Project 5: Mascots Game, redux Using Objects to generate results on the fly

Overview

As promised, you will revise your Mascots Game (from Project 3) by augmenting your representation scheme to use Objects to encode essential data/relationships:

- You will represent the "association" between each University and its Mascot as an Object.
- Your will represent each "round of play," as an Object that records the user's response, the correct (expected) response, and the running score.

These are two distinct Object types, and both will reside in separate arrays of objects.

By doing this, it will be easier for you to modify your original HTML and CSS files to provide for an area at the bottom of the page reserved for the generation of a table containing results of each user interaction from the beginning of the current game until either the user exits by choosing the "Exit" button or the user completes all of the questions. Here are some screenshots showing that new area and how it may appear:

file:///Users	s/tomreinhardt/Dropbox/	CMSC122/Projects-TomF	/Project5/start.html	¢	0 1 7 +
	Mas	cots Game			
You will be given a Unive Mascots. You are awarded each incorrect response. N	l one point for ea	ich correct respo	nse, and you lose one po	bint for	
Game Over: your score is	1 out of a total	of 2 out of 4 poss	sible attempts.		
n 1/					
Results					
			Score (cumulative)		
University of Michigan University of Wisconsin		withheld Badgers	0		
W3C css					

In this display, the user exited after the second question, choosing "Don't Know" for the first question and getting the correct response for the second question.

One way to think of the design strategy is to consider each table entry as a textual visualization of the data contained by each "Object" that your program creates in response to a "round" of play. The "array" of response objects, therefore, contains a "history" of questions, responses, and cumulative scores.

Continuing in that vein, suppose that the user completed the game with a perfect score; we should expect something that looks a lot like:

file:///User	s/tomreinhardt/Dropbox/C	CMSC122/Projects-TomP	/Project5/start.html	Ċ	•••+
	Maso	cots Game			
You will be given a Univ Mascots. You are awarde each incorrect response. N Read your score below Game Over: your score in	l one point for ea Note: choosing "d v:	ch correct respo lo not know" lea	nse, and you lose one po ves your score unchange	oint for	
Results University University of Michigan University of Wisconsin University of Oklahoma	Wolverines Badgers	Actual mascot Wolverines Badgers Sooners	Score (cumulative) 1 2 3		
University of Nebraska		Cornhuskers	4		

(By the way, the "Read you score below:" text that appears in the Prompt Button is purely optional ... your implementation may choose to do something different, as long as it's correct.)

And, of course, our logic needs to account for intermediate results. For example: suppose that the player does not know the first question, answers the second question correctly, and then exits the game. We should then show:

file:///Use	rs/tomreinhardt/Dropbox/CMSC122/Projects-To	mR/Project5/start.html	Ċ	0 1 0 +
	Mascots Game			
Mascots. You are awarde	rersity and asked to select its Ma od one point for each correct resp Note: choosing "do not know" le	onse, and you lose one point	nt for	
Game Over: your score	is 1 out of a total of 2 out of 4 po	ssible attempts.		
Results				
University University of Michigan University of Wisconsin		t Score (cumulative) 0 1		
W3C ces				

Note that the table is "dynamically generated."

The Details ...

I suggest that you define two arrays of different object types.

The first array holds objects that embody a "pair," which is common is Computer Science; you've seen such "pairings" all semester. Your pairing might be [University, Mascot], where University and Mascot are Strings. Use this array to "generate" the next question in response to the user clicking on the prompt button. When no more pairs are available, the game is over.

The second array will contain objects that embody the information that appears in the results table that you will generate upon the user's exiting the game. Be careful not to give away the correct answers too easily. Suppose the user "doesn't know anything" then we should expect something that appears as:

Hacots Game Bread your score below: Read your score below: Game Over: your score is 0 out of a total of 4 out of 4 possible attempts. Excuts Duriversity of Michigan Declined Withheld 0 University of Michigan Declined Withheld 0 0 University of Necknaw Declined Withheld 0 0	file:///L	Jsers/tomreinhardt/Dropbox/CMSC122/Projects-Tom	R/Project5/start.html	Ċ	O Ó
Mascots. You are awarded one point for each correct response, and you lose one point for each incorrect response. Note: choosing "do not know" leaves your score unchanged. Read your score below: Game Over: your score is 0 out of a total of 4 out of 4 possible attempts. Results Nuiversity of Michigan Declined Vithheld 0 University of Michigan Declined Withheld 0 University of Oklahoma Declined Withheld 0 University of Oklahoma Declined Withheld 0 University of Oklahoma Declined Withheld 0		Mascots Game			
Results University Your response Actual mascot Score (cumulative) University of Michigan Declined Withheld 0 University of Wisconsin Declined Withheld 0 University of Oklahoma Declined Withheld 0 University of Nebraska Declined Withheld 0	Mascots. You are awar each incorrect response Read your score be	ded one point for each correct respo e. Note: choosing "do not know" lea low:	nse, and you lose one p ves your score unchang	point for	
UniversityYour responseActual mascotScore (cumulative)University of MichiganDeclinedWithheld0University of WisconsinDeclinedWithheld0University of OklahomaDeclinedWithheld0University of NebraskaDeclinedWithheld0			•		
UniversityYour responseActual mascotScore (cumulative)University of MichiganDeclinedWithheld0University of WisconsinDeclinedWithheld0University of OklahomaDeclinedWithheld0University of NebraskaDeclinedWithheld0					
University of MichiganDeclinedWithheld0University of WisconsinDeclinedWithheld0University of OklahomaDeclinedWithheld0University of NebraskaDeclinedWithheld0	Results				
University of Wisconsin Declined Withheld 0 University of Oklahoma Declined Withheld 0 University of Nebraska Declined Withheld 0			Score (cumulative)]	
University of Oklahoma Declined Withheld 0 University of Nebraska Declined Withheld 0					
University of Nebraska Declined Withheld 0					
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	W3C css				

And, of course, if the user knows everything, then they have

file:///Use	rs/tomreinhardt/Dropbox/C	CMSC122/Projects-Tom	//Project5/start.html	Ċ	0	
	Masc	cots Game				
You will be given a Univ Mascots. You are awarde each incorrect response.	d one point for each	ch correct respo	nse, and you lose one p	point for		
Read your score below	w:					
Game Over: your score i	is 4 out of a total o	of 4 out of 4 pos	sible attempts.			
Results						
Results University	Your response	Actual mascot	Score (cumulative)			
University University of Michigan	Wolverines	Actual mascot Wolverines	Score (cumulative)			
University University of Michigan University of Wisconsin	Wolverines Badgers	Wolverines Badgers	1 2			
University University of Michigan University of Wisconsin University of Oklahoma	Wolverines Badgers Sooners	Wolverines Badgers Sooners	1 2 3			
University University of Michigan University of Wisconsin	Wolverines Badgers Sooners	Wolverines Badgers	1 2			
University University of Michigan University of Wisconsin University of Oklahoma University of Nebraska	Wolverines Badgers Sooners	Wolverines Badgers Sooners	1 2 3			
University University of Michigan University of Wisconsin University of Oklahoma	Wolverines Badgers Sooners	Wolverines Badgers Sooners	1 2 3			
University University of Michigan University of Wisconsin University of Oklahoma University of Nebraska	Wolverines Badgers Sooners	Wolverines Badgers Sooners	1 2 3			
University University of Michigan University of Wisconsin University of Oklahoma University of Nebraska	Wolverines Badgers Sooners	Wolverines Badgers Sooners	1 2 3			
University University of Michigan University of Wisconsin University of Oklahoma University of Nebraska	Wolverines Badgers Sooners	Wolverines Badgers Sooners	1 2 3			
University University of Michigan University of Wisconsin University of Oklahoma University of Nebraska	Wolverines Badgers Sooners	Wolverines Badgers Sooners	1 2 3			

Naturally, your logic should be able to generate tables that provide for all of the possible response combinations (given 4 University/Mascot pairs and 5 possible responses, how many possible tables could we generate?).

Submission Guidelines

How you will be graded.

- Naturally, we will be looking for your definition and use of JavaScript Objects where your earlier implementation may have relied upon nested if-statements, or some other ad hoc algorithm.
- We will also be looking at how your JavaScript interacts with your CSS tags to show and hide HTML elements based upon game flow/interactions.