# Portal Chess

Strike Team Java

### Introduction to XGame



Play Portal Chess online



Challenge other users



Create an account



View your match history

#### What is Portal Chess?

- Has the same base rules as ordinary chess
- Each player has two portal pieces they start with, can place them anywhere on the fourth row at the start of the game
- Player can only move their own colored portal, same moves as a King
- If a piece lands on a portal, then it is teleported to the other portal of the same color unless it is blocked. Piece comes out of portal in same direction it moved into the portal.

### High Level Project Design

User Interface (React.js)

Server (Java)

Database

UI will be built with React and will send API requests to the JAVA server to obtain information to be displayed to the user

Restful API that will provide all the information about the application to the frontend. All logic for gameplay will be here.

Database will store information about games, invitation, and users

### **User Stories**

#### **Must Have**

- Create an account
  - $\circ$  Register email
  - o Create username
- Log in to the account
- Create match
- Invite opponents to the match
- Start game when the first opponent accepts the invitation
- Play Portal Chess

#### **Should Have**

- Send invites to multiple users
- Accept/ reject invites from another user
- Close and return to matches at will
- Know when a game is over and who has won

### User Stories (cont.)

#### **Could Have**

- Be able to log out
- Unregister account
- Switch between multiple games at once
- Abandon a game at any time

#### **Would Have**

- View game history- Players, start and end date/times, winner/loser of the match, whether a game was abandoned
- Be able to tell whose turn it is

### Account • Player Create account Login to account Log out of account Unregister account

Player	
<ul><li>Accept invites</li><li>Reject invites</li><li>Notify inviter if invite is rejected</li></ul>	Account     MatchFacilitator

	Profile	
П	Contains win/loss history from matches     Contains abandoned match history	

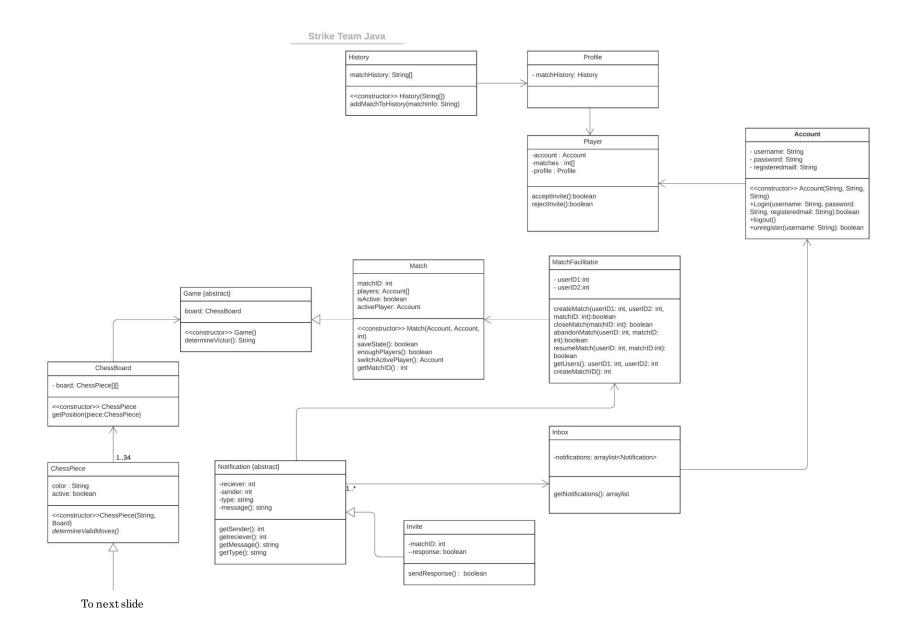
	MatchFacilitator	
	Create match	• Player
	Close match Abandon match	
	Resume saved match	
•	Switch between matches	

Match	Game	
<ul> <li>Save state of the match in progress</li> <li>Start when enough players join</li> <li>Determine if game is over</li> <li>Reflect victor of game determined by Game (if applicable)</li> <li>Keep track of active player</li> </ul>	MatchFacilitator	
History		
Stores match history	• Profile	
Abstract Game Match		
Determine victor (if applicable)	• Match	
Inbox		
Contains notifications		
Notification Invite		
Be sent to player's inbox	• Player	
Abstract Notification	Invite	
Be sent to player's inbox	Player	

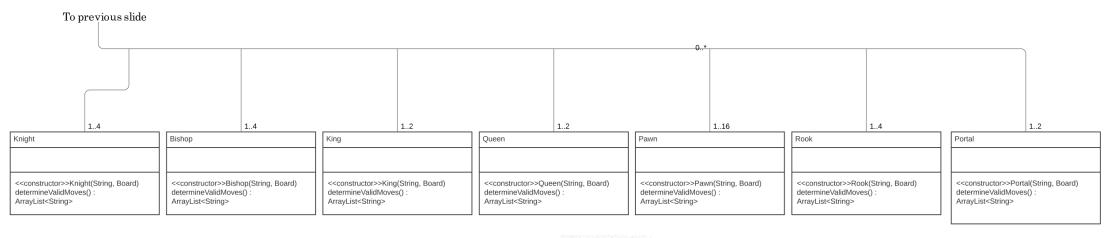
ChessBoard		
Show location of each piece		ChessPiece
Abstract	ChessPiece Knight, Pawn,	King, Queen, Rook, Bishop, Portal
• Store color		<ul> <li>Knight</li> <li>Pawn</li> <li>King</li> <li>Queen</li> <li>Rook</li> <li>Bishop</li> <li>Portal</li> </ul>
Chess <b>Knight</b>		ChessPiece
Determine valid moves		
ChessPiec Pawn		
Determine valid moves		
	Bishop	ChessPiece
Determine valid moves		

King	ChessPiece
Determine valid moves	
Queen	ChessPiece
Determine valid moves	
Rook	ChessPiece
Determine valid moves	
Portal	ChessPiece
Determine valid moves	

# Class Diagram

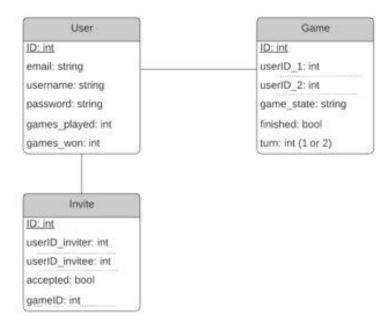


# Class Diagram

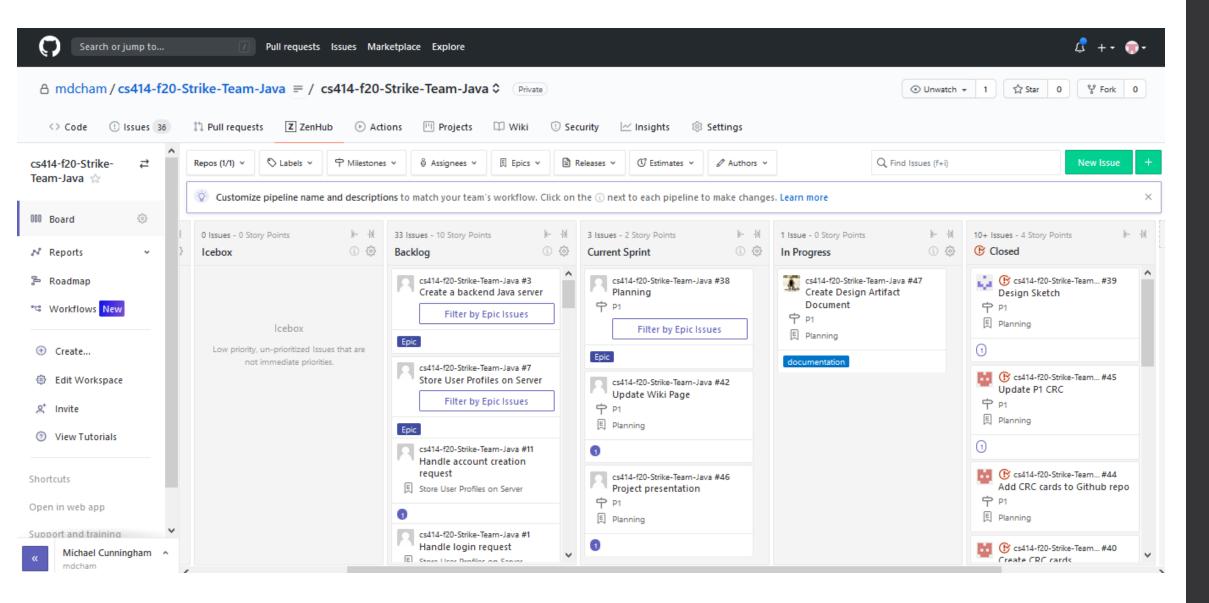


#### Strike Team Java

#### Database Diagram



#### Kanban Board



#### Scrum results

- 09/10/2020 Setup Github repo, created epics/tasks in Zenhub
- 09/14/2020 Created questions and scheduled a meeting with PO
- 09/17/2020 Meeting with PO, reworked user stories gave each of them a priority, got answers to questions
- 09/22/2020 Created CRC cards for all the planned classes, closed issue #40
- 09/22/2020 Created wiki page on Github, started uploading documents to Github, started on UML diagram
- 09/23/2020 Finalized UML diagram, discussed presentation possibilities
- 09/24/2020 Created PowerPoint presentation, set video recording time for everyone

## Going Forward

- Setup rules for following proper Git etiquette
  - o Reviewing other users' code
  - Never updating Master directly
- Setting up a Maven build for server
- Create a React app for the client