

149. Given an array of string words, return all strings in words that is a substring of another word. You can return the answer in any order. A substring is a contiguous sequence of characters within a string

Example 1:

Input: words = ["mass", "as", "hero", "superhero"]

Output: ["as", "hero"]

Explanation: "as" is substring of "mass" and "hero" is substring of "superhero".

["hero", "as"] is also a valid answer.

AIM: To find the substring is a contiguous sequence of characters wuthn a string

PROGRAM:

```
def substring_words(words):
    result = []
    words.sort(key=len) # Sort words by length to process shorter ones first

    for i in range(len(words)):
        for j in range(i + 1, len(words)):
            if words[i] in words[j]:
                result.append(words[i])
                break

    return result

words = ["mass", "as", "hero", "superhero"]
print(substring_words(words))
```

```
['as', 'hero']
```

OUTPUT:

TIME COMPLEXITY: $O(n \log n)$