Build Baccarat Scoreboards for Game Display

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1. Project goal

The project goal is to display 5 scoreboards in baccarat game. YOU WILL NOT BE DESIGNING THE CARD GAME, just the scoreboards. Everything will make sense as you read below.

While you will need to do a bit of research on how the scoreboards work, this article: <https://medium.com/@taaniel.sylla/baccarat-scoreboards-d994a22989d9> is very useful to getting started after you understand about the scoreboards. Ignore everything after “The Predictor board” section.

2. Project scope

This project does not include the card game part.Instead, it only contains the display part (the scoreboards) and the inputs that will be used to manually fill the Bead Road and BIG ROAD scoreboards.

The following are the five displays (scoreboards) in baccarat game:

(1) bead road

(2) big road (most work)

(3) big eye boy road

(4) small road

(5) cock roach road

Among them, (1) bead road and (2) big road are the record of game history or results, other displays including (3) big eye boy road, (4) small road, and (5) cock roach road all are derived from (2) big road.

Along with the inputs required on the screen, this project also contains a display to show relevant statistic data (explained at the end). The data also needs to be saved in a database and as a downloadable file to be reuploaded.

3. Layout (4 main parts)

1. Header (Title, File, Save)

Title: “Baccarat Road Display”

File: A drop-down menu will allow me to choose which saved board will be used to fill the board. There should be a delete option next to each saved board option.

Save: Will save the current state of the board to the database. A pop-up box will ask me to name the board before actually saving it. Each save is a different entry.

(2)Top-level inputs (Main inputs, Undo, Redo, Toggle Button)

Main Inputs: Three buttons can be clicked to input the game results into the display system (scoreboards) AND the results need to be able to be keyed in with "1" (banker), "2" (player), and "3" (tie). When one of the 3 buttons or keys are pressed, the big road and bead road will start to fill up from the top leftmost corner.

Undo, Redo: An undo button to only revert the last action (store only the most recent action) either from “Main inputs” or right-click menu actions. A redo button to revert the undo. Please key themto standard undo and redo keys with CTRL+Z and CTRL+Y, respectively.

Toggle Button: It is either in “Buttons” mode OR “Mouse” mode. Cannot edit with Main Inputs and right-clicks at the same time. The Mouse is not restricted sequential filling, but the Main Inputs are. Main Inputs will start with where the last chip the Mouse has filled in.

\*\*\* Toggling logic: First start with Main Inputs. The Toggle Button will read “Mouse”. Both bead and big roads will fill at the same time. If switch to Mouse Mode, when big road is filled and edited, the bead road will not register anything. If there are any illegal white spaces between the columns in the big road (when the first row does not connect all the columns), both the Mode Toggle button and Generate button will be disabled. If the first row connects everything legally, I can click the toggle button (which says “Buttons”) and go back to using the Main Inputs. When I click the toggle button to go back to using Main Inputs, the bead road will be updated to reflect the same pieces that are on the big road. Then the Main Inputs will start filling from the most recent game.

(3) Boards, Statistical Display, and inputs (Generate, Reset)

Boards and Statistical Display: Display the boards in the order from top to bottom: bead road, big road, big eye boy road, small road, cock roach road, and bead road.See the “Baccarat Webpage” example to see where they all go. A small table will do for the statistical display. “Display for statistical data” section will go over what to contain.

Generate: Only way to generate the big eye boy, small, and cockroach. Because mouse input can create chip results in a nonsequential order, the generate button will be deactivated until the columns are all connected through the first row.

Reset: Clear all the chips in all the score boards.

(4) Bottom-level inputs (Browse …, upload, download)

Browse: Select file from local computer to upload to the webpage

Upload: Read the file and fill the bead and big roads with the chips.

Download: Save the current state of the big road into a file and make it downloadable from the browser.

4.Bead road:

Bead Road board is a 6 (rows) x 60 (columns) grid and the actual record of game history, it filled up from the left top corner to down the column. each game result ("banker", "player", or "tie") will occupy a cell with red solid circle representing banker win, blue solid circle representing player win, and green solid circle representing banker and player even, according to the sequence of input. After the left most column filled, it will start filling the second most left column, and so on.

5. \*\*\*Big road (see other attachments for examples and clarification)

Big road is also a 6 (rows) x 60 (columns) grid and the actual record of game history, but it is filled up differently. The buttons or inputs for inserting game results will go in consecutive order from top to bottom and left to right depending on the results.

Below is the simple logic for Main Inputs:

a) If the first input is "banker", the top cell of the left most column of the board will be filled with a red hollow circle. the column will be "banker" column, and consecutive "banker" inputs will move down the column until a "player" input occurs.

When a "player" input encountered, it will start filling new column, and consecutive "player" will move down the column.

we will discuss the situation "dragon tail" later in d), in which the filling of input when the number of input exceeds 6, the length of a column.

if a "tie" appears after a "banker", a green slash will be placed in the current cell (square) (the last one to be drawn in). if there are consecutive "ties" occurring, the current cell will be shown with a green number indicating the number of consecutive ties (if there is more than one “tie”).

b)if the first input is "player" the filling of the board start from the left top corner, is similar to a).

c) if the first input of the game is "tie", a green slash is presented in thetop leftmost corner, if the second input of the game is still a "tie", then the cell will have a green slash and a green number "2", etc. When a “banker” or “player” input is then finally given, the square right below it will be drawn with the corresponding hollow circle.

- The situation of long consecutive bankers or players called "Dragon tail" and representation of the dragon-tail worth special attention. Please find the discussion in the reference.

\*\*\* The "Big Road" NEEDS TO BE ABLE TO BE EDITED WITH THE MOUSE. See attachments for this.

6.Three "derived" roads:

The Big eye boy road, small road, and cockroach road are derived from the Big Road. The reference has clearly discussed the rules governing the derivation and the algorithm for generating the "derived" roads.

These three boardsare also 6 (rows) x 60 (columns) grids, the only difference in display compared to the bead road and big road is that the “derived” roads chips are supposed to be ½ the size of the bead road and big road chips.

7. Display for statistical data:

The number of "banker" (win), "Player" (win), "tie", and the total number of plays ("hands") shall be displayed in this portion. The data should change as legal edits happen in the big road.

8. Programming language and database

A save button to store the current bead board into a database, so that in the future I can choose from a menu to fill the big road, and the big road will be able to regenerate all the pieces that I have put down already. Then when I click the custom refresh button, all the other four boards will be generated. I want the data to be in database and can be saved onto my computer as files that I can upload. So, a menu for the database, but also download/upload the data as files somehow.

9. Extra Requirements

The system is expected to be designed/written mainly in JavaScript and related tools. I might put the website on a server in the future, but I am just going to run it locally for now. (I would like everything to be done within 2 weeks). Everything is written from scratch, NO ASSETS provided. YOU ARE NOT BUILDING THE CARD GAME, just the scoreboards with the requirements. This “game” is 2D.