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| 1. **Summary Data** | |
| **Team Number** | 15 |
| **Sprint Technical Lead(s)** | Thomas Senyah |
| **Sprint Start Date** | 26/03/20 |
| **Sprint End Date** | 02/04/20 |

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| 1. **Individual Key Contributions** | |
| **Team Member** | **Key Contribution(s)** |
| Thomas Senyah | The main focus of this sprint was to develop a working Property class, which would deal with the setting up of the property tiles on the board. Other, non-property tiles on the board, were also worked on in this sprint. Thomas again took charge of this sprint and worked on it solely. |

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| 1. **User Stories/Task Cards** |
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| 1. **Requirements Analysis** |
| **Functional Requirements:**   * **FR-14:** Various Board Spaces should contain one of the following spaces (That is one property per space):   + “Pot Luck”   + “Opportunity knocks”   + “Free parking”   + “Jail”/” Just Visiting” (Jail and Just Visiting will share one space as seen on the physical board)   + Free parking * **FR-16:** All players should have the ability to buy property throughout the game, but a constraint should be added in this case. The constraint being that they can only purchase property within the game, once they have completed one full clockwise circuit of the game board. This means full circuit to and from the starting “Go” position. * **FR-17:** Following on from FR-16, when a player successfully goes around once the player should receive £200.00 from the bank. This occurs every full cycle of the board. * **FR-18:** Relating to FR-16 and FR-17, all property must, initially be in ownership of the bank. NO players should be in ownership of any property at the start of the game. When the Player does successfully buy a house, the player will receive the property card and in return the amount the property costs, as shown on the card, will be deducted from the player and given to the bank (the amount the bank has should be displayed as well. This should all occur before the continuing the game. Please Note: Houses and hotels should be purchased ONLY for the amount shown on the card withdrawn, nothing more and nothing less. * **FR-19:** When a player lands on a space with a property, and said property has not been purchased yet by the other players, then the player now has the opportunity to buy the property. A constraint MUST be made that if they do not have enough, they cannot buy the property. When given the opportunity and having enough money to do so, they can buy the property but, in the event, that withdraw from such an opportunity then the property is auctioned to the bank. From this point the Bank can accept bids from the other players and whomever has the highest bid is who the bank MUST sell to. If, however, the situations come to a point where no bids have been made by any of the players, then the property remains unsolved. * **FR-22:** Players who have initially bought a property should be able to buy other houses and hotels to improve their portfolio. Please note that “improvements” made by a property-owning player can only occur after the time of purchase and SHOULD NOT be permitted in any other instance. Please note: The maximum development permitted on any one property is one hotel. * **FR-27:** Where a coloured set of properties is owned and developed by a player, there may never be a difference of more than 1 house between the properties in that set. If a player wishes to buy a hotel, that is the equivalent of 5 houses in cost. A player may have 4 houses on one set and a hotel on another in that set. * **FR-29:** Where fines are to be paid, the proceeds accumulate on the free parking space in the centre of the board. When a player lands on free parking, they collect all the funds currently on the free parking space. * **FR-30:** If a player is sent to the jail, they may pay £50 to be released from jail. The £50 is added to the free parking fines. The player token is then moved to “just visiting” and the players turn ends. The player takes a normal turn in the next round. he next 2 rounds. Whilst in jail, a player may not collect any rents from other players. At the end of the next 2 rounds, the player token is moved to “just visiting” and the players turn ends. The player takes a normal turn in the next round.   **User Requirements:**   * **UI-02:** Game board should be fully visible when “Start Full Game” or “Start Abridged Game” options are selected. A classic 2D square 10 X 10 board over a round one would be more preferred, as mentioned by Watson Games. * **UI-08:** The 10 x 10 is the usual setup. It is consistent with the spirit and integrity of the original game. |

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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 | Player tries to purchase a property before completing their first circuit of the board. | Player clicks ‘buy property’ button [button click]. | Error message displayed; property is not added to player’s inventory. | Error message asking the user to complete one turn of the board |  | | 2 | Player tries to purchase a property having initially completed first circuit of board; also has enough cash to afford the property. | Player clicks ‘buy property’ button [button click]. | Property is added to the player’s inventory. | There is a property list that holds all the values of the properties |  | | 3 | Player tries to purchase a property having initially completed first circuit of board; does not have enough cash to afford the property. | Player clicks ‘buy property’ button [button click].  Insufficient cash amount [integer]. | Error message displayed; property is not added to player’s inventory. | A message shows telling the user that they don’t have the funds to complete the purchase |  | | 4 | Bank awards £200 to player for passing ‘Go’ tile. | Player game piece passes ‘Go’ tile after completing a full circuit. | Player’s cash amount is increased by £200. | The players cash amount increases by 200 |  | | 5 | Bank receives correct amount of cash when property is successfully purchased. | Player clicks ‘buy property’ button [button click]. | Player has the property value deducted from account; bank gains this value. | The players money decreases. And the property is added to the owned properties | Partial - as banker is the computer its money is infinite. | | 6 | Property is placed on auction if not bought by current player. | Player lands on unclaimed property and ends turn [button click] without purchasing said property. | Property is floated on auction to rest of the players. | N/A - No implementation as yet. |  | | 7 | Player bids on auctioned property; can afford said bid. | Player places the winning bid on the auctioned property [button click]. | The player gains the property and its card; value of winning bid is deducted from their account and added to the bank. | N/A - No implementation as yet. |  | | 8 | Player bids on auctioned property; is unable to afford said bid. | Player places the winning bid on the auctioned property [button click].  Insufficient cash amount [integer]. | Error message is displayed; property is not sold and auction ends. Game proceeds to next turn. | N/A - No implementation as yet. |  | | 9 | Property is floated for auction; a player has not completed a full circuit of the board yet. | Banker floats a property for auction. | Player and all other players yet to complete initial full board cycle are excluded from auction. | N/A - No implementation as yet. |  | | 10 | User makes a trade offer to another player. | Player selects assets to offer as trade. | Player on receiving end of trade is presented with a message alert, asking whether they wish to confirm trade; if so, necessary transactions take place between the two players. | N/A - No implementation as yet. |  | | 11 | A player attempts to make a second trade offer in the same turn. | Player clicks ‘make trade offer’ button [button click]. | Error message is displayed; trade is not presented to the receiving player. | N/A - No implementation as yet. |  | | 12 | Game board displayed after selecting “Start full game”. | “Start full game” button clicked [button click]. | Menu screen is replaced with a view of the 10x10 board. | Game board shown after selecting the normal button |  | | 13 | Game board displayed after selecting “Start abridged game”. | “Start abridged game” button clicked [button click]. | Menu screen is replaced with a view of the 10x10 board. | Menu is replaced with a screen for the countdown timer input |  |   - |

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| 1. **Summary of Sprint** |
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