EECS 448 Team 14

Project 4 Code Review

Our team conducted a Document-driven Walkthrough for our code review. As a team we analyzed three code artifacts and read through each individual function of all the code blocks. The person who coded the function then described how it works and what their thought process and reasoning was when programming it. Any faults that were found during the review were listed in the defect list, with some small enough to be fixed on the spot which was convenient for us.

Code artifact: gameplay.js

- This contains the core gameplay loop that runs the game rounds and calls all the helper functions for choosing and removing briefcases and accepting or declining offers.

- Also contains calculations for the Banker's offer and options for selecting either US rules or UK rules. Most of the features that the player is able to interact with are define here.

Code artifact: main.js

- Handles the buttons on the homepage for selecting US or UK rules and the selection of briefcases during the main game.

- Event listeners for each feature, calls div elements by ID and then calls corresponding helper function.

Code artifact: render.js

- Manages the rendering of all the briefcases and rests the page and DOM when starting a new game.

- Using string literals for specific function calls, for readability & consistently with other functions:

  - caseElid = 'case${caseNumber}'; (render.js, 17)

Bug 3 was discovered and fixed earlier but was highlighted to be discussed by the team during this code review, since there were concerns about it messing up the gameplay loop but the issue was resolved during review Bug 4 was discovered during the code review and was able to be corrected immediately. The Banker now offers more consistent amounts of money depending on the status of the game, such as the amount of money in the player briefcase and the amounts in the remaining briefcases.

Defect List - Bug 1:
- Reported: Dom, 11/13
- Fault: Tried to remove case 22 in UK rules, got TypeError, cannot read properties of undefined (reading toLocaleString). Seems to be in the formatMoney method.
- Fixed: 11/13
- Fixed by: Gage
- Fix Description: when migrating legacy code missed changing a US global variable to UK global variable. Changed variable fixed problem.

Bug 2:
- Reported: Gage, 11/13
- Fault: Code Review Bug, expectedPayout and bankOffer expected ruleset parameters for different formulas but were not passed in the ruleset
- Fixed: 11/13
- Fixed by: Gage
- Fix Description: gave functions ruleset input and inputted the proper ruleset in their calls.

Bug 3
- Reported: Gage, 11/14
- Fault: Game doesn't truncate decimals properly when displaying money values, shows 3 decimals instead of 2
- Fixed: N/A, not an urgent or critical issue
- Fixed by: N/A
- Fix Description: N/A
    - Maintenance plan details possible ways to fix for the future
    - When we start making money then it'll be fixed

Bug 4:
- Reported: Dom, 11/18
- Fault: When playing the game with UK rules, banker offers £0
- Fixed: 11/18, during code review
- Fixed by: Dom
- Fix Description:
    - expectedPayout function was passed incorrect value (line 406), now value is correct
    - bankoffer calculation changed (line 418)