

# Project #1: Yahtzee!

**DUE DATE: Mar 3<sup>rd</sup> by 12pm**

Your objective is to create a JavaScript simulation of a two-player “Rapid” game of Yahtzee using the following rules:

- 1) Each player must have a **name**
- 2) Each player gets **10 turns**
- 3) Each turn includes **5 dice rolled**, but not every die will be used to score each round.
  - a. There will not be a second roll per round like in typical Yahtzee.
- 4) Each **turn score** should be the highest possible score based on the Scoring Chart below.
  - a. Each roll is independent of the previous roll, so duplicate types of scores should be counted.
- 5) A player’s total score will be cumulative of each round played.
- 6) The winner will be determined by which player has the larger total score at the end of their respective 10 rolls.

## SCORING CHART

DISPLAY NAME	DICE COMBO	POINT VALUE
Straight	1 , 2 , 3 , 4 , 5 or 2, 3, 4, 5, 6	100 Points
YAHTZEE! (5 of a Kind)	All 5 dice are the same	100 Points
4 of a Kind	4 of the 5 dice are the same	75 Points
3 of a Kind	3 of the 5 dice are the same	50 Points
Chance	Total of all dice rolled	Varies

The coding requirements of this project include:

- 1) Must use at least one custom function
- 2) Must use constants to store and display the players’ names
- 3) Must use variables and/or arrays to store the dice variables
- 4) Must use Math.random() function to generate the value of each die during each roll
- 5) Must follow the output display (back of the paper) while executing the simulation.
  - a. **Anything in bold in output should be replaced by your output variables**

## Turning in the Assignment:

- 1) You must use Playcode.io as your development environment
- 2) You must save and submit your work via Playcode.io share function
  - a. Name the project: **LastName\_FirstInitial\_Yahtzee**
  - b. File menu > Share then copy and paste the Code + Result View URL into the submission Blackboard.
- 3) **No other file or submission type will be accepted.**

## REQUIRED OUTPUT FORMAT:

Today's Yahtzee match-up is: NAME1 vs. NAME2

===== Round 1 =====

**NAME1** rolled: **1, 4, 4, 6, 6**

**NAME1** scored **Chance: 21** points

**NAME1** current total score: **21** points

**NAME2** rolled: **3, 3, 3, 2, 2**

**NAME2** scored **Three of a Kind: 75** points

**NAME2** current total score: **75** points

===== Round 2 =====

**NAME1** rolled: **5, 5, 5, 5, 5**

**NAME1** scored **YAHTZEE!: 100** points

**NAME1** current total score: **121** points

**NAME2** rolled: **5, 3, 4, 2, 1**

**NAME2** scored **Straight: 100** points

**NAME2** current total score: **175** points

.... .... Repeat for 8 more rounds ... ....

===== FINAL SCORE =====

**NAME1** scored: **675** points

**NAME2** scored: **775** points

**NAME2** is the winner!