

Simultaneous Exchange

Validation Test Plan

1. Start Scenario

Test Case ID	Priority	Description	Input	Pass/Fail criteria	Test designer	Tester	Design Date
start_1	high	Upon system start, the user can start the first scenario on the menu screen.	Click on the "Start" button	Pass: Scenario 1: "Get Rich Quick!" is successfully loaded. Tutorial is displayed. Fail: System crashes, wrong scenario/information is loaded or tutorial is not displayed.	Peter	Mac: Mathilde Windows: Peter	25/04
start_2	medium	When a scenario ends, the user can restart the scenario.	Click on the "Restart Scenario" button	Pass: the same scenario is loaded again and the corresponding tutorial is displayed to the user Fail: System crashes or the wrong scenario is loaded	Peter	Mac: Mathilde Windows: Peter	25/04
start_3	medium	When a scenario ends, the user can start the next scenario.	Click on the "Next Scenario" button	Pass: the next scenario is successfully loaded and the correct tutorial is displayed to the user Fail: System crashes or a wrong scenario is loaded	Peter	Mac: Mathilde Windows: Peter	25/04
start_4	low	When the last scenario ends, the user can restart the game.	Click on the "Restart Game" button	same criteria as test case start_1	Peter	Mac: Mathilde Windows: Peter	06/05

2. Progress Time

Test Case ID	Priority	Description	Input	Pass/Fail criteria	Test designer	Tester	Design Date
progress_1	high	During a scenario, the user can progress through time by moving to the next day, week, or month (depending on the scenario).	Click on "Next [timestep]" button	Pass: System goes to the next day, week or month, updates any time-variable attribute in the user portofolio and the GUI Fail: System crashes, doesn't move to the next day, week or month or doesn't update time-variable attributes in the user portofolio, or ends the scenario too early..	Mathilde	Mac: Lachlan Windows: Peter	04/04
progress_2	medium	When the user tries moving to the next day, week or month (depending on the scenario) while being in the last day, week or month of a scenario, the system ends the scenario and specifies if the user has won or lost.	Click on "Next [timestep]" button in the last day of a scenario	Pass: System ends the scenario and displays a window specifying if the user has won or lost and offers 2 choices: restart scenario or go to next scenario. Fail: System crashes, goes to a next day, week or month, or updates the user portofolio and the GUI	Mathilde	Mac: Lachlan Windows: Peter	04/04

3. Request Financial Instrument Information

Test Case ID	Priority	Description	Input	Pass/Fail criteria	Test designer	Tester	Design Date
info_1	high	At any time during a scenario, the user can access a graph displaying information about historical behavior of the loan in the game.	Click on "h" button of the loan in any of the timelines	Pass: System opens a pop-up window and displays a graph with historical interest rates of the loan Fail: System crashes, doesn't open the correct window or opens a window but the not with a correct graph (no legend or title, invalid data points)	Mathilde	Mac: Lachlan Windows: Peter	15/04
info_2	high	At any time during a scenario, the user can access a graph displaying information about historical behavior of a stock in the game.	Click on "h" button of any stock in any of the timelines	Pass: System opens a pop-up window and displays a graph with historical prices of the corresponding stock Fail: System crashes, doesn't open the correct window or opens a window but the not with a correct graph (no legend or title, invalid data points)	Mathilde	Mac: Lachlan Windows: Peter	15/04

4. Split Timeline

Test Case ID	Priority	Description	Input	Pass/Fail criteria	Test designer	Tester	Design Date
split	high	During a scenario and if only the "center" timeline is active, the user can duplicate it, creating a new independent instance identical to the original.	Click on "Split Timeline" button	Pass: System copies information from the active "center" timeline to the other two. Then the 'center' timeline will deactivate, and the other two timelines will activate and be displayed. Fail: System crashes, the system doesn't split the timeline or splits it but doesn't copy all necessary information to the "left" and "right" timelines.	Lachlan	Mac: Mathilde Windows: Peter	25/04

5. Merge Timelines

Test Case ID	Priority	Description	Input	Pass/Fail criteria	Test designer	Tester	Design Date
merge_right	high	During a scenario and if two timelines are active ("left" timeline and "right" timeline), the user can delete the "left" timeline and return to a situation with one active timeline (the "center" timeline, which is identical to	Click on "Drop Timeline" button on the "left" timeline	Pass: System copies information from the "right" timeline to the "center" timeline. Then the "center" timeline is activated (and displayed to the user) while the other two timelines are deactivated	Peter	Mac: Mathilde Windows: Peter	25/04

		the previous "right" timeline).		(and hidden from the user) Fail: System crashes, doesn't return to a situation with one active and displayed timeline, doesn't copy the information from the "right" timeline to the "center" timeline or copies the information from the wrong ("left") timeline.			
merge_left	high	During a scenario and if two timelines are active ("left" timeline and "right" timeline), the user can delete the "right" timeline and return to a situation with one active timeline (the "center" timeline, which is identical to the previous "left" timeline).	Click on "Drop Timeline" button on the "right" timeline	Pass: System copies information from the "left" timeline to the "center" timeline. Then the "center" timeline is activated (and displayed to the user) while the other two timelines are deactivated (and hidden from the user). Fail: System crashes, doesn't return to a situation with one active and displayed timeline, doesn't copy the information from the "left" timeline to the "center" timeline or copies the information from the wrong ("right") timeline.	Peter	Mac: Mathilde Windows: Peter	25/04

6. Take Loan

Test Case ID	Priority	Description	Input	Pass/Fail criteria	Test designer	Tester	Design Date
takeLoan_1	low	During a scenario, in the loan section of a timeline, if the user does not have an existing loan, they may borrow a maximal amount using the max button.	Click on "Max" button in loan section, then click on "Take loan"	Pass: After "Max" click, text input field is automatically filled with max amount borrowable and "Take loan" button activates. After "Take loan" click, loan (offered)" section converts to "Loan (taken)" section, interest rate becomes fixed, money increases by total loan taken and current debt is displayed equal to max amount borrowable. Fail: System crashes, section fails to change or current debt not equal to max borrowable.	Peter	Mac: Lachlan Windows: Peter	20/04
takeLoan_2	high	During a scenario, in the loan section of a timeline, the user manually inputs a valid amount (integer equal to or lower than max amount borrowable), selects and takes a loan.	Input a valid integer into the text field in loan section, clicks "Select" then "Take loan"	Pass: After "Select" click, "Take loan" button activates. After "Take loan" click, loan (offered)" section converts to "Loan (taken)" section, interest rate becomes fixed, money increases by total loan taken and current debt is displayed equal to amount input. Fail: System crashes, section fails to change or current debt not equal to amount input.	Peter	Mac: Lachlan Windows: Peter	20/04

takeLoan_3	low	During a scenario, in the loan section of a timeline, the user attempts to borrow an amount greater than the max amount. Upon "Select" click, the text field should be	Input an integer greater than max amount borrowable into the text field in the Loan section and clicks "Select".	Pass: After "Select" click, text input field is automatically filled with max amount borrowable. Fail: System crashes or section fails to change.	Peter	Mac: Lachlan Windows: Peter	20/04
takeLoan_4	high	During a scenario, in the loan section of a timeline, the user attempts to type non-numeric values in the text input field.	Input any non-numeric character into the text field in the Loan section.	Pass: No non-numeric characters appear in the field. Fail: System crashes or section is filled with non-numeric characters.	Peter	Mac: Lachlan Windows: Peter	20/04

7. Pay Off Loan

Test Case ID	Priority	Description	Input	Pass/Fail criteria	Test designer	Tester	Design Date
payLoan_1	low	During a scenario, if the user has an existing loan, the user may pay maximal loan back using the "Max" button	Click on "Max" button in loan section, then click on "Pay back"	Pass: After "Max" click, text input field is automatically filled with either money owned or current debt, whichever is lower. After "Pay back" click, current debt is reduced and money are reduced and, if current debt is 0, loan section converts to "Loan (offered)". Fail: System crashes, section is	Peter	Mac: Lachlan Windows: Peter	20/04

				filled with an incorrect amount or information fields do not change correctly.			
payLoan_2	high	During a scenario, in the loan section of a timeline, if there is an existing loan, the user manually inputs a valid amount (integer equal to or lower than money and current debt), selects and pays back loan.	Input an integer lower than money and current debt, click "Select" and click "Pay back"	Pass: After "Select" and "Pay back" click, current debt and money reduces by input amount. If current debt is 0, loan section converts to "Loan (offered)" Fail: System crashes or information fields do not change correctly.	Peter	Mac: Lachlan Windows: Peter	20/04
payLoan_3	low	During a scenario, in the loan section of a timeline, if there is an existing loan, the user attempts to borrow an amount greater than money or current debt.	Input an integer greater than money or current debt in the text field and clicks "Select"	Pass: After "Select" click, text input field is automatically filled with money or current debt, whichever is lower. Fail: System crashes or section fails to change.	Peter	Mac: Lachlan Windows: Peter	20/04
takeLoan_4	high	During a scenario, in the loan section of a timeline, if there is an existing loan, the user attempts to type non-numeric values in the text input field.	Input any non-numeric character into the text field in the Loan section.	Pass: No non-numeric characters appear in the field. Fail: System crashes or section is filled with non-numeric characters.	Peter	Mac: Lachlan Windows: Peter	20/04

8. Buy Stocks

Test Case ID	Priority	Description	Input	Pass/Fail criteria	Test designer	Tester	Design Date
buyStock_1	high	During a scenario, the user attempts to buy 1 share of a stock if they have sufficient money	Click "x1" in the buy part of a stock section	Pass: After "x1" click, money decreases by cost of 1 of chosen stock, volume of stock increases by 1. Fail: System crashes or sections fail to change correctly.	Lachlan	Mac: Mathilde Windows: Peter	15/04
buyStock_2	medium	During a scenario, the user attempts to buy 10 shares of a stock if they have sufficient money	Click "x10" in the buy part of a stock section	Pass: After "x10" click, money decreases by cost of 10 of chosen stock, volume of stock increases by 10. Fail: System crashes or sections fail to change correctly.	Lachlan	Mac: Mathilde Windows: Peter	15/04
buyStock_3	high	During a scenario, the user attempts to buy maximal shares of a stock if they have sufficient money for at least 1 share	Click "Max" in the buy part of a stock section	Pass: After "Max" click, money decreases by cost of max buyable of chosen stock (money/stock price rounded down), volume of stock increases by max. Fail: System crashes or sections fail to change correctly.	Lachlan	Mac: Mathilde Windows: Peter	15/04
buyStock_4	high	During a scenario, the user attempts to buy an amount of shares for which they have insufficient money	Attempt to click "x1", "x10" or "Max"	Pass: The buttons are deactivated (x1 and Max deactivated when insufficient money to buy 1	Lachlan	Mac: Mathilde Windows: Peter	15/04

				share, x10 deactivated when insufficient money to buy 10 shares) and the user cannot click on the buttons.			
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9. Sell Stocks

Test Case ID	Priority	Description	Input	Pass/Fail criteria	Test designer	Tester	Design Date
sellStock_1	high	During a scenario, the user attempts to sell 1 share of a stock if they have sufficient stock volume	Click "x1" in the sell part of a stock section	Pass: After "x1" click, money increases by cost of 1 of chosen stock, volume of stock decreases by 1. Fail: System crashes or sections fail to change correctly.	Lachlan	Mac: Mathilde Windows: Peter	15/04
sellStock_2	medium	During a scenario, the user attempts to sell 10 shares of a stock if they have sufficient stock volume	Click "x10" in the sell part of a stock section	Pass: After "x10" click, money increases by cost of 10 of chosen stock, volume of stock decreases by 10. Fail: System crashes or sections fail to change correctly.	Lachlan	Mac: Mathilde Windows: Peter	15/04
sellStock_3	high	During a scenario, the user attempts to sell maximal shares of a stock if they have at least 1 share of a stock	Click "Max" in the sell part of a stock section	Pass: After "Max" click, money increases by cost of all owned shares of chosen stock, volume of stock decreases by max.	Lachlan	Mac: Mathilde Windows: Peter	15/04

				Fail: System crashes or sections fail to change correctly.			
sellStock_4	high	During a scenario, the user attempts to buy an amount of shares for which they have an insufficient volume	Attempt to click "x1", "x10" or "Max"	Pass: The buttons are deactivated (x1 and Max deactivated when insufficient stock volume is 0, x10 deactivated when stock volume is below 10) and the user cannot click on the buttons.	Lachlan	Mac: Mathilde Windows: Peter	15/04