Spaghetti-Coders Jungle Sprint 3

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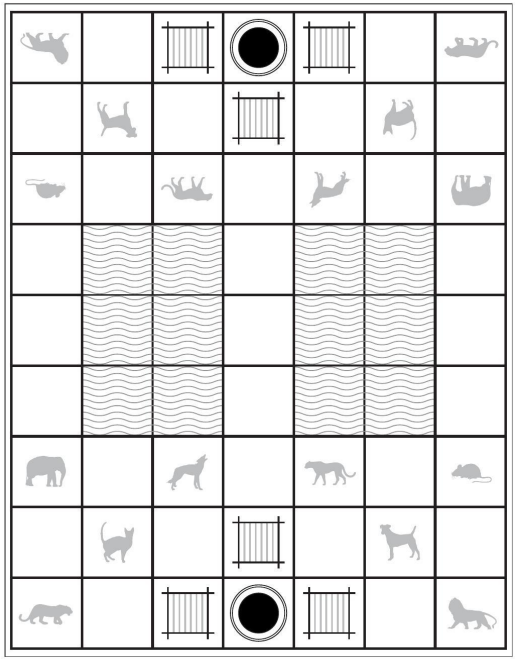
Jungle Refresher

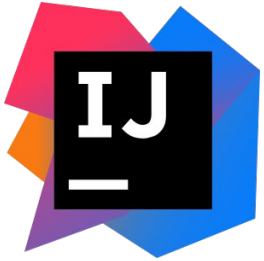
- 8 animals per player, ranked from 1 to 8: Rat, Cat, Wolf, Dog, Panther, Tiger, Lion, Elephant
- **Every piece** can move one space *horizontally* or *vertically* to an **open land space** or a **‘weaker’ enemy piece**. Pieces can’t move into their own den.
- Certain pieces have special moves:
  - **Rat** can move freely in water
  - **Rat** can capture **Elephant** (but not from a water space)
  - **Lion** and **Tiger** (Big Cats) can jump over water *horizontally* or *vertically*
- When a piece moves onto an enemy **trap**, it is vulnerable to being captured by **any** enemy piece
- Winning:
  - Player moves a piece into the opponent’s den
  - Player captures all of the opponent’s pieces

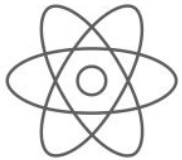


Processes

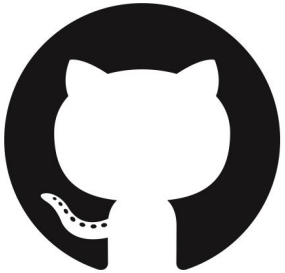
- The team utilized mainly Agile methodologies to complete this project, using:
  - Incremental Development
  - Paired-Programming
  - Agile-style meetings:
    - Sprint Planning Sessions
    - Bi-weekly Standups
    - Sprint Reviews and Retrospectives

Tools





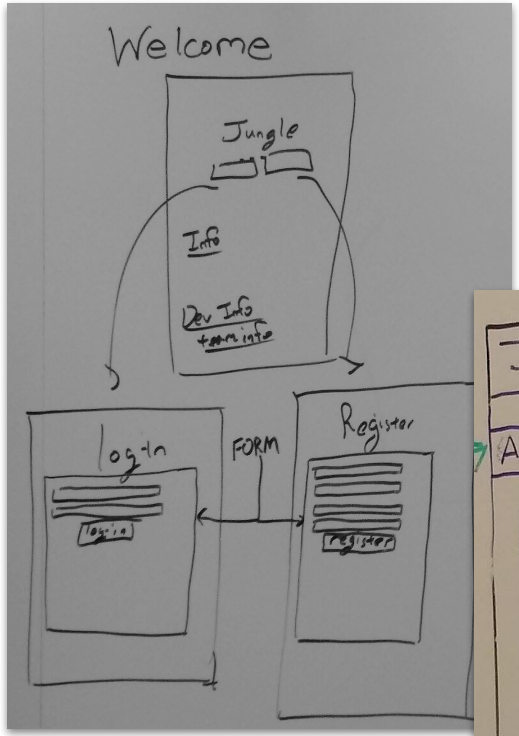
reactstrap



Design Decisions

- Welcome Page
- Allow user to either make a new account or use their existing account

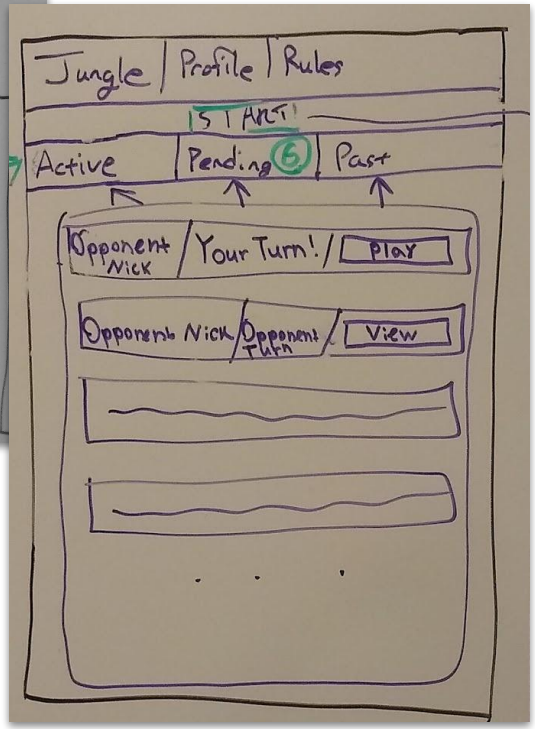
- Main Page
  - Tabs for Home, Profile, & Rules
  - Three types of games contained in inner tabs: Active, Pending, & Finished
  - Invite Button: by nickname or random
- Database
  - All games and players stored in SQL database to allow end-to end communication



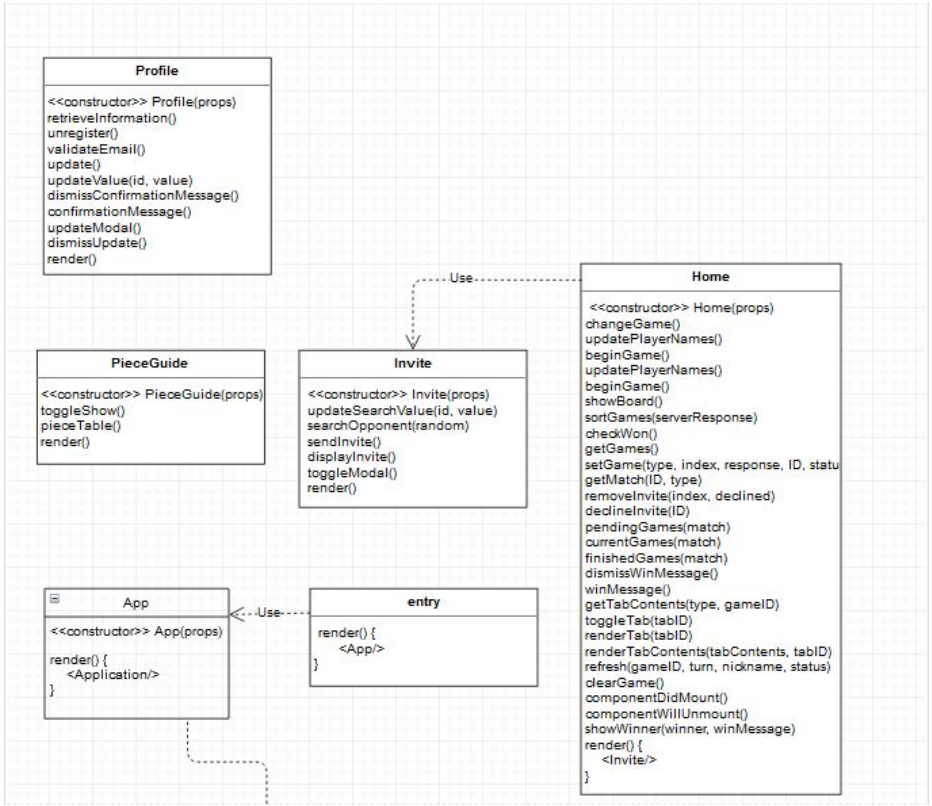
Composite Design Pattern: **Pieces**

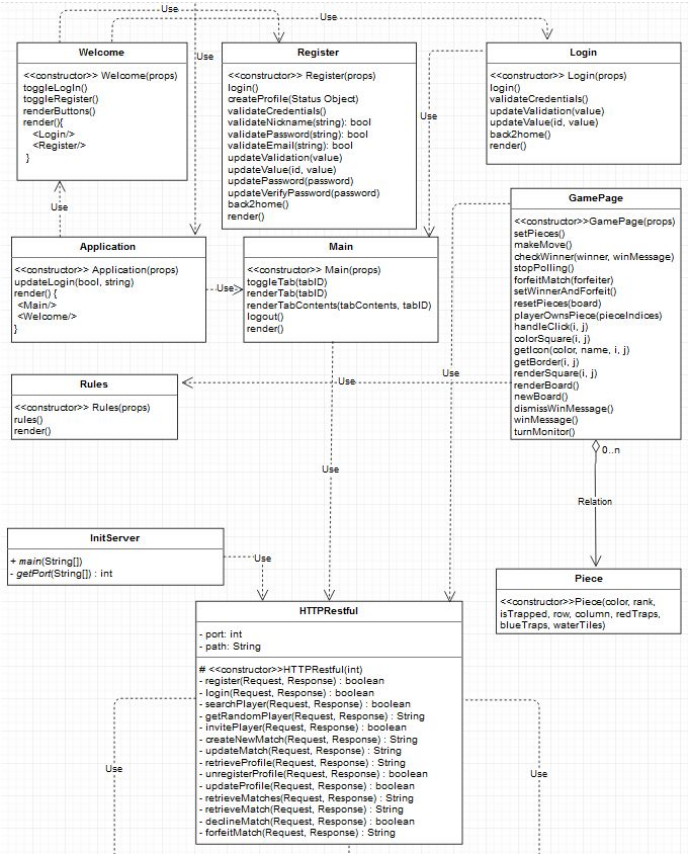
Piece: made up of Rat, Cat, BigCat, etc.

BigCat: made up of Lion, Tiger

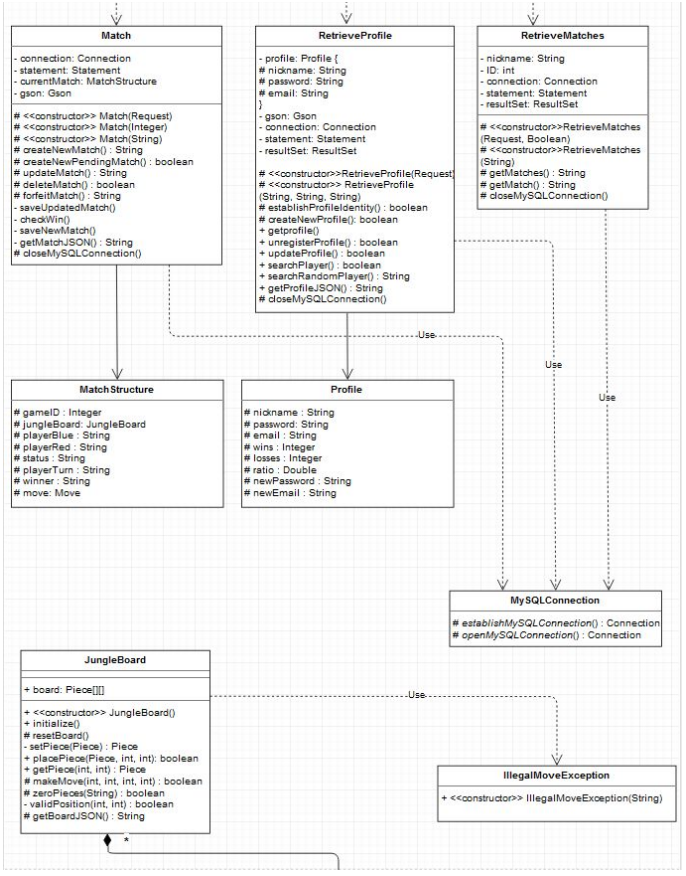


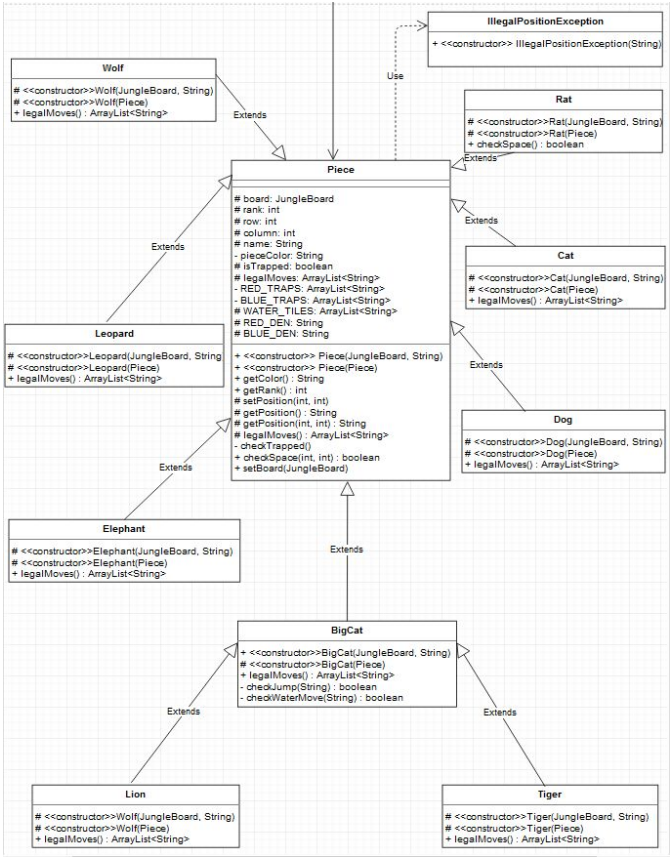
Class Diagram (Client Side)





Class Diagram (Server Side)





Traceability Link Matrix - server

SERVER	InitServer	HTTPRestful	MySQLConnection	RetrieveProfile	RetrieveMatches	JungleBoard	Match	MatchStructure	Move	IllegalMoveException	IllegalPositionException	Piece	BigCat
Register	X	X	X	X									
Login	X	X	X	X									
Play Jungle	X	X	X		X	X	X	X	X	X	X	X	X
Invite	X	X	X				X						
Accept Invite	X	X											
Notifications	X	X											
Decline Invite	X	X											
View Current Games	X	X	X										
View Games History	X	X	X				X	X					
Suspend Game	X	X			X		X	X	X				
Resume Active Game	X	X	X		X		X	X					
Play Multiple Games	X	X	X		X								
View Game Rules	X	X											
Quit/Forfeit Current Game	X	X	X		X		X	X					
View Profile	X	X	X	X									
Logout	X	X											
Unregister	X	X	X	X									
View Board	X	X	X		X								

Traceability Link Matrix - client

CLIENT	Welcome	Register	Login	Home	Main	Invite	GamePage	Rules	PieceGuide	Profile
Register	X	X								
Login	X		X							
Play Jungle							X		X	
Invite						X				X
Accept Invite				X		X				
Notifications						X				
Decline Invite				X		X				
View Current Games				X			X			
View Games History				X			X			
Suspend Game				X						
Resume Active Game				X			X			
Play Multiple Games				X			X			
View Game Rules					X			X	X	
Quit/Forfeit Current Game										
View Profile					X					X
Logout					X					
Unregister										X
View Board							X			

Sprint Retrospective

- Several official scrum meetings were held
  - Sprint planning meeting to divide User-Stories
  - Weekly stand-ups to review our completed tasks
  - Several reviews with the Product Owner to review the completed User-Stories and the website’s UI
- Improvements from last Sprint
  - Product Owner was satisfied with the website’s design
  - Overall better communication/coordination between team members
  - More paired programming to complete tasks

Demo