179.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}

PROGRAM:

```
def word_break(s, wordDict):
    n = len(s)
    dp = [False] * (n + 1)
    dp[0] = True

    for i in range(1, n + 1):
        for j in range(i):
            if dp[j] and s[j:i] in wordDict:
                dp[i] = True
                break

    return dp[n]

wordDict = {"i", "like", "sam", "sung", "samsung", "mobile", "ice", "cream", "icecream", "man", "go", "mango"}
input_str1 = "ilike"
input_str2 = "ilikesamsung"

output1 = "Yes" if word_break(input_str1, wordDict) else "No"
output2 = "Yes" if word_break(input_str2, wordDict) else "No"

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

OUTPUT:

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Input: ilike
Output: Yes
Input: ilikesamsung
Output: Yes

=== Code Execution Successful ===
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TIME COMPLEXITY:O(N^2)