Find The Most Common Words Assignment

#### **Learning Outcomes Addressed**

 3. Use callback functions to filter, sort and map arrays and objects in JavaScript

 4. Use string manipulation functions

**Find the most common words**

**Counting word occurrence**

In this assignment, you'll need to start with a given string that contains a number of words. Then, define the number of times each word appears in the given text. After that point, you will see what the top three words used are.

The starter code already has some of this functionality implemented. Please go through the code in the *wordcount.js* file and read the comments to understand how this logic will work.

**Your task is to print to console the first three most common words that appear in a given text.**

*Notes*:

* *In the starter code, some comments start with the words "TO DO." This is where you could add your lines of codes to solve this assignment.*
* *The words will need to be scrubbed of any punctuation. To do so, you may choose to use regex and "replace", or you may choose to get rid of any punctuation marks another way. It is up to you!*
* *Watch out for casing. The JavaScript compiler does not think a lowercase and an uppercase letter are the same letter the way humans do. To avoid this, set the entire string to be in lowercase.*

Task

Print to console the first three most common words that appear in a given text

// This script will run when the page is loaded

window.onload = () => {

  let result = countWords();

  console.log(result);

};

function countWords() {

  // The text variable contains the long string of words

  let text =

    "Some of the biggest and most expensive transportation projects in the world have involved building bridges. Bridges are crucial links that carry cars, trucks and trains across bodies of water, mountain gorges or other roads. As a result, they are one of the most important aspects of civil engineering and are subject to intense scrutiny, especially when they collapse. Bridge collapses can be tragic events, leading to loss of life and serious property damage. That is why bridge engineers, designers and builders must always take their jobs very seriously. The best way for them to prevent these accidents is to understand why bridges collapse in the first place. Understanding bridge collapses can lead to major changes in the design, construction and safety of future building projects. The following are main reasons why bridges fall.";

  // TODO: add code here to remove the periods and commas and transform all words to lowercase letters

  // The wordArray array will contains a key value pair for words and their occurences in the text

  const wordArray = text.split(" ");

  // This loop goes through the wordArray and creates the key value pair objects

  const wordCount = {};

  wordArray.forEach((item) => {

    if (wordCount[item] == null) wordCount[item] = 1;

    else {

      wordCount[item] += 1;

    }

  });

  // Turn objects into an array of arrays

  let myArray = Object.entries(wordCount);

  // TODO: sort the arrays based on the count number and store the result in a variable called bArray

  // return the first three most common words.

  return bArray;

}

//don't change this line

if (typeof module !== "undefined") {

  module.exports = countWords;

}