**Code Academy**

**Whale Talk – Project**

1. Create a variable named input that is equal to any phrase you’d like. This variable will contain the text you want to translate into ‘whale talk.’

*let* input = 'Hello, my name is Dylan and I am a dog!';

2. Whales only speak with vowels. Create an array named vowels and populate it with…vowels!

*const* vowels = ['a', 'e', 'i', 'o', 'u'];

3. Create a variable named resultArray and set it equal to an empty array. This will serve as a place to store the vowels from the input string.

*let* resultArray = [];

4. Create a loop to iterate through each letter of the input variable text.

//Loop to iterate through each letter of the input variable text.

for (*let* i = 0; i < input.length; i++) {

console.log(input[i])

};

5. Create a nested loop to iterate through each letter of the vowel variable. Nest it within the for loop for the input.

for (*let* i = 0; i < input.length; i++) {

console.log(input[i]);

for (*let* b = 0; b < vowels.length; b++) {

console.log(vowels[i]);

}

};

6. Inside the for loop, write a code block that compares the input letter to every letter in the vowels array. Push the results into the resultArray.

for (*let* i = 0; i < input.length; i++) {

for (*let* b = 0; b < vowels.length; b++) {

if (vowels[b] === input[i]) {

resultArray.push(vowels[b]);

};

};

};

7. Whales double their e’s and the u’s in their language. Write an if statement that checks if each letter in the input string is equal to ‘e’. If so, use the .push() method to add input[i] to the resultArray.

//Loop to iterate through each letter of the input variable text.

for (*let* i = 0; i < input.length; i++) {

if (input[i] === 'e') {

resultArray.push(input[i]);

}

for (*let* b = 0; b < vowels.length; b++) {

if (vowels[b] === input[i]) {

resultArray.push(vowels[b]);

};

};

};

Note: This statement must belong before the inner for loop block, inside the outer for loop. This is because we only want to perform this check once for every letter within the input.

8. Double the u’s. Whales only double ‘e’s and ‘u’s.

for (*let* i = 0; i < input.length; i++) {

if (input[i] === 'e' || input[i] === 'u') {

resultArray.push(input[i]);

};

Simple if statement to evaluate whether the conditions are true. They will then push the results to the resultArray.

9. Currently, resultArray outputs an array of characters. To produce proper whale language, we want to capitalise the array elements and put them together as one string. Declare a variable ‘resultString’ that joins our resultArray into a single string and capitalises all of its letters.

*let* resultString = resultArray.join('').toUpperCase();

console.log(resultString);

**Final Code Block**

*let* input = 'Why hello there. My name is Dylan and I am a cheeky dog.';

*const* vowels = ['a', 'e', 'i', 'o', 'u'];

*let* resultArray = [];

//Loop to iterate through each letter of the input variable text.

for (*let* i = 0; i < input.length; i++) {

if (input[i] === 'e' || input[i] === 'u') {

resultArray.push(input[i]);

};

for (*let* b = 0; b < vowels.length; b++) {

if (vowels[b] === input[i]) {

resultArray.push(vowels[b]);

};

};

};

*let* resultString = resultArray.join('').toUpperCase();

console.log(resultString);