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| 1. **Summary Data** | |
| **Team Number** | 15 |
| **Sprint Technical Lead(s)** | Thomas Senyah |
| **Sprint Start Date** | 12/03/20 |
| **Sprint End Date** | 26/03/20 |

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| 1. **Individual Key Contributions** | |
| **Team Member** | **Key Contribution(s)** |
| Thomas Senyah | As the team member in charge of overseeing the programming component of the project, Thomas was responsible for developing a “Player” class which would deal with the functionalities associated with each player in the game. Thomas also developed the dice rolling class and the Token class. |

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| 1. **User Stories/Task Cards** |
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| 1. **Requirements Analysis** |
| **Functional Requirements:**   * **FR-03:** Each of the players. Including A.I Players must be assigned one of the following game tokens during the game:   + *Boot*   + *Smartphone*   + *Goblet*   + *Hat stand*   + *Cat*   + *Spoon* * **FR-04:** Two 6-sided dice must be made for the players to use, as suggested by Watson Games. They must be able to be rolled at the same time as each other and thus provide a dice outcome for the player to use. The end result of both dice should be added up, to provide the total number of moves the player should make. * **FR-05:** The two dice created must be used by the each of the players. The players must be put into an order/queue (can be randomised or chronological, option will be available to player through the use of a button on the screen during the game) to know who is to through the dice and when to do so. * **FR-06:** From the very start of the game, **ALL** players and their game tokens **MUST** start from the starting board space labelled “GO”. (Depending on the developers) This will be found on the bottom left corner of the game board, as seen on the original physical version of the Property Tycoon Board Game. * **FR-07:** From the Starting space on the board (refer to FR-06 for more clarification on “Starting Space”) all players (including A.I players) MUST move in a clockwise direction around the board. Depending on the card drawn by the player, certain game tokens should be able to also go backwards due to change cards. * **FR-09:** All Players will be assigned a cash lot from the start of the game of a total of £1500.00 in “cash” (game credits to use during the game). This is to be used until the end of the game or until the “cash” has run out. * **FR-10:** As requested by Watson Games, none of the players should be assigned the role of banker and rather the program itself is assigned and handles the role of banker. This way the players can continue on and enjoy the game. The banker should be given the ability to distribute the correct amount of cash to each player throughout the game, via access to the “Bank”. The “Bank” will have a total of £50000 to ben used by the banker during the game. The Bank CANNOT lend out money to be borrowed from players. * **FR-11:** What MUST be maintained throughout the game is that players cannot borrow additional money from the bank or the banker. Rather they will be able to trade game items with the bank. * **FR-13:** Ensure that if the player throws a double, they are able to take an extra turn, additional to the previous ones. If this occurs on their 3rd turn then the game tokens of that player must be taken to the game board space called “Jail”. When a player goes to “Jail” they do not go surpass the “Go” space on the game board but rather directly to the “Jail space”. Refer to the below example for more understanding: **Player's turn, Rolls dice -> Double, rolls again -> Double, rolls again -> Double, Goes to jail** * **FR-25:** In similarity to FR-10, where Banks cannot lend out money to players, players themselves CANNOT lend out money to other players. This should be prohibited during game development.   **User Interface Requirements:**   * **UI-03:** Players game tokens must be visible from start to the end of game. If in the event that a player is bankrupt and thus ejected from the game. Their Game token should not be visible for the remaining duration of the game. * **UI-04:** Players cash amounts should be visible for all to see; deductions should be temporarily shown next to the updated cash amount. Player names should be visible next to the cash amount. This should also be the case for all owned property where * **UI-06:** Game dice results should be visible for the user to see. To have the dice animations on screen would be ideal to have, but not mandatory.   **Non-Functional Requirements:**   * **RR-03:** Developers should ensure the user is restricted from moving again if you’ve previously rolled until it is their turn again, thus preventing any form of cheating. |

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| 1. **Design** |
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| 1. **Test Plan & Evidence of Testing** |
| **System Level Testing:**   |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | **Test No.** | **Description** | **Input(s)** | **Expected Outcome** | **Actual Outcome** | **Success?** | | 1 | Current user clicks dice roll button. | Dice roll [button click]. | User’s token moves between 1-12 tiles along the board. | The players position changes. |  | | 2 | Double dice roll. | User throws a ‘double’ [button click]. | Current user is able to throw another dice roll. | A message box showing that a double has been obtained |  | | 3 | Triple dice roll. | User throws a third ‘double’ in the same turn [button click]. | Game token of user is moved to ‘jail’ tile, doesn’t pass go. | A message box appears that tells the user that they are now in jail |  | | 4 | All players begin going around the board in a clockwise direction from GO. | All players click dice roll button [button click] in their respective first move. | All player tokens move to tiles in clockwise direction. | All players do move in the clockwise direction. |  | | 5 | All players assigned £1500 cash prior to first roll. | Successful game setup. | Each player’s cash variable set to £1500. | Each player has a starting money of £1500 |  | | 6 | Player game tokens visible. | Game set up with six players. | With all game tokens starting on the “Go” tile, all tokens are clearly visible to the players. | No tokens visible on the board. |  | | 7 | Player cash amounts are visible. | Game set up with six players. | All players can see each other’s current cash amount. | N/A - No implementation as yet. |  | | 8 | Cash deduction is temporarily shown next to associated cash amount. | Player 1 makes a transaction. | Making a transaction deducts money from the player’s account; this deduction is displayed next to the cash amount for said player. | N/A - No implementation as yet. |  | | 9 | Dice roll results are visible. | Player rolls dice on their turn [dice roll]. | Animation plays, and dice roll result is clearly visible to the players. | A message box pops up with the value of the dice roll |  |   - |

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| 1. **Summary of Sprint** |
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