ASCII Farmer MINI
1 Player Experience
    1.1 Goal: Reach 10,000 Coins as fast as possible
    1.2 What if TRON was a farming game?
2 Story, Art, & Sound
    2.1 The Japanese Stock Exchange needs more Yen symbols for their systems. How fast can you make 10,000 coins growing these crops?
3 Mechanics
    3.1 System Mechanics
        3.1.1 On Page Load
            3.1.1.1 Check for save game
                3.1.1.1.1 If only one save game is present, load game state from the save game and Pause the game
                3.1.1.1.2 If multiple save games are present, pop up the Select Save Game Load Prompt Message
                3.1.1.1.3 Else, proceed with initial conditions
            3.1.1.2 Load Game World
            3.1.1.3 Load Welcome Message
        3.1.2 Messaging Mechanics
        The game communicates information with
        the player via Modal Messages
            3.1.2.1 Welcome Message
            This message appears when the page
            loads from its initial conditions.
                3.1.2.1.1 Triggered By
                3.1.2.1.2 Static Content:
                    3.1.2.1.2.1 Welcome Text
                    3.1.2.1.2.2 Instructions for Play
                3.1.2.1.3 Interactive Content
                    3.1.2.1.3.1 Player Name Field
                        CONSIDER REMOVING
                        3.1.2.1.3.1.1 Input - Text Field
                        Max character
                        length 12 characters Limit to
                        letters, no special symbols.

                        Take more steps to sanitize this input, theoretically this should be the only one.
                            3.1.2.1.3.1.1.1 Input stored as a variable called Player Name
                    3.1.2.1.3.2 Start Button
            3.1.2.2 Milestone Messages
            These messages appear as pop up windows stating the players most recent achievement.

            NB: this modal message DOES NOT STOP the game timer.
                3.1.2.2.1 Triggered By
                3.1.2.2.2 Static Content
                    3.1.2.2.2.1 Congratulations Text
                3.1.2.2.3 Dynamic Content
                    3.1.2.2.3.1 Info: Milestone Type
                    3.1.2.2.3.2 Info: Milestone Amount
                    3.1.2.2.3.3 Flavor Text
                        Pull from random list of quotes?
                3.1.2.2.4 Interactive Content
                    3.1.2.2.4.1 Close Button
                        3.1.2.2.4.1.1 Closes the window
                        3.1.2.2.4.1.2 Keyboard Shortcuts
                            3.1.2.2.4.1.2.1 ESC
                                3.1.2.2.4.1.2.1.1 Closes the window
                                ONLY WHEN MODAL MESSAGE IS PRESENT.
            3.1.2.3 Win Message
                3.1.2.3.1 Triggered By
                    3.1.2.3.1.1 Total Coins Earned = 10,000
                3.1.2.3.2 When Triggered
                    3.1.2.3.2.1 Stop Game Timer
                    3.1.2.3.2.2 Gray background
                    3.1.2.3.2.3 Disable Game World
                3.1.2.3.3 Static Content
                    3.1.2.3.3.1 Win Message Text
                3.1.2.3.4 Dynamic Content
                    3.1.2.3.4.1 Player Name
                    3.1.2.3.4.2 Final Time Length
                3.1.2.3.5 Interactive Content
                    3.1.2.3.5.1 Share Button
                        3.1.2.3.5.1.1 Takes a screenshot of the current game window and copies it to the players clipboard.
                    3.1.2.3.5.2 Reset Button
            3.1.2.4 Pause Message
                3.1.2.4.1 Trigged By
                3.1.2.4.2 Static Content
                    3.1.2.4.2.1 Pause Message Text
                3.1.2.4.3 Dynamic Content
                    3.1.2.4.3.1 Current Game Timer Count
                3.1.2.4.4 Interactive Content
                    3.1.2.4.4.1 Resume Button
            3.1.2.5 Reset Confirmation Message
                3.1.2.5.1 Trigged By
                3.1.2.5.2 Static Content
                    3.1.2.5.2.1 Reset Confirmation Text
                3.1.2.5.3 Interactive Content
                    3.1.2.5.3.1 "Yes" Button
                        3.1.2.5.3.1.1 Continues Reset function
                        3.1.2.5.3.1.2 Closes Reset Confirmation Message
                        3.1.2.5.3.1.3 Keyboard Shortcut:
                            3.1.2.5.3.1.3.1 Enter
                                3.1.2.5.3.1.3.1.1 Closes Reset Confirmation Message
                                3.1.2.5.3.1.3.1.2 Continues Reset function
                    3.1.2.5.3.2 "No" Button
                        3.1.2.5.3.2.1 Closes Reset Confirmation Message
                        3.1.2.5.3.2.2 Keyboard Shortcut:
                            3.1.2.5.3.2.2.1 Esc
                                3.1.2.5.3.2.2.1.1 Closes the window
                                ONLY WHEN MODAL MESSAGE IS PRESENT.
            3.1.2.6 Select Save Game Prompt Message
                3.1.2.6.1 Triggered By
                    3.1.2.6.1.1 Multiple save games present on load
                3.1.2.6.2 Static Content
                    3.1.2.6.2.1 Select Save Game Prompt Message text
                3.1.2.6.3 Interactive Content
                    3.1.2.6.3.1 Player Name Field
                        CONSIDER REMOVING
                        3.1.2.6.3.1.1 Input - Text Field
                        Max character
                        length 12 characters Limit to
                        letters, no special symbols.

                        Take more steps to sanitize this input, theoretically this should be the only one.
                            3.1.2.6.3.1.1.1 Input stored as a variable called Player Name
                    3.1.2.6.3.2 Load Save Button
                        3.1.2.6.3.2.1 If the Player Name matches the name of a save game, load the game state from that save game and pause the game.
            3.1.2.7 New Save Game Prompt Message
                3.1.2.7.1 Triggered By
                    3.1.2.7.1.1 If the Player Name Provided in the Select Save Game Prompt Message does not match any save games
                3.1.2.7.2 Static Content
                    3.1.2.7.2.1 New Save Game Prompt Message Text
                3.1.2.7.3 Dynamic Content
                    3.1.2.7.3.1 Player Name
                3.1.2.7.4 Interactive Content
                    3.1.2.7.4.1 Try Again
                        3.1.2.7.4.1.1 Closes the New Save Game Prompt Message
                        3.1.2.7.4.1.2 Clears the Current Player Name value
                    3.1.2.7.4.2 Start Button
        3.1.3 State Mechanics
            3.1.3.1 Start Button
                3.1.3.1.1 Button Text:
                    3.1.3.1.1.1 START
                3.1.3.1.2 When Clicked:
                    Calls the Start function
                    3.1.3.1.2.1 Dismisses the Welcome Message
                    3.1.3.1.2.2 Activates Game Timer
                    3.1.3.1.2.3 Activates Game World
                    3.1.3.1.2.4 Records the Player Name Input Field as the Player Name variable
                        Tie into Input Sanitization

                        CONSIDER REMOVING
                        3.1.3.1.2.4.1 If Player Name field left blank record player name as "Bean"
                    3.1.3.1.2.5 Create a
                3.1.3.1.3 Keyboard Shortcut:
                    3.1.3.1.3.1 Enter
            3.1.3.2 Pause Button
                3.1.3.2.1 Button Text
                    3.1.3.2.1.1 PAUSE
                3.1.3.2.2 When Clicked
                    3.1.3.2.2.1 Saves the game state
                    3.1.3.2.2.2 Pauses the Game Timer
                    3.1.3.2.2.3 Grays out the interface
                    3.1.3.2.2.4 Pops Up the Pause Modal Message
                3.1.3.2.3 Keyboard Shortcuts
                    3.1.3.2.3.1 P
                    3.1.3.2.3.2 Pause
            3.1.3.3 Resume Button
                3.1.3.3.1 Button Text
                    3.1.3.3.1.1 RESUME
                3.1.3.3.2 When Clicked
                    3.1.3.3.2.1 Dismisses Pause Message
                    3.1.3.3.2.2 Returns Interface to normal
                    3.1.3.3.2.3 Resumes the Game Timer
                3.1.3.3.3 Keyboard Shortcut
                    3.1.3.3.3.1 ESC
            3.1.3.4 Reset Button
                3.1.3.4.1 Pops up the Confirmation Message
                    3.1.3.4.1.1 Break here, only return if Yes is clicked
                3.1.3.4.2 Closes the Win Message Window
                    (If present)

3.2.2.3.3.1 10
3.2.2.4 Crops
    3.2.2.4.1 Item received by progressing a plot through the final 'Ready for Harvest' plot stage
    3.2.2.4.2 Player Starting crop balance
        3.2.2.4.2.1 0
3.2.3 Tool & Upgrade Mechanics
    3.2.3.1 Tool Mechanic s
        3.2.3.1.1 Plow
        The Plow is used for
        3.2.3.1.2 Watering Can
        3.2.3.1.3 Scythe
    3.2.3.2 Upgrade Mechanics
        3.2.3.2.1 Expanded Click
          3.2.3.2.1.1 Expanded Click Mk. 1
          3.2.3.2.1.2 Expanded Click Mk. 2
          3.2.3.2.1.3 Expanded Click Mk. 3
3.2.4 Field & Plot Mechanics
This section defines the mechanics and interactions specific to the individual plots where the player's primary interaction takes place.
    3.2.4.1 Plot Sequences
        3.2.4.1.1 Plot Sequence Requirements
        These elements outline the different types of requirements that
          3.2.4.1.1.1 Water
          Water is required during the growing stages of plot sequences.
          3.2.4.1.1.2 Seeds
          Seeds are required to enter the planted stage of the plot sequence.
          3.2.4.1.1.3 Tools
          Different Tools are required to be the current active tool for different stages in the sequence to activate.
        3.2.4.1.2 Wheat Plot Sequence
        This is the primary sequence each plot goes through
        3.2.4.1.2.1 Stage 1 - Untilled: "~"
        3.2.4.1.2.2 Stage 2 - Tilled: "="
        3.2.4.1.2.3 Stage 3 - Planted: "."
        3.2.4.1.2.4 Stage 4.1 - Growing 1: "\\"
        3.2.4.1.2.5 Stage 4.2 - Growing 2: "|"
        3.2.4.1.2.6 Stage 4.3 - Growing 3: "/"
        3.2.4.1.2.7 Stage 5 - Ready to Harvest: "¥"
        3.2.4.1.2.8 Stage 6 - Fallow Period: "~'"
3.2.5 Store Mechanics
    3.2.5.1 Purchasing Mechanics
        3.2.5.1.1 All purchasing mechanics deduct the cost from the players coin inventory in exchange for the specified amount of either seeds or water refill.
        3.2.5.1.2 Buy Seeds
          3.2.5.1.2.1 1x Seed Button
            3.2.5.1.2.1.1 Cost 1 coin
          3.2.5.1.2.2 Bulk Buy Seeds
            3.2.5.1.2.2.1 3x Seeds Button
              3.2.5.1.2.2.1.1 Cost 3 coins
            3.2.5.1.2.2.2 9x Seeds Button
              3.2.5.1.2.2.2.1 Cost 9 coins
        3.2.5.1.3 Buy Water
          3.2.5.1.3.1 10x Water Refill Button
            3.2.5.1.3.1.1 Cost 1 coin
          3.2.5.1.3.2 Bulk Water Purchase Mechanics
            3.2.5.1.3.2.1 30x Water Refill Button
              3.2.5.1.3.2.1.1 Cost 3 coins
            3.2.5.1.3.2.2 90x Water Refill Button
              3.2.5.1.3.2.2.1 Cost 9 coins
    3.2.5.2 Sale Mechanics
        3.2.5.2.1 All sale mechanics deduct the specified amount of crops from the players crop inventory in exchange for the specified amount of coins.
        3.2.5.2.2 Crop Sales
          3.2.5.2.2.1 1x Crop Sale Button
            3.2.5.2.2.1.1 Sale Price 2 Coins
          3.2.5.2.2.2 Bulk Crop Sales
            3.2.5.2.2.2.1 3x Crop Sale Button
              3.2.5.2.2.2.1.1 Sale Price 6 Coins
            3.2.5.2.2.2.2 9x Crop Sale Button
              3.2.5.2.2.2.2.1 Sale Price 18 coins
3.2.6 Milestone Mechanics
    3.2.6.1 Milestone Value Types
        3.2.6.1.1 Total Coins Earned
        Total Coins Earned Milestone Marker Formula:

        $coinsEarned(n) = 100*2^n$
        3.2.6.1.1.1 Increment for every coin earned by the player from selling crops
        3.2.6.1.2 Total Seeds Purchased
        Total Seeds Purchased Milestone Marker Formula:

        $seedsPurchased(n) = 50 \times (1.33)^n$
        3.2.6.1.2.1 Increment for every seed purchased by the player from the store
        3.2.6.1.3 Total Water Refills Purchased
        Water Refills Purchased

        10 20 30 40 50 60 70 80 90 100 200 300 400 500 600 700 800 900 1000 2000 3000 4000 5000 6000 7000 8000 9000 10000 ....
        3.2.6.1.3.1 Increment for every water refill purchased by the player from the store
        3.2.6.1.4 Total Plots Clicked
        3.2.6.1.4.1 Increment for every time the player clicks on any plot, in any state in the field
        3.2.6.1.5 Upgrade Milestones
          3.2.6.1.5.1 Expanded Click Mk. 1
            3.2.6.1.5.1.1 Unlocked
              3.2.6.1.5.1.1.1 Triggered by Total Coins Earned = 100
            3.2.6.1.5.1.2 Purchased
              3.2.6.1.5.1.2.1 Triggered by the player clicking the Purchase Expanded Click Mk. 1 button in The Store and the game successfully deducting the cost from the players inventory.
                3.2.6.1.5.1.2.1.1 Cost = 100 Coins
          3.2.6.1.5.2 Expanded Click Mk. 2
            3.2.6.1.5.2.1 Unlocked
              3.2.6.1.5.2.1.1 Triggered by Total Coins Earned = 500
            3.2.6.1.5.2.2 Purchased
              3.2.6.1.5.2.2.1 Triggered by the player clicking the Purchase Expanded Click Mk. 2 button in The Store and the game successfully deducting the cost from the players inventory.
                3.2.6.1.5.2.2.1.1 Cost = 500 Coins
          3.2.6.1.5.3 Expanded Click Mk. 3
            3.2.6.1.5.3.1 Unlocked
              3.2.6.1.5.3.1.1 Triggered by Total Coins Earned = 2500
            3.2.6.1.5.3.2 Purchased
              3.2.6.1.5.3.2.1 Triggered by the player clicking the Purchase Expanded Click Mk. 2 button in The Store and the game successfully deducting the cost from the players inventory.
                3.2.6.1.5.3.2.1.1 Cost = 2500 Coins
    3.2.6.2 Milestone Amounts
    These amounts determine when various milestones trigger. When each amount is reached a modal message pops and sometimes other functions that unlock features of the game.
        3.2.6.2.1 Total Coins Earned
        Total Coins Earned Milestones are triggered as the Total Coins Earned value passes each of the following amounts.

        Milestones are only triggered when the related value passes each milestone amount for the first time.

        Any effects unlocked remain so until the game is reset.

        If no additional results are listed, only the modal message is displayed.
        3.2.6.2.1.1 100
          3.2.6.2.1.1.1 Unlock Expanded Click Mk. 1
        3.2.6.2.1.2 500
          3.2.6.2.1.2.1 Unlock Expanded Click Mk. 2
        3.2.6.2.1.3 1000
        3.2.6.2.1.4 2500
          3.2.6.2.1.4.1 Unlock Expanded Click Mk. 3
        3.2.6.2.1.5 5000
        3.2.6.2.1.6 7500
        3.2.6.2.1.7 10000
          3.2.6.2.1.7.1 Triggers Win Message
        3.2.6.2.2 Total Seeds Purchased
        3.2.6.2.2.1 100
          3.2.6.2.2.1.1 Unlocks Purchase 3x Seeds
        3.2.6.2.2.2 1000
          3.2.6.2.2.2.1 Unlocks Purchase 9x Seeds
        3.2.6.2.2.3 2000
        3.2.6.2.2.4 3000
        3.2.6.2.2.5 4000
        3.2.6.2.3 Total Water Refills Purchased
        3.2.6.2.3.1 100
          3.2.6.2.3.1.1 Unlocks Purchase 30x Water
        3.2.6.2.3.2 1000
          3.2.6.2.3.2.1 Unlocks Purchase 90x Water
        3.2.6.2.3.3 2000
        3.2.6.2.3.4 3000
        3.2.6.2.3.5 4000
        3.2.6.2.3.6 5000
        3.2.6.2.3.7 6000
        3.2.6.2.3.8 7000
        3.2.6.2.3.9 8000
        3.2.6.2.3.10 9000
        3.2.6.2.3.11 10000
        3.2.6.2.4 Total Plots Clicked
        3.2.6.2.4.1 1000
        3.2.6.2.4.2 2500
        3.2.6.2.4.3 5000
        3.2.6.2.4.4 10000
        3.2.6.2.4.5 25000
        3.2.6.2.4.6 50000
        3.2.6.2.4.7 100000
        3.2.6.2.4.8 250000
        3.2.6.2.4.9 500000
        3.2.6.2.4.10 1000000
    3.2.6.2.5 Upgrade Milestone Variable Checks
        3.2.6.2.5.1 Expanded Click Mk. 1
          3.2.6.2.5.1.1 Unlocked
            3.2.6.2.5.1.1.1 0 = not unlocked
            3.2.6.2.5.1.1.2 1 = Unlocked
          3.2.6.2.5.1.2 Purchased
            3.2.6.2.5.1.2.1 0 = not purchased
            3.2.6.2.5.1.2.2 1 = purchased
        3.2.6.2.5.2 Expanded Click Mk. 2
          3.2.6.2.5.2.1 Unlocked

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│ │ ├ 3.2.6.2.5.2.1.1 0 = not unlocked
│ │ └ 3.2.6.2.5.2.1.2 1 = Unlocked
│ └ 3.2.6.2.5.2.2 Purchased
│   ├ 3.2.6.2.5.2.2.1 0 = not purchased
│   └ 3.2.6.2.5.2.2.2 1 = purchased
3.2.6.2.5.3 Expanded Click Mk. 3
│ ├ 3.2.6.2.5.3.1 Unlocked
│ │ ├ 3.2.6.2.5.3.1.1 0 = not unlocked
│ │ └ 3.2.6.2.5.3.1.2 1 = Unlocked
│ └ 3.2.6.2.5.3.2 Purchased
│   ├ 3.2.6.2.5.3.2.1 0 = not purchased
│   └ 3.2.6.2.5.3.2.2 1 = purchased
3.2.6.2.5.4 Expanded Click Mk. 4
  ├ 3.2.6.2.5.4.1 Unlocked
  │ ├ 3.2.6.2.5.4.1.1 0 = not unlocked
  │ └ 3.2.6.2.5.4.1.2 1 = Unlocked
  └ 3.2.6.2.5.4.2 Purchased
    ├ 3.2.6.2.5.4.2.1 0 = not purchased
    └ 3.2.6.2.5.4.2.2 1 = purchased
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