



Software Design Document

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PROJECT PLAN VERSION CONTROL

Version	Date	Author	Message
1.00	07/20/2013	Shan Sabri	Document and template initialization
1.01	07/24/2013	Shan Sabri	Dynamic model layout creation for major scenarios
1.01	07/24/2013	Hartanto Thio	Dynamic model layout creation for major scenarios
1.01	07/24/2013	Davis Gigogne	Dynamic model layout creation for major scenarios
1.02	07/24/2013	Hartanto Thio	Structure front-end class diagram
1.03	07/25/2013	Davis Gigogne	UML diagram (front-end, back-end, and card) additions
1.04	07/26/2013	Davis Gigogne	Sequence diagram (create game) addition
1.05	07/26/2013	Shan Sabri	Sequence diagram (player suggests) addition
1.06	07/26/2013	Hartanto Thio	Sequence diagram (player quits) addition
1.07	07/26/2013	Hartanto Thio	Sequence diagram (player changes settings) addition
1.08	07/27/2013	Shan Sabri	Sequence diagram (player accuses) addition
1.09	07/27/2013	Hartanto Thio	Sequence diagram (player moves) addition

INTRODUCTION

This document's purpose is to serve as the software design document (SDD) for Team Aware_ness' implementation of Project Clue-less' target system. The SDD will address the system overview in terms of software architecture with corresponding class and activity diagrams.

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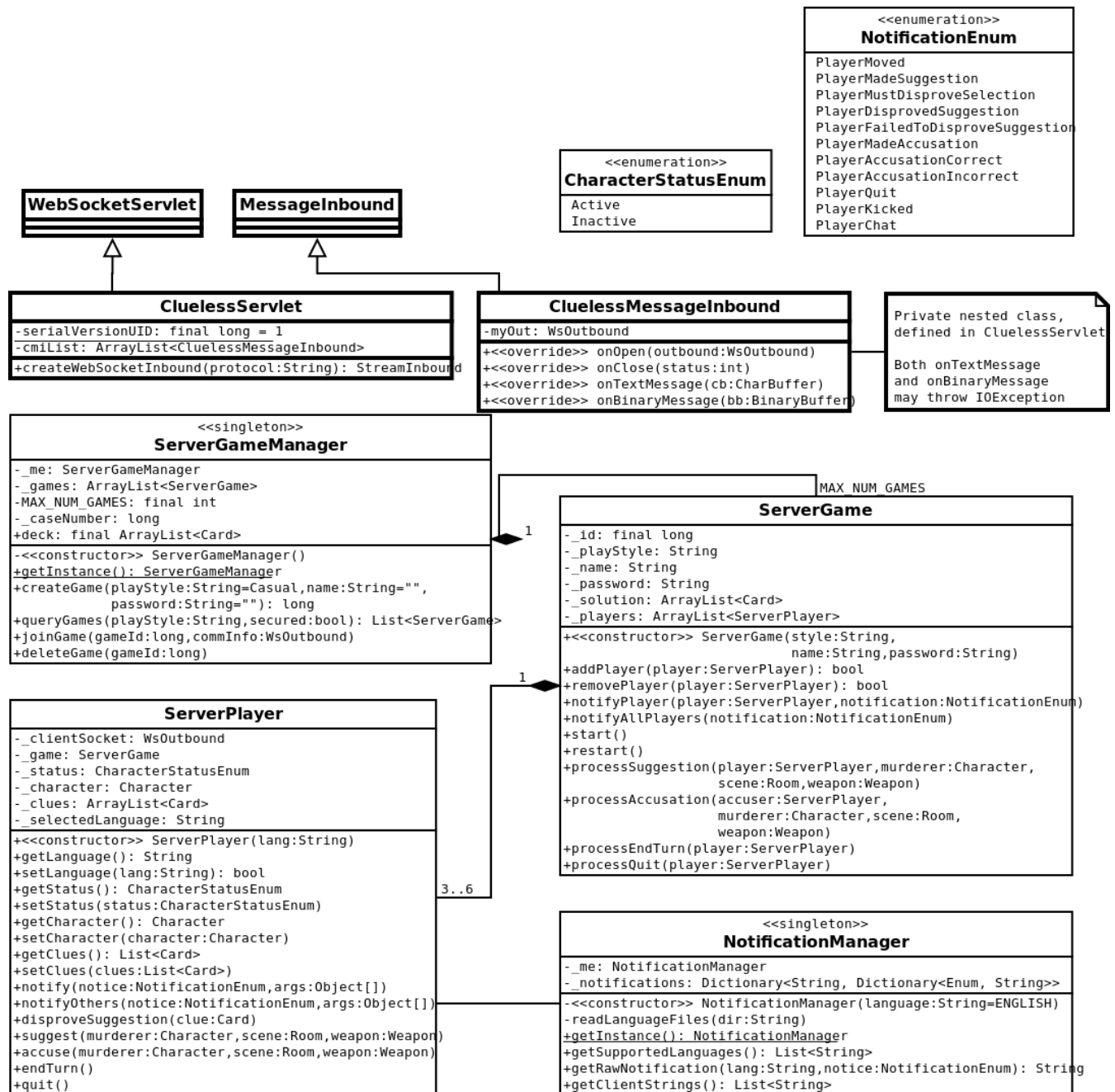
BACK-END UML CLASS DIAGRAM

Back-End Classes:

- ServerPlayer
- ServerGame
- ServerGameManager
- NotificationManager

Server interface classes:

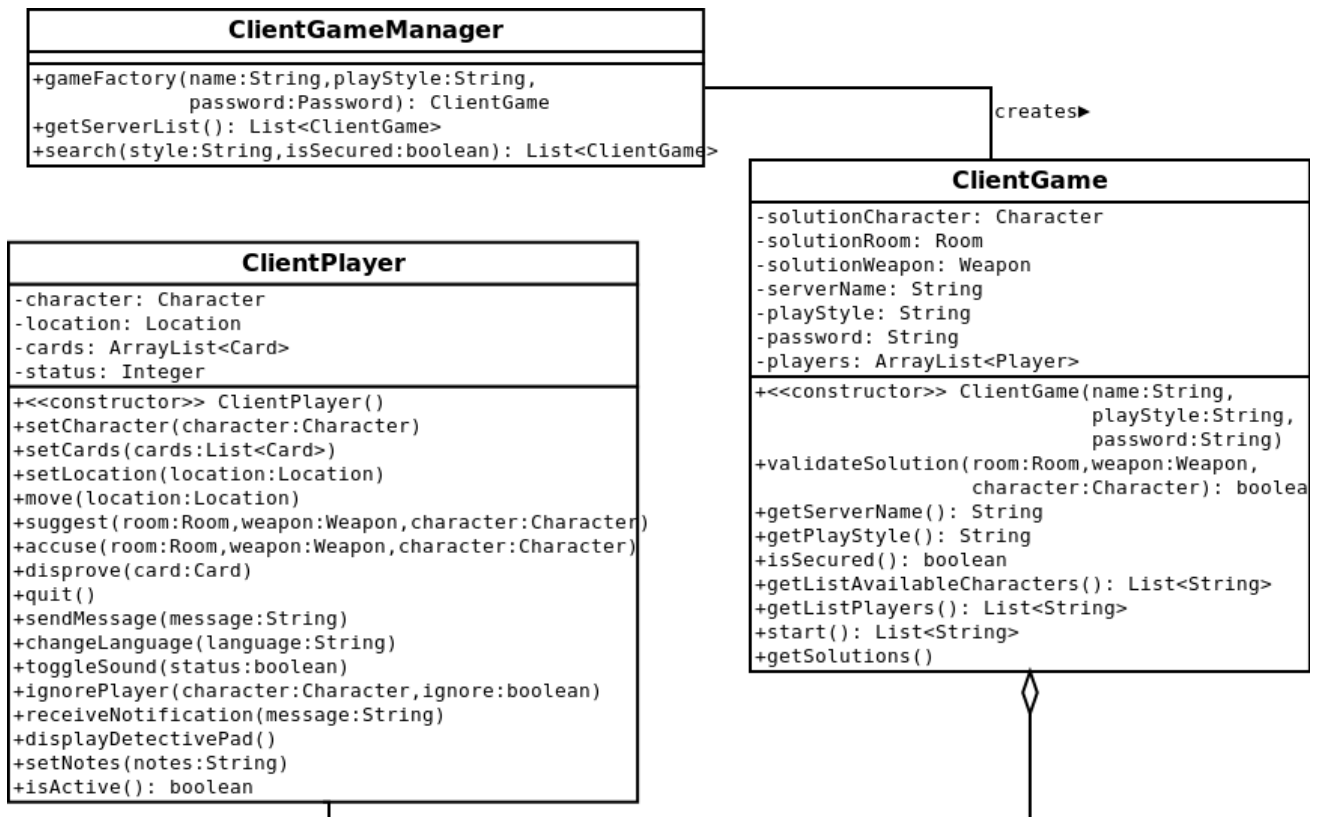
- CluelessServlet (extends WebSocketServlet)
- CluelessMessageInbound (extends MessageInbound)



FRONT-END UML CLASS DIAGRAM

Front-End Classes:

- ClientGameManager
- ClientGame
- ClientPlayer

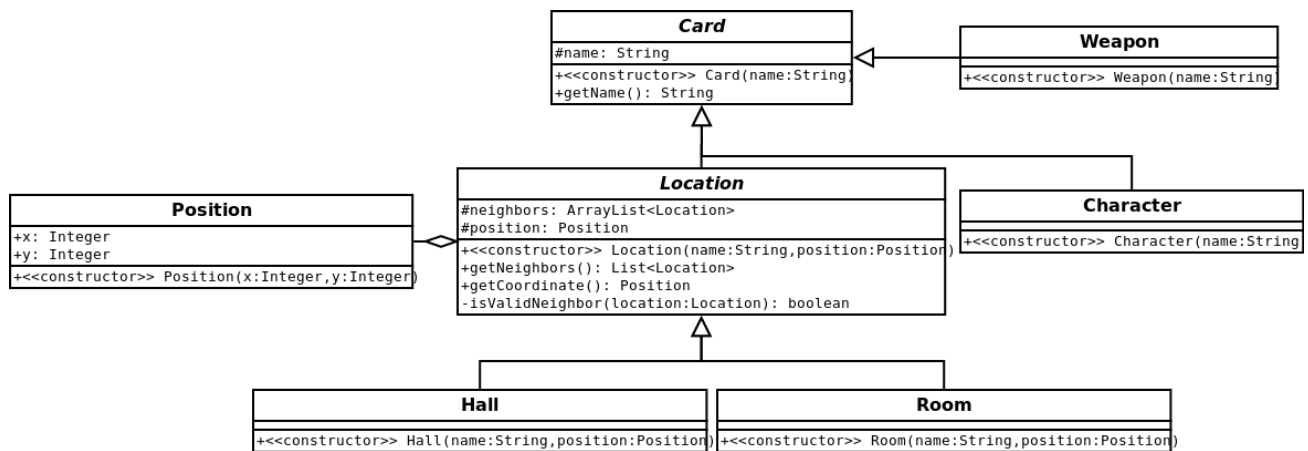


CARD UML CLASS DIAGRAM

Card is an abstract class.

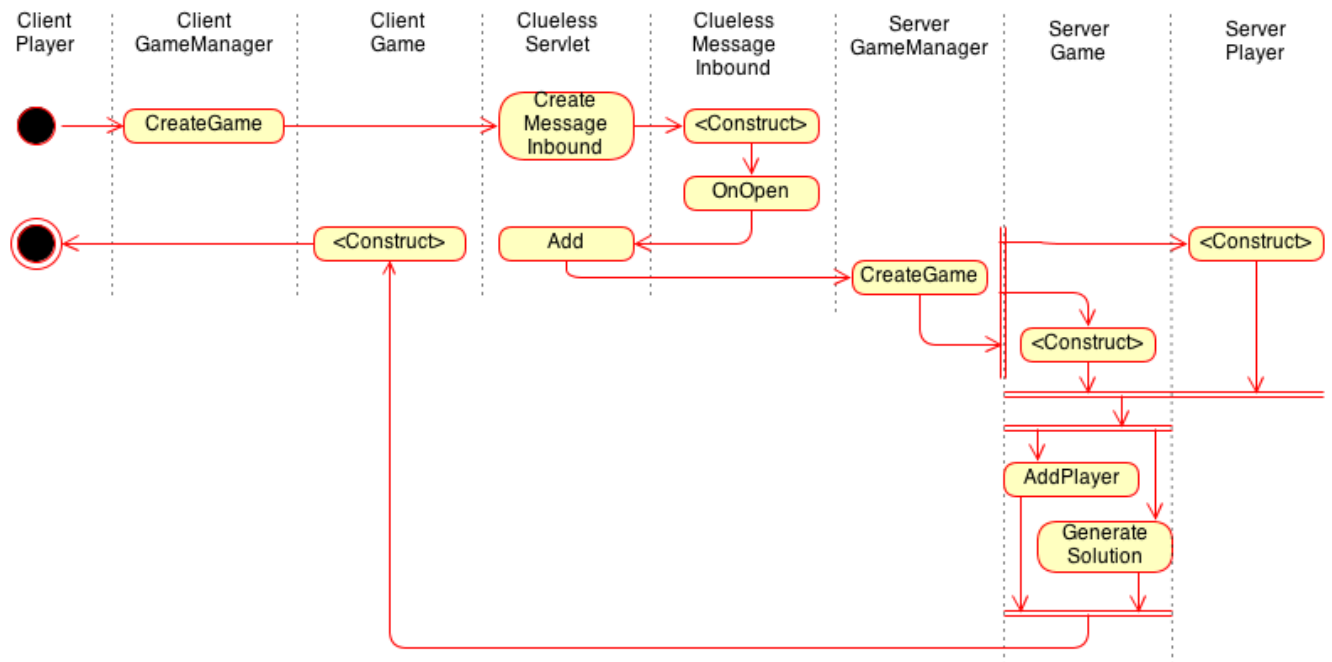
Card Classes:

- Location (extends Card)
- Weapon (extends Card)
- Character (extends Card)
- Room (extends Location)
- Hall (extends Location)
- Position



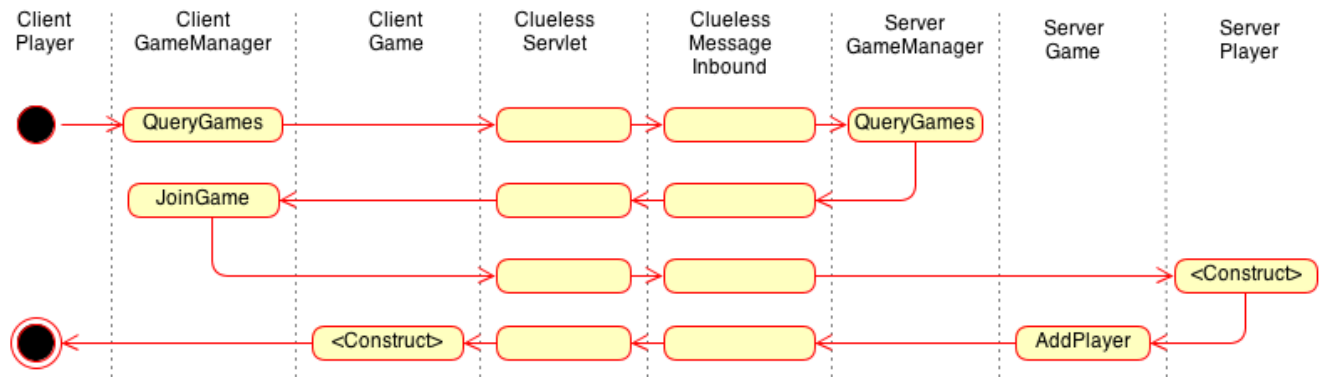
ACTIVITY DIAGRAM – CREATE GAME

1. ClientPlayer sends creation params to CluelessServlet
2. CluelessServlet utilizes CluelessMessageInbound
3. CluelessMessageInbound passes params to GamesManager
4. GamesManager constructs instance of Game
5. GamesManager constructs instance of ServerPlayer for calling ClientPlayer
6. GamesManager associates new ServerPlayer with new Game
7. Returns to CluelessMessageInbound, which returns boolean to ClientPlayer
8. ClientPlayer's display changes appropriately



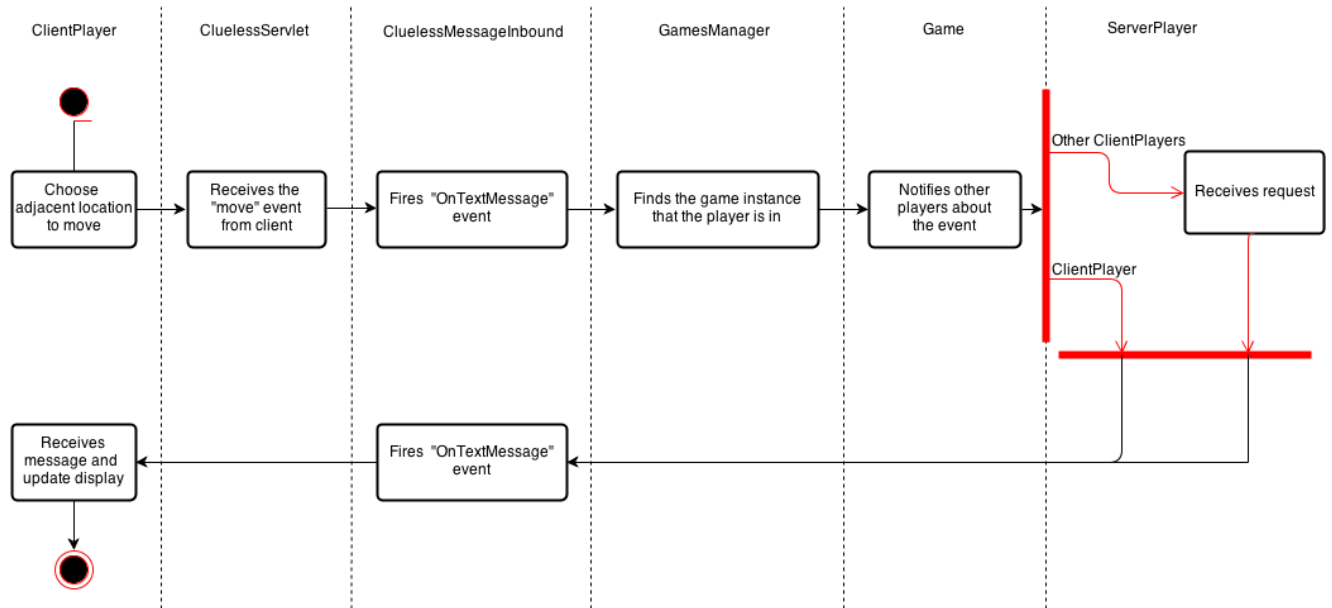
ACTIVITY DIAGRAM – JOIN GAME

1. ClientPlayer specifies search criteria to CluelessServlet
2. CluelessServlet utilizes CluelessMessageInbound
3. CluelessMessageInbound passes Params to GamesManager
4. GamesManager returns list of matching games
5. ClientPlayer picks game to join
6. Flow returns to GamesManager
7. GamesManager returns boolean, ClientPlayer display changes appropriately



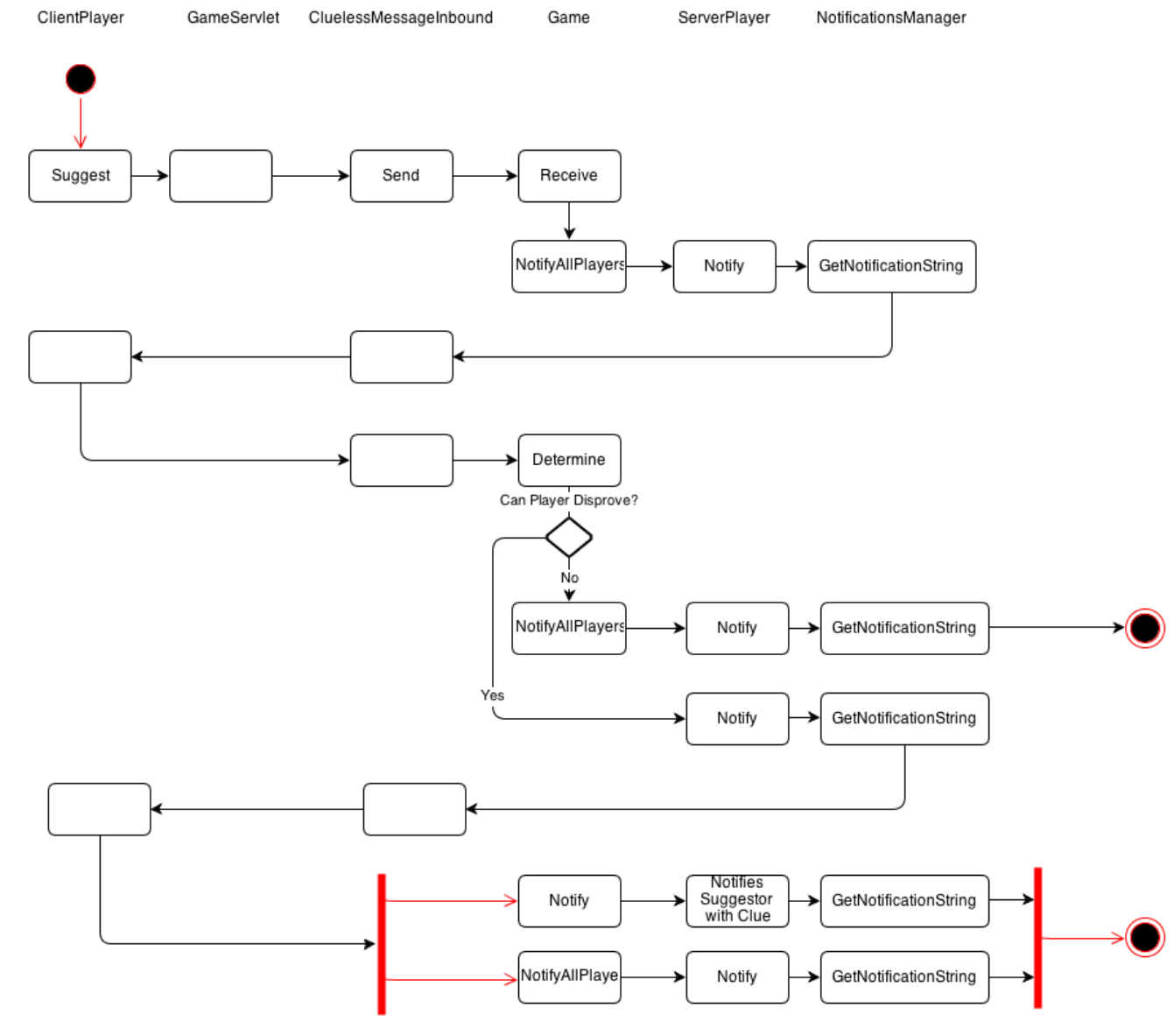
ACTIVITY DIAGRAM – PLAYER MOVES

1. ClientPlayer sends notice to Game
2. Game notifies all players
3. Each Player's display and state updates



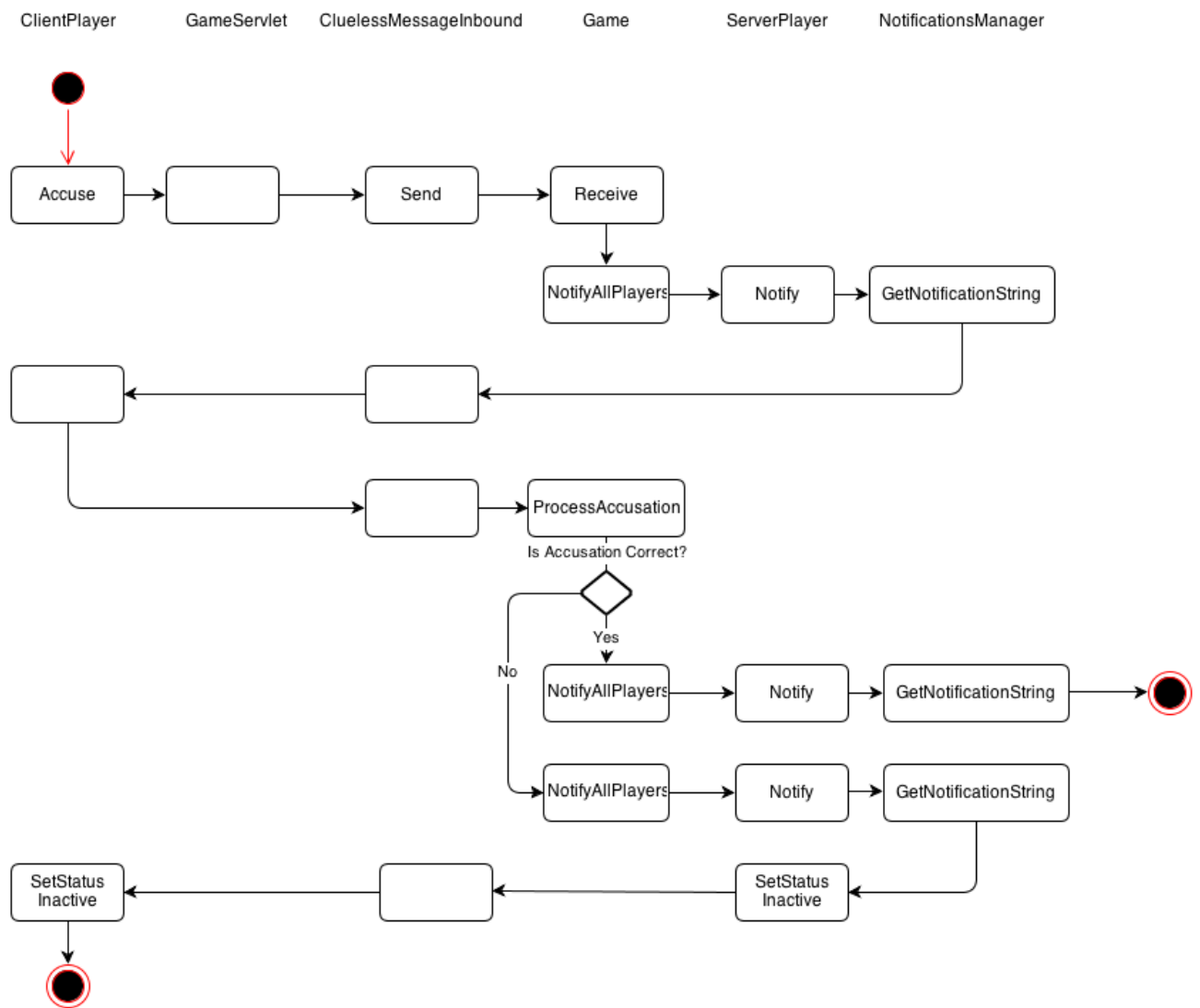
ACTIVITY DIAGRAM – PLAYER SUGGESTS

- 1) ClientPlayer sends notice to Game
- 2) Game notifies all players
- 3) In turn order, Game determines player who can disprove
- 4) If no players can disprove
 - a) Game notifies all player that none could disprove
- 5) Else
 - a) Game notifies first player that can disprove
 - b) Player sends notice to Game what clue they want to use
 - c) Game notifies suggestor with clue
 - d) Game notifies all players that <so and so's> suggestion was disproved



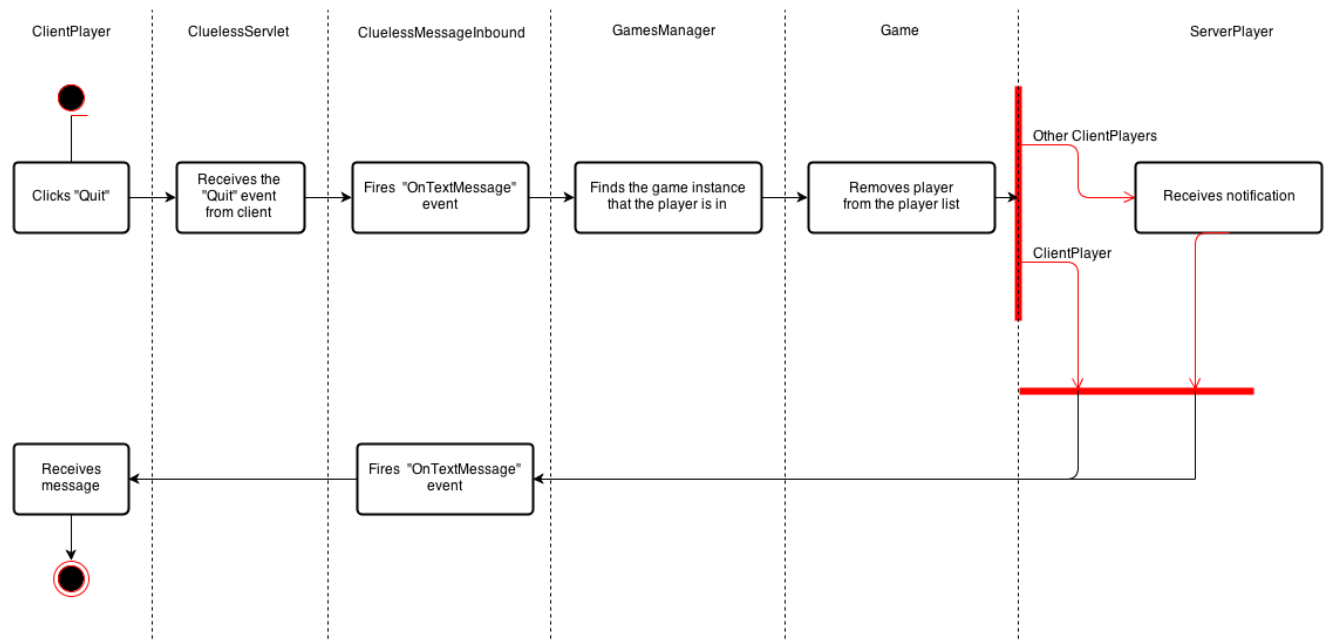
ACTIVITY DIAGRAM – PLAYER ACCUSES

- 1) ClientPlayer sends notice to Game
- 2) Game notifies all players
- 3) Game processes accusation
- 4) If accusation is correct
 - a) Game notified all players of the winning player
 - b) Game ends
- 5) Else
 - a) Game notifies all players that the accusation is incorrect
 - b) Player who accused becomes inactive
 - c) Game notifies ClientPlayer of inactive Player



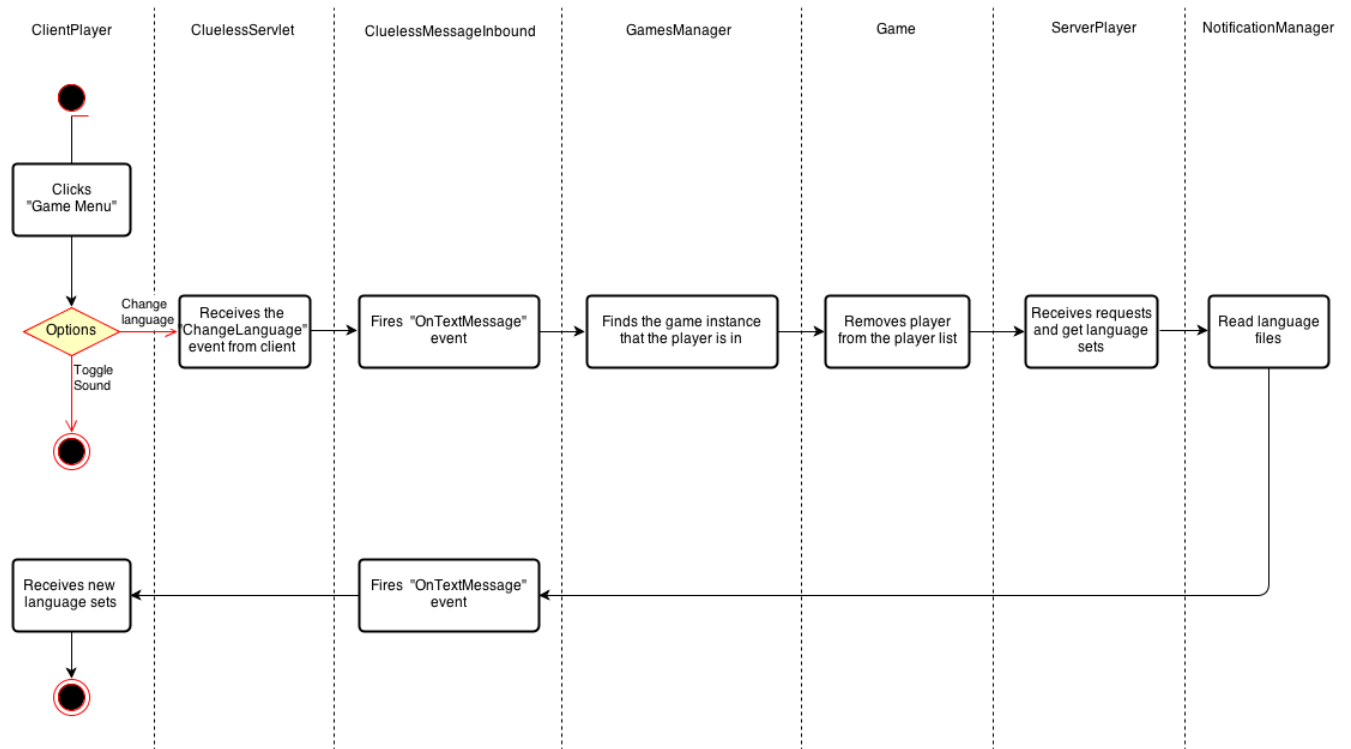
ACTIVITY DIAGRAM – PLAYER QUILTS

1. ClientPlayer sends notice to GameManager
2. GameManager notifies Game
3. Game notifies all ServerPlayer
4. Game removes player from itself
5. GameManager notifies ClientPlayer



ACTIVITY DIAGRAM – PLAYER CHANGES SETTINGS

- 1) Sound
 - a) ClientPlayer purely
- 2) Language
 - a) ClientPlayer sends notice to ServerPlayer
 - b) ServerPlayer changes language
 - c) ServerPlayer returns display “words” for ClientPlayer to display
 - d) All new notifications from server are in that language



DOCUMENT ACCEPTANCE

Member	Signature
Shan Sabri	<hr/>
Hartanto Thio	<hr/>
Davis Gigogne	<hr/>