

CPI 101 Homework #2: Yahtzee Lite

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Big Picture: You will develop an interactive, event-driven HTML application in JavaScript that presents a modified Yahtzee dice game. In this game, a player rolls five dice up to three times with the goal of rolling a large straight, achieved with die values 1,2,3,4,5 or 2,3,4,5,6. The player begins the game by clicking a Play button, causing a roll of the five dice. Subsequent rolls are made with the Roll button. After the first and second rolls, the player can choose to keep one or more of the die at the current value. This is implemented with “Keeper” buttons.

Detailed specifications are provided below.

Concepts:

- JavaScript programming: syntax, conditionals, for loops, functions, etc.
- JS event programming / program organization
- Debugging
- HTML events
- HTML and CSS

Details:

Program Organization

- Build your application based on the codes supplied to you.
- You may add more functions, but you must complete all the functions in the given js file.
- See the js code for “TO DO”.
- You must comment your code.

HTML/CSS:

- Follow the instructions in the current HTML page.
- Improve the look of the current page by adding to the existing CSS file.
- At minimum, you are expected to use different fonts and colors.
- Improve the buttons by adding colors or other effects.
- You may rearrange the content or add more content.
- You must create “messages” that communicate the current game status, such as
 - “Click Play ...”, “Click Roll ...”, “You win ...”, “You lose ..”
- You must create a “gameOvermessage” that appears only when the game is over.

User Interaction and Functionality:

- See the Big Picture section above for additional information.
- When the game is loaded, all text and buttons appear, but no dice appear.
- Once loaded, the Play button must be enabled.
- When the Play button is enabled, the Roll button should be disabled.
- When the Roll button is enabled, the Play button should be disabled.

- All Keeper buttons are enabled for selection after the first roll. Once clicked, the text on the button changes from “keep?” to “keeper”. For simplicity, once clicked, it cannot be changed to “keep?” during the current game.
- When the game is over, the last dice and Keeper button status remain displayed on the page and the Play button must be enabled.

Tips:

- The class demo programs provide good examples for implementing the functionality.
- See w3Schools for good JS tutorials.
- Get help early! Don’t hesitate to email the instructor or TA for guidance.
- Make a plan. Take baby steps. Print out everything (console.log).
- Comment your code. This will help you think about what you are programming and you will have a better chance for partial credit if some functionality does not work 100%.
- Come to class for more tips.

Turn-in Guidelines

1. Keep the file names as they are.
2. Add your name at the top of each file you modified.
3. Zip all your files into LastnameFirstInitial_HW2.zip.
4. Turn in your assignment on Canvas.