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Python bfs solution

Luolingwei ★ 152 Last Edit: November 17, 2019 12:09 AM 630 VIEWS

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```
class Solution:
    def generateSentences(self, synonyms: List[List[str]], text: str) -> List[str]:
        graph=collections.defaultdict(dict)
        bfs=collections.deque()
        ans=set()
        bfs.append(text)
        for k,v in synonyms:
            graph[k][v]=1
            graph[v][k]=1
        while bfs:
            curT=bfs.popleft()
            ans.add(curT)
            words=curT.split()
            for i,w in enumerate(words):
                if w in graph.keys():
                    for newW in graph[w]:
                        newsent=' '.join(words[:i]+[newW]+words[i+1:])
                        if newsent not in ans:
                            bfs.append(newsent)
        return sorted(list(ans))
```

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hiepit ★ 2693 November 16, 2019 11:15 PM

Very nice solution, thank you for sharing with us. I wanna share the java version for someone doesn't familiar with Python.
Java version

```
class Solution {
    public List<String> generateSentences(List<List<String>> synonyms, String text) {
        Map<String, List<String>> graph = new HashMap<>();
        for (List<String> synonymPair : synonyms) {
            String w1 = synonymPair.get(0), w2 = synonymPair.get(1);
            connect(graph, w1, w2);
            connect(graph, w2, w1);
```

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hiepit ★ 2693 November 17, 2019 12:06 AM

You can use "```python" (without double quote) to highlight your python syntax like below:

```
def main():
    print("Hello world")
```

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