

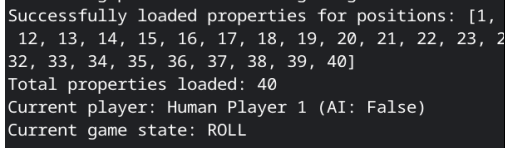

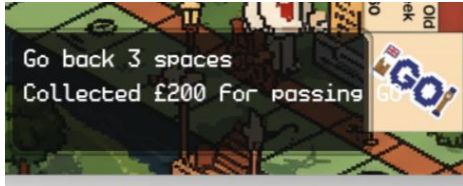
Group 5 – Software Engineering Project-Property Tycoon System Level Testing



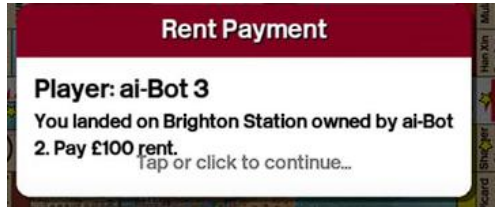
Test Date:06/04/2025

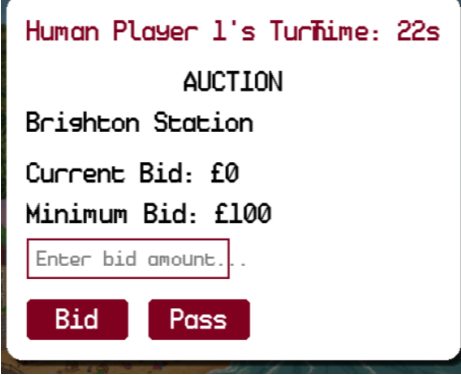
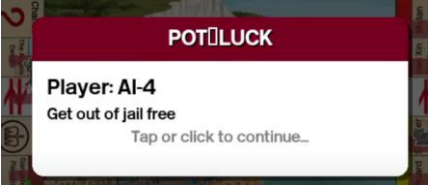
Test Environment: PC


Testing Build Version: Build. 06.04.2025




Execution Mode: Running from Built Executable

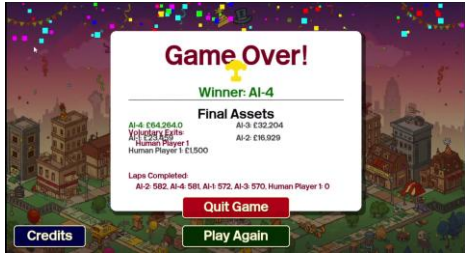

Test ID	Description	Input	Expected Outcome	Actual Outcome	Screenshot	Pass /Fail	What Next?	Notes
1	Game Initialization	Start a new game with 2 human players and 1 AI player	The game should initialise with correct player money (£1,500 each), board setup, and game pieces, load data from an Excel file	The cmd output shows the game has been Initialized in the correct way	 <pre>Successfully loaded properties for positions: [1, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40] Total properties loaded: 40 Current player: Human Player 1 (AI: False) Current game state: ROLL</pre>	Pass	No action needed	The test bank limit is £50,000
2	Dice Rolling and Movement	Click the "Roll" button during the player's turn	Dice animation should display random values 1-6, and the player token should move the correct number of spaces	dice animation is working and stops in a few seconds		Pass	No action needed	Check double rolls logic
3	Player Passing GO	Move the player across the GO space	The player should receive £200, lap counter should increment	The player should receive £200, and be able to buy the property after passing go on the first time	 <p>Go back 3 spaces Collected £200 for passing GO</p>	Pass	No action needed	/

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4	Property Purchase	Land on unowned property, click the "Buy" button	Player money should decrease by property price, property should show ownership	show ownership on the player card with a colour box	 	Pass	No action needed	Test with different property types
5	Rent Payment	Land on property owned by another player	Correct rent should be calculated and transferred from the landing player to the owner.	Rent paid successfully		Pass	No action needed	Test different rent scenarios

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6	Auction System	Decline to purchase property when landing on it	An auction interface should appear, and all players should be able to bid	yes, works, but not for players in jail		Pass	No action needed	Test AI bidding behaviour
7	Card Drawing	Land on "Pot Luck" or "Opportunity Knocks" spaces	A card should be drawn and its effect applied to the player	The card popup was triggered to inform the player, but it appeared one round too late. After a player landed on the card space, the popup did not show immediately. Instead, it was stored and only displayed one round later, when it was the player's turn again.		Fail	<p>Have been trying to fix this issue since the last round of level testing, but it appears to be a deeply rooted problem in the code and is very difficult to pinpoint.</p> <p>One possible reason could be that the game turn ends too quickly, preventing</p>	

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							<p>the popup from being displayed within the same turn.</p> <p>However, the tax payment popup does appear immediately when a player lands on that space, so the exact cause of the issue remains unknown.</p>	
8	Jail Mechanics	Roll three consecutive doubles or land on "Go to Jail"	The player should move to jail, miss turns until conditions meet	working, player position move to jail		Pass	No action needed	Test all jail escape options
9	Free Parking	Land on Free Parking space	The player should collect accumulated fine money (if the house rule is enabled)	working, the total amount of free parking space has been showing on the UI		Pass	No action needed	Optional house rule

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10	House Building	Select a property from a complete set, click "Build House"	House should be added to the property, rent values should increase	House added and showed on player card and the board ui		Pass	No action needed	Test after the first lap
11	Bankruptcy Handling	Force players to pay more money than they have	The player should go bankrupt, and assets transferred to the bank	the player was marked as bankrupt		Pass	No action needed	fixed:
12	AI Player Turn Processing	Wait for the AI player to turn	AI should make decisions based on difficulty level	working		Pass	No action needed	Tests are both easy and hard difficulty

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13	Game End Condition	Play until only one player remains solvent	The game should end and declare winner	show end game screen		Pass	No action needed	Check winner calculation
14	Time Limit (Abridged Game)	Play abridged game mode for set time	Games should end after time expires	show end game screen		Pass	No action needed	180min max