Use Case : UC3.1 : Host Game
Characteristic information :

Goal in context :

A player decides to host a game in his local network, in reason to play with other players a scrabble game.

Scope :

Multiplayer game.

Level :

Sub-function.

Preconditions :

A game host opens a lobby in his local network by choosing the host game option in the multiplayer menu, while he has a connection with his local network.

Success end condition :

A full scrabble Game is played, with game passes of different players are exchanged through a staple network connection. Network information are displayed and own game statistics are saved. The network connection is closed after the game is finished.

Failed end condition : The local server crashes and no player interaction is provided.

Primary actors :

Game Host : Wants to host a game server in a local network, play Scrabble by himself and give other human players in the network the possibility to join a game. Wants to fill a game of maximum 4 players with computer controlled players if not enough human players occur until the game started. Wants to share game statistic. Wants to share messages with joined human players.

Human player : Wants to play a scrabble game in the local network and join a game hosted by an other player in reason to play against each other and saving his stats for future use. Wants to share messages between human players.

Trigger :

Player chose the ,,Host Game'' option in the multiplayer menu.

Main Success Scenario (or Basic Flow) :

1. A Human player decide to host a game in his network.
2. He get in the game lobby and starts a server in the network.
3. Other human players join the lobby and are shown in the lobby screen.
   - Step 3 will be repeated until a maximum of 4 players join the game.
4. The players will decide a play order.
5. The players will enter the game screen.
6. Include UC2:Play Scrabble
7. The game statistics are saved.
8. The players will enter the lobby screen again.
9. The final points of all players are shown and the winner are highlighted.
10. All players leaving the lobby screen and get to the menu screen.
11. The server connection will be closed by the game host.

Extensions (or alternative flows) :

a*. At any time : System fails :

1. The players get to the menu screen and the server connection will be closed. Game statistics are not saved because of unfinished game.

b*. At any time : Players send messages in chat.

1. Messages are send and displayed by all human players

c*. At any time : A player decides to leave.

1. The other players will be informed and the game goes on.

4-5a. A player lost connection

1. The player are replaced by a computer player by the server

1a. The game host has no access to the local network.

1. The host will be informed and manually leaves the lobby.

2a. The server port is occupied of an other member of the network

1. a next server port is used or the user enter one port manually.

3a. No human player join the network game.

1. The host manually leave the lobby and close the server

3b. The maximum of 4 human players are not reached.

1. The remaining amount of players are filled with computer controlled players

4a. The players cant decide a play order or cant unify.

1. The lobby join sequence will be set as game order.

9a. Players have the same number of gained points

1. The player with the better game sequence position will be preferred.

7a. Game statistics are received by clients and saved in the local database

10a. The players decide to play a second game.

1. The players get from the lobby screen to a other game screen.

Related Information :

Priority :

top.

Performance target :

No noticeable network delays or network crashes.

Super-ordinate use case :

UC3 : Play Network Game

Special Requirements :

1. The player maximum is 4 human players.
2. Missing human players are replaced with computer players.

Technology and data variations list :

4.7a. Computer players have two different difficulties.

2a. Games are usually hosted on an specific port known by all scrabble game instances.