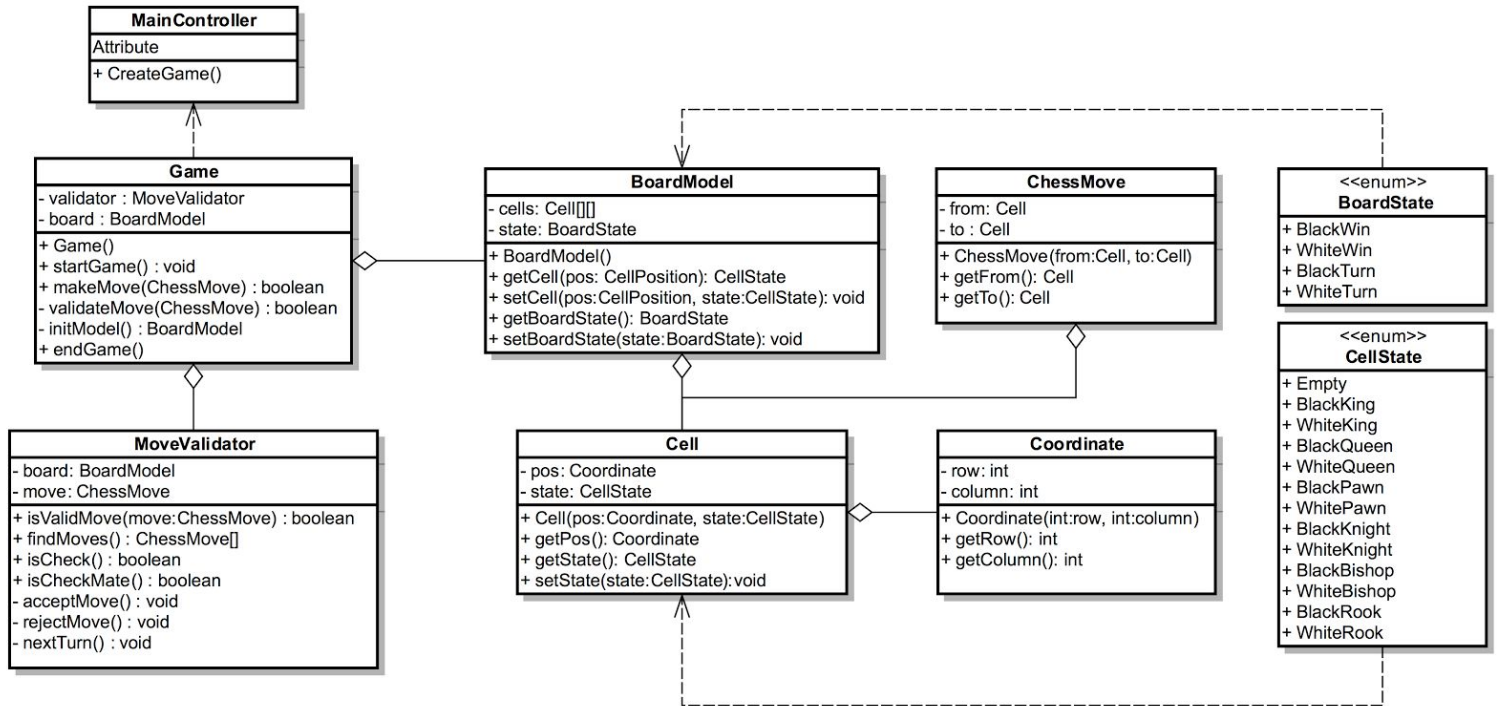
# 6 Sequence Diagram

## 6.1 Diagram



# 7 UML Class Diagram

## 7.1 Client Diagram



## 7.2 Server Diagram

