Am I Ready For My App Academy Technical Interview?
Self-Assessment (JavaScript)

1. Do I have the technical skills?

Make sure you can answer "YES!" to the following questions.

Can I…?

- ❏ Iterate through each character of a string?
- ❏ Iterate through each element of an array, accessing elements and indices?
- ❏ Iterate through each element of an object, accessing keys and values?
- ❏ Use an integer counter and object counter strategy to count items?
- ❏ Break out of a loop early if necessary?
- ❏ Use conditional logic appropriately (*if, if/else, if/else if/else*)?
- ❏ Decide when I should use these skills to solve a problem?
- ❏ Walk through the execution of my code, keeping track of the values in any given variable at any given time?

Not ready yet? Practice the JavaScript fundamentals, guided by the skills list above, or consider enrolling in the Bootcamp Prep program.

2. Can I apply the skills to solve problems?

Make sure you can come up with a strategy, and implement the code, to solve all of the following sample problems.

Aba Translate

Aba is a German children's game where secret messages are exchanged. In Aba, after every vowel we add "b" and add that same vowel.

Write a method `aba_translate` that takes in a sentence string and returns a new sentence representing its Aba translation. Capitalized words of the original sentence should be properly capitalized in the new sentence.

aba_translate("Cats and dogs") #=> "Cabats aband dobogs"

aba_translate("Everyone can code") #=> "Ebeveryobonebe caban cobodebe"

aba_translate("Africa is Africa in German") #=> "Abafribicaba ibis Abafribicaba ibin Gebermaban"

Adjacent Sum

Write a method `adjacent_sum` that takes in an array of numbers and returns a new array containing the sums of adjacent numbers in the original array.

adjacent_sum([3, 7, 2, 11]) #=> [10, 9, 13], because [3+7, 7+2, 2+11]

adjacent_sum([2, 5, 1, 9, 2, 4]) #=> [7, 6, 10, 11, 6], because [2+5, 5+1, 1+9, 9+2, 2+4]

Combinations

Write a method `combinations` that takes in an array of unique elements, and returns a 2D array representing all possible combinations of 2 elements of the array.

combinations(["a", "b", "c"]); # => [["a", "b"], ["a", "c"], ["b", "c"]]

combinations([0, 1, 2, 3]); # => [[0, 1], [0, 2], [0, 3], [1, 2], [1, 3], [2, 3]]

Element Replace

Write a method element_replace that takes in an array and an object. The method should return a new array where elements of the original array are replaced with their corresponding values in the object.

arr1 = ["LeBron James", "Lionel Messi", "Serena Williams"]
obj1 = {"Serena Williams"=>"tennis", "LeBron James"=>"basketball"}

element_replace(arr1, obj11) # => ["basketball", "Lionel Messi", "tennis"]

arr2 = ["dog", "cat", "mouse"]
obj2 = {"dog"=>"bark", "cat"=>"meow", "duck"=>"quack"}

element_replace(arr2, obj2) # => ["bark", "meow", "mouse"]

Not ready yet? Practice applying your skills everyday using CodeWars.

If you have the skills and can solve these problems, you are ready to schedule your Technical Interview!