# **Sprint 2 Design Inspection, Code Inspection, Defect Log**

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| **Module** | **Developer** |
| Main Menu | Trevor, Sean |
| Rules | Trevor |
| Settings | Trevor |
| Game (Engine) | Sean, Dan, Scott, Trevor |
| AI | Dan, Sean |
| Player | Dan, Scott |
| Lookup Tables | Dan |
| Card | Scott |

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| Product | BlackJack Game (Group 1) |
| Date | 3/1/2016 - 3/3/2016 |
| Authors | Scott McClellan, Sean Kelley, Trevor Edris, Dan Sokoler |
| Moderator | Sean Kelley |
| Inspectors | Scott McClellan, Sean Kelley, Trevor Edris, Dan Sokoler |
| Recorders | Scott McClellan, Sean Kelley, Trevor Edris, Dan Sokoler |

Design Inspection

-In the first sprint we had cemented our design to the point that come this second sprint there was not much room or need for design changes. Though we did spend time inspecting our design for flaws, at this time there are none we can find. All bugs that were found were either through Code Inspection or Unit Testing.

Code Inspection

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| # | Description | Severity | Fix | Module |
| 1 | ArrayIndexOutOfBounds upon 2nd hit from player | 1 | Redo array index calculation  This is a very similar bug to one found in Sprint 1, but it is a separate incident. | AI |
| 2 | Calling printHand was resulting in the hand being printed twice. | 3 | Removed one of the printHand calls | Engine |
| 3 | Inspection of stay method showed that the player could still hit after selecting “Stay”. | 2 | Flag set to indicate that player had chosen “Stay” previously, player no longer presented with the option to hit, computer players all finish their turn | Engine |
| 4 | Inspection of new round method revealed the engine was resetting variables regardless of if a new round was to be played or not | 1 | Moved the reset to after “Play Again” option was selected | Engine |
| 5 | After hand was won, the board would still print out opposing players’ first cards as face down | 3 | When board print is called, check to see if hand has been won. If it is, print ALL cards | Engine |
| 6 | Dealer’s hand was not considered “cpu” hand for print board method, was not printed | 2 | Added separate section for printBoard method to include dealer’s hand | Engine |

Unit Testing

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| # | Description | Severity | Fix | Module |
| 1 | -Play first game..  -Finish first game.  -Begin second game.  -Upon start of game 2 the human object is Null, causing NullPointerException | 1 | Instead of setting human to null the human player’s hand is cleared | Engine/Player |
| 2 | -Play first game.  -Finish first game.  -Begin second game.  -Upon start of second game, players retained their hand from the previous game in addition to getting 2 new cards | 2 | Wrote a method to clear a single player’s hand | Engine/Player |
| 3 | -Begin first game.  -Finish first game.  -Begin second game.  -Upon start of second game the list of CPUs is not reset resulting in CPUs with uncleared hands | 2 | Reset CPU list to hold blank CPUs after each game | Engine |
| 4 | -Begin first game.  -Finish first game.  -Begin second game.  -Finish second game.  -Upon completion of the second game, the winners list is set to null in between games, resulting in a NullPointerException | 1 | Winners list is reset to blank arraylist after each game instead of null | Engine |
| 5 | -Begin first game.  -Finish first game.  -Upon completion of first game engine states “Error: Please enter a valid integer.” | 3 | switched input from next int to next line to capture newline and keep it from being sent to next input | Engine |
| 6 | -Begin first game.  -Finish first game by player busting  -Begin second game  -Engine claims player has busted on turn 1, which should be impossible. | 1 | clearHand method for Player was not setting hasBusted back to the default, this was changed. | Engine |
| 7 | -Start first game.  -Finish first game by busting.  -Upon busting, the engine prints the “play another game” menu twice | 3 | Switched from getting next integer to getting next line | Engine |
| 8 | -Start first game.  -Hit until bust  -Selection of “Placeholder” in the play options menu would result in an automatic win | 2 | Placeholder option previously did not set correct loop condition for game to continue, edited to set correct loop condition | Engine |
| 9 | -Start game  -human hits until bust  -dealer has highest non bust  -human wins game | 2 | When human busts and dealer has best non-bust hand, assign win to dealer not human | Engine |