180. Given an input string and a dictionary of words, find out if the input string can be segmented into a space-separated sequence of dictionary words.Consider the following dictionary { i, like, sam, sung, samsung, mobile, ice, cream, icecream, man, go, mango}

Input: ilike

Output: Yes

The string can be segmented as "i like".

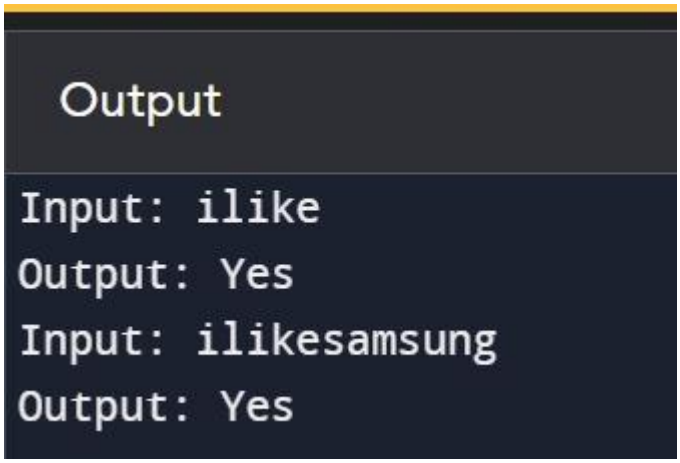
Input: ilikesamsung

Output: Yes The string can be segmented as "i like samsung" or "i like sam sung".

Program:

```
def word_break(input_str, word_dict):
    if not input_str:
        return True
    for i in range(1, len(input_str) + 1):
        if input_str[:i] in word_dict and word_break(input_str[i:], word_dict):
            return True
    return False


# Dictionary of words
word_dictionary = {"i", "like", "sam", "sung", "samsung", "mobile", "ice", "cream", "icecream", "man", "go", "mango"}


# Input strings to check
input_str1 = "ilike"
input_str2 = "ilikesamsung"


# Check if input strings can be segmented
output1 = "Yes" if word_break(input_str1, word_dictionary) else "No"
output2 = "Yes" if word_break(input_str2, word_dictionary) else "No"


print(f"Input: {input_str1}\nOutput: {output1}")
print(f"Input: {input_str2}\nOutput: {output2}")
```

Output:



Timecomplexity: O(n)