/\*\***1.An Alternative way to find the shortest word is using a compare function similar to Java’s Comparator interface and passing that function to Arrays.sort();**

**I feel this solution as more elegant and shorter than the first one:**

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/\*

Write a method or function in the major programming language of your choice that returns the

longest word in a sentence and its length.For example, “The cow jumped over the moon.”

should return “jumped” and 6.

Write unit tests, reworking code as needed

Add a method that returns the shortest word and length with unit tests

Create a README documenting any assumptions you made and including instructions on how to build and execute your tests.

Share your code using GitHub or similar.\*/

/\*\* Assumptions:

\* Assumed that the return type can be an array with first element as the longest word

\* and second element as it's length, the result will be like [word, length].

\* Also assumed that there will be atleast one word which has shorter length in the sentence than others

\*Assumed there will not be any empty string of tabs and considered it a word like "" ' '" rest of the sentence"

If need be we can add an additional check not to return if its an empty string.

\*Assumed to return first shortest word that matches if there are more than one word of same short length

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Unit Tests:

1. Check the argument is a string if not return invalid input.

2.Checking for invalid length of sentence.

3. can also check if return result is not an empty string if needed

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/\*\* How to Run

\* Open codeinterview.io and clcik on TryDemo which opensup an editor

\* select Javascript(node) as programming language, copy paste the below code

\* Click Run should give you result array

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const \_ = require('lodash');

const shortestWord = ((sentence) => {

//UnitTest:Checking for invalid input

if (typeof sentence !== 'string') { return 'Invalid Input' }

//UnitTest:Checking for invalid length of sentence

if (sentence.length === 0) { return 'Invalid length' }

// Split string to create a word array

let arr = sentence.split(" ");

let res = [];

let temp = {};

// map to store words and their lengths as key value pairs

let map = new Map();

// iterate and store words and their lengths as (K,V)

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

res[i]={word:arr[i] , lt:arr[i].length};

//map.set(arr[i], arr[i].length);

}

//sort all objects based on their world lengths in ascending order

res.sort(compare);

return [res[0].word, res[0].lt];

})

// Function that is similiar to JAVA's comparator to return ascending order

function compare(a, b) {

return a.lt - b.lt;

}

//Final Result--->

console.log(shortestWord("The cow jumped over the moon."));