

# **The Slot Machine**

# By Dr. Bradford A. Towle Jr. Graphics

### 1. <u>Objectives</u>

- A. To have more practice with OOC and JavaScript
- B. To be capable of adding HTML elements from JavaScript.

### 2. Equipment

A. A computer that has Notepad ++ and a modern web browser

### 3. <u>Lab Preparation</u>

A. Make sure you understand how to dynamically add a component to an HTML page.

### 4. <u>Lab Instruction</u>

- A. This project will have two different classes
  - a. Main
  - b. Slot Machine

#### B. Main class

- a. The Main class will have the following class variables
  - i. Money (Initially set to 100)
  - ii. An array of slot machine instances
- b. The main constructor will dynamically add a section tag to the document
  - i. This will be used to print the output
- c. The main constructor will also initialize the slot machine array with 1 instance of the slot machine.
- d. The main class will also have a function called PlayAll
- e. If the 'play' button is pressed, then subtract 1 from the current value of Money (make sure it is above 0) and then iterate through the slot machine array and call their respective play function.
- f. It will then poll all the slot machines and sum the last amount won.
  - i. If is > than 0 then have the word "winner" and the summed amount won displayed in the section that the main class created
  - ii. Else display "Game Over"
- g. Add any winnings to the total money.

#### C. Slot Machine Class

- a. This class will have the following class variables
  - i. The last amount won
  - ii. A list of three numbers
  - iii. A list of three HTML image objects

#### b. Constructor

- i. The slot machine constructor will dynamically add three HTML images to the document and then store them to the image list.
  - 1. Each Image will be 64X64 pixels).
- ii. The last amount won will be initialized to 0.

- c. Play
  - i. When play is called the slot machine will pick three numbers and populate the number list.
    - 1. The slot machine will randomly choose between 0 and 6 inclusive.
  - ii. Make sure you have seven images
    - 1. Each image will correspond to a certain number between 0 and 6.
  - iii. Change the HTML image src parameter to the correct image for the appropriate number.
    - 1. For example, if the number list contains [5,5,4]
    - 2. The first two images will be the same (that correspond to 5)
    - 3. The third image will have the src set to the appropriate image for 4.
  - iv. Slot machine awards are evaluated left to right. Therefore, ORDER DOES Matter
  - v. Also, you can ONLY win the top award in a slot machine.
    - 1. For example if you get three 0's you do NOT get the two 0's or one 0's award.
  - vi. The play function will set the last amount won according to the following table:
- D. After the script that initializes main is run create an HTML button that will call back to a global function which will call the main instance PlayAll
  - a. This button should be labeled "play"
- E. Phase 2
  - a. Alter the constructor in Main so you make 3 slot machine instances instead of just 1
  - b. If you coded the main class correctly you should not have to change anything in it.

Description	Values in the number array	Amount Won	
Three 0's	[0,0,0]	14	
Three of any other number (not	[X,X,X] Where X is the same	7	
0)	non-zero number		
Two 0's (left and center)	[0,0,X] Where X is not a 0.	3	
Two of any other number in the	[X,X,-] Where X is the same	2	
left and the center	non-zero number		
If the left value is 0	[0,-,-]	1	
Any other combination		0	

### 5. Lab Rubric

	Perfect	Logic Errors or	Syntax errors or not
		Incomplete	attempted.
Slot machine class	10	5	0
implemented correctly			
Main class implemented	10	5	0
correctly			
Awards are correct	10	5	0
Images and outputs are	10	5	0
correct			
Total	/40		

# 6. <u>Lab Report Requirements</u>

There is no lab report due for this assignment but there is a peer review.