ID	Requirement ID	Title	Priority	Description	Expected Results	Actual Results	Comments
1	3.1.1	Board Initialization	High	Test the creation of the board. To test, the tester must attempt to initialize a match.	An 8x8 checkered board should appear.	A board is generated with 64 unique squares, 8 unique rows (with 8 squares each), and 8 unique columns with 8 squares each.	Done
2	3.1.2	Board Piece Initialization	High	Test the creation of the pieces. To test, the tester must attempt to initialize a match.	All 24 chess pieces should appear on the board in the correct starting places.	Each player has 8 pawns, 2 rooks, 2 knights, 2 bishops, 1 king, and 1 queen in the correct places on the board.	Done
3	3.1.3	Move Timer Enforcement	Low	Test the system's ability to enforce a time limit to a player making a move. To test, the tester must be in an active game with a time limit set on the game. The tester should wait out the timer without making a move.	A time limit notification should appear, current turn should pass to the opponent.		Priority Low: Element not added until future release
4	3.2.1	Pawn Single Move (Legal)	High	Test the movement of the pawn. Rules state that the pawn may only move forward one space (unless it is the first move of the pawn). To test, the tester must be in an active game and attempt to move a pawn forward one spot.	The pawn should now occupy the space one step in front of where it was originally.	Pawn moves forward 1 square.	Done
5	3.2.1	Pawn Single Move (Illegal)	High	Test the movement of the pawn. Rules state that the pawn may only move forward one space (unless it is the first move of the pawn). To test an illegal move, the tester must be in an active game and attempt to move a pawn to an illegal spot.	An illegal move notification should appear, the pawn should remain in the original space, the player should continue with their turn.	An illegal move notification is returned. The pawn remains in the original space and the player continues with their turn.	Done
6	3.2.1	Pawn Double Move (Legal)	High	Test the two-space movement of the pawn from the beginning stage. Rules state that the pawn may move forward two spaces from its starting position. To test, the tester must be in an active game and attempt to move a pawn forward two-spaces from the starting position.	The pawn should now occupy the space two steps in front of where it was originally.	Pawn moves forward 2 squares.	Done
7	3.2.1	Pawn Double Move (Illegal)	High	Test the two-space movement of the pawn. Rules state that the pawn may move forward two spaces from its starting position. To test, the tester must be in an active game and attempt to move a pawn forward two-spaces from a position other than the starting position.	An illegal move notification should appear, the pawn should remain in the original space, the player should continue with their turn.	An illegal move notification is returned. The pawn remains in the original space and the player continues with their turn.	Done
8	3.2.2	Rook Move (Legal)	High	Test the movement of the rook. Rules state that the rook may move vertically or horizontally for as many spaces as are unoccupied. To test, the tester must be in an active game and attempt to move the rook vertically a legal amount of spaces and then, after the other player moves, attempt to move the rook horozontally a legal number of spaces.	The rook should now occupy a space in the same vertical column where it was originally after the first move and then occupy a space in the horozontal row as the piece after the second move.	Rook occupies the space in the same vertical column where it originally was after the first move and then occupies a space in the horizontal row as the piece after the second move.	Done

9	3.2.2	Rook Move (Illegal)	High	Test the movement of the rook. Rules state that the rook may move vertically or horizontally for as many spaces as are unoccupied. To test, the tester must be in an active game and attempt to move the rook vertically an illegal amount of spaces. This test should also be done for an illegal horozontal move and mov that is neither vertical or horizontal.	An illegal move notification should appear, the rook should remain in the original space, the player should continue with their turn.	An illegal move notification is returned. The rook remains in the original space and the player continues with their turn.	Done
10	3.2.3	Knight Move (Legal)	High	Test the movement of the knight. Rules state that the knight moves two squares sideways and then one square up or down, or two squares up or down, and then one square sideways. To test, the tester must be in an active game and attempt to move the knight a legal amount of spaces horizontally and vertically.	The knight should occupy the selected space, which is either exactly two steps in the vertical direction and one step in the horizontal direction or exactly two steps in the horizontal direction and one step in the vertical direction from its original location.	The knight occupies the selected space, which is exactly two steps in the vertical direction and one step in the horizontal direction or exactly two steps in the horizontal direction and one step in the vertical direction from its original location.	Done
11	3.2.3	Knight Move (Illegal)	High	Test the movement of the knight. Rules state that the knight moves two squares sideways and then one square up or down, or two squares up or down, and then one square sideways. To test, the tester must be in an active game and attempt to move the knight an illegal amount of spaces horizontally and vertically.	An illegal move notification should appear, the knight should remain in the original space, the player should continue with their turn.	An illegal move notification is returned. The knight remains in the original space and the player continues with their turn.	Done
12	3.2.4	Bishop Move (Legal)	High	Test the movement of the bishop. Rules state that the knight can move in any direction diagonally. Chess rules state that there is no limit to the number of squares a bishop can travel on the chessboard as long as the spaces are unoccupied.To test, the tester must be in an active game and attempt to move the bishop diagonally a legal amount of spaces.	The bishop should occupy the selected space which is diagonally away from its original location.	Bishop occupies the selected space which is diagonally away from its location.	Done
13	3.2.4	Bishop Move (Illegal)	High	Test the movement of the bishop. Rules state that the knight can move in any direction diagonally. Chess rules state that there is no limit to the number of squares a bishop can travel on the chessboard as long as the spaces are unoccupied. To test, the tester must be in an active game and attempt to move the bishop diagonally an illegal amount of spaces.	An illegal move notification should appear, the bishop should remain in the original space, the player should continue with their turn.	An illegal move notification is returned. The bishop remains in the original space and the player continues with their turn.	Done
14	3.2.5	Queen Move (Legal)	High	Test the movement of the queen. Rules state that the queen can move any number of unoccupied squares in a straight line, horizontally, vertically, or diagonally. To test, the tester must be in an active game and attempt to move the queen beyond an occupied space.	The queen should occupy the selected space which is either vertically, diagonally or horizontally away from its original location.	Queen occupies the selected space which is vertically, diagonally or horizontally away from its original location.	
15	3.2.5	Queen Move (Illegal)	High	Test the movement of the queen. Rules state that the queen can move any number of unoccupied squares in a straight line, horizontally, vertically, or diagonally. To test, the tester must be in an active game and attempt to move the queen illegally on an occupied space.	An illegal move notification should appear, the queen should remain in the original space, the player should continue with their turn.	An illegal move notification is returned. The queen remains in the original space and the player continues with their turn.	Done

16	3.2.6	King Move (Legal)	High	Test the movement of the king. Rules state that the king may only move one space in any direction. To test, the tester must be in an active game and attempt to move the king to a legal position. The tester should ensure that this works for all directions.	The king should occupy the selected space exactly one step away from its original location.	The king occupies the selected space exactly one step away from its original location.	Done
17	3.2.6	King Move (Illegal)	High	Test the movement of the king. Rules state that the king may only move one space in any direction. To test an illegal move, the tester must be in an active game and attempt to move the king to an illegal spot.	An illegal move notification should appear, the king should remain in the original space, the player should continue with their turn.	An illegal move notification is returned. The king remains in the original space and the player continues with their turn.	Done
18	3.2.6	Castling Move (Legal)	High	Test the movement of chess pieces to conduct a castling move. To test, the tester must be in an active game and the tester's king and the rook must not have moved from their starting squares, all spaces between the king and the rook must be empty, the king should not be in check and the squares that the king passes over must not be under attack.	The king and the rook must not have moved from their starting squares, all spaces between the king and the rook must be empty, the king should not be in check and the squares that the king passes over must not be under attack.	The king and the rook must not have moved from their starting squares, all spaces between the king and the rook must be empty, the king should not be in check and the squares that the king passes over must not be under attack.	Done
19	3.2.6	Castling Move (Illegal)	High	Test verifies the ability of the chess pieces to conduct a castling move. Rules state that the king and the rook must not have moved from their starting squares, all spaces between the king and the rook must be empty, the king should not be in check and the squares that the king passes over must not be under attack. To test an illegal move, the tester must be in an active game and attempt to move the king and the rook from their starting squares, have pieces between the king and the rook and have the king in check.	An illegal move notification should appear, all the pieces should remain in their original spaces, the player should continue with their turn.	An illegal move notification is returned. The pieces remain in their original space and the player continues with their turn.	Done
20	3.3.1	Pawn Capturing (Legal)	High	Test the ability of a pawn to capture an enemy piece diagonally adjacent to it. To test, the tester must be in an active game and attempt to move the pawn diagonally on top of an enemy piece.	Pawn should be able to successfully move to the square of the enemy piece. Enemy piece should be removed and the capture list must contain the enemy piece now.	Pawn successfully moves to the square of the enemy piece. Enemy piece is removed and the capture list contains the enemy piece now.	Done
21	3.3.1	Pawn Capturing (Illegal)	High	Test the ability of a pawn to capture an enemy piece diagonally adjacent to it. To test, the tester must be in an active game and attempt to move the pawn illegally on top of an ememy piece.	An illegal move notification should appear, all pieces should remain in their original spaces, the player should continue with their turn.	An illegal move notification is returned. The pieces remain in their original space and the player continues with their turn.	Done
22	3.3.2	General Capturing	High	Test the ability of a piece (other than a pawn) to capture an enemy piece. To test, the tester must be in an active game and attempt to legally move a piece to the same space as an ememy piece.	The tester's piece should be able to successfully move to the square of the enemy piece. The enemy piece should be removed and added to the capture list.	Tester's piece successfully moved to the square of the enemy piece. The enemy piece was removed and added to the capture list.	Done

				Test the ability of the system to reconize en passant. To test, the tester must be in an active game and should capture an enemy pawn that makes a move of two squares from its starting square.	The tester's piece should be able to successfully move to the square of the enemy piece. The enemy piece should be removed and added to the capture list.		
23	3.3.3	En Passant	Low				Priority Low: Element not added until future release
24	3.4.1	Pawn Promotion	High	Test the ability of a pawn to be promoted. To test, the tester must legally move a pawn from its starting position to the other side of the board.	A pawn promotion notification should appear for the player whose pawn successfully reached the 8th rank. The tester should select bishop, knight, rook, or queen and the pawn should be promoted to that piece.	A pawn promotion notification appears for the player whose pawn successfully reached the 8th rank. The tester selects either a bishop, knight, rook, or queen and the pawn is promoted to that piece.	Done
25	6.1.5	Check Recognition	High	Test the ability of a player to place an opponent in check. To test, the tester must be in an active game and attempt to legally move a piece to a position where the enemy's king could be captured on the tester's next turn if the king is not moved.	A check notifcation should be displayed for both players. The opponent should continue with their turn.	A check notifcation is displayed for both players. The opponent should continue with their turn.	Done
26	6.1.5	Check Enforcement (Legal)	High	Test the ability of the system to force a player in check to move out of check. To test, the tester must be in active game and be placed in check. The tester should attempt to legally move out of check.	The piece should occupy the selected space and the player should no longer be registered as in check.	The piece occupies the selected space and the player should no longer be registered as in check.	Done
27	6.1.5	Check Enforcement (Illegal)	High	Test the ability of the system to force a player in check to move out of check. To test, the tester must be in active game and be placed in check. The tester should attempt to illegally move out of check or to move in a way that does not move out of check.	An illegal move notification should appear, all the pieces should remain in their original spaces, the player should continue with their turn.	An illegal move notification is returned. The pieces remain in their original space and the player continues with their turn.	Done
28	3.6.1	Checkmate Recognition	High	Test the ability of a player to place an opponent in checkmate. To test, the tester must be in an active game and attempt to legally move a piece to a position where the enemy's king could be captured on the tester's next turn and the opponent has no way to move out of check.	A checkmate notification should appear for both players. The winner should be announced. The game board should be cleared and the game should end.	A checkmate notification appears for both players. The winner is announced. The game board is cleared and the game ends.	Done
29	3.6.1	Checkmate Enforcement	High	Test the ability of the system to declare checkmate and end the game. To test, the tester must be in an active game and must be under checkmate.	A winner notification should appear for both players. The game board should be cleared and the game should end.	A winner notification appears for both players. The winner is announced. The game board is cleared and the game ends.	Done
30	3.6.2	Stalemate Enforcement	Medium	To test the ability of a system to declare stalemate. To test, the tester must be in an active game and should be in a position that counts as a darw i.e. the tester is not in check but cannot move except into check.	A draw notification should appear for both players. The players should have an option to end the game, the game board should be cleared and the game should end.		Priority Medium: Element not added until future release
31	3.6.3	Voluntary Stalemate	Medium	To test the ability of a system to declare stalemate. To test, the tester must be in an active game and should be in a position that counts as a darw i.e. the tester is not in check but cannot move except into check.	A draw notification should appear for both players. The game board should be cleared and the game should end.		Priority Medium: Element not added until future release

#	Ref	Name	Priority	Description	Expected Result	Actual Result	Status
32	3.6.4	Insufficient Material Enforcement	Low	To test the ability of the system to declare insufficient material and end the game in draw. To test, the tester must be in an active game and should not have enough chess pieces left to checkmate the enemy king.	A draw notification should appear for both players. The game board should be cleared and the game should end.		Priority Low: Element not added until future release
33	3.6.5	50 Move Rule Enforcement	Low	Test the system's ability to recognize the 50 Move Rule. To test, the tester must be in an active game and move pieces in such a way that no pawn is moved nor no capture occurs for 50 moves.	A draw notification should appear for both players. The game board should be cleared and the game should end.		Priority Low: Element not added until future release
34	3.6.6	Threefold Repetition Enforcement	Low	Test the system's ability to recogonize a threefold repetition. To test, the tester must be in an active game and should continue to repeat the same moves as other moves might put them at a disadvantage.	A draw notification should appear for both players. The game board should be cleared and the game should end.		Priority Low: Element not added until future release
35	6.1.1	Match Creation	High	Test the creation of the board. To test, the tester must attempt to initialize a match.	A connection should be made between two opponents and the game should be displayed.	A connection is made between two opponents and the game is displayed.	Done
36	6.1.3	Match Update	High	Test the update of the match. To test, the tester must be in an active game and should attempt to legally move a piece.	The match should be correctly updated for the alternate player.	The match is correctly updated for the alternate player.	Done
37	3.7.2	User Creation	High	Test the creation of the user. To test, the tester must attempt to initialize a move.	A connection should be made between two opponents and the game should be displayed.	A connection was made between two opponents and the game was displayed.	Done
38	6.1.8	Player Absent	High	Test the system's ability to end a game when a player leaves the match. To test, the tester must be in an active game and attempt to leave the match.	An absent player notification should appear for the remaining player. The game should end and the board should be cleared.	An absent player notification appears for the remaining player. The game ends and the board is cleared.	Done
39	6.1.6	Winner Declaration	High	Test the system's abilty to recognize a winner. To test, the tester must be in an active match and place the other player in check. The test should also be done in the case where a player chooses to forfeit the match.	A winner notification should appear for both players. The game board should be cleared and the game should end.	A winner notification appears for both players. The game board is cleared and the game ends.	Done

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