Use case: Play multi-player game

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| Use Case Name | Play multi-player game |
| Scope | Plumbers on ICE Game App |
| Level | User goal |
| Primary Actors | First player  Second player |
| Stakeholders and Interests | - Players: Have the goal of reaching the end of the level first, before the other player, their opponent, is able to do so. |
| Preconditions | Both game clients have a connection to the server, and a multi-player game session between the two players has been initiated |
| Success Guarantee | Both players have a chance to reach the end of the level first, and once one of them does the match ends and the system records the results of the match. |
| Main Success Scenario | 1. Each player's character starts at the predefined starting point for the level.  2. As in single-player mode, each player has two basic actions available to him: Walk forward, and jump.  i. **Walk forward**: The player's character proceeds horizontally, to the right. If this input is held down, this action continues until it is released.  ii. **Jump**: The player's character 'jumps' in the upward direction and is pulled back down due to gravity.  iii. These two actions can be **combined** by using Jump while holding Walk forward. The character will leap upward while maintaining its horizontal velocity – allowing for the player to leap between platforms and over obstacles.  3. Each player navigates through the level by using appropriate actions while avoiding hazards.  4. One player succeeds in reaching the end of the level (before the other).  5. The system records some details of the match, including the identities of the two players, the level on which it was played, the winner, the number of times each player 'died', and the elapsed time from the start until the winning player finished.  6. An appropriate message is displayed to each player and results of the match are shown. |
| Extensions | 3a. A player allows his character to come into contact with an 'enemy' or other hazard, or the character falls to the bottom edge of the play area.  i. The character 'dies' and is placed back at the level's starting point. |
| Special Requirements |  |
| Technology and Data Variations List |  |
| Frequency of Occurrence | High |
| Miscellaneous |  |