Problem Challenge 1

We'll cover the following

Reconstructing a Sequence (hard)

Given a sequence `originalSeq` and an array of sequences, write a method to find if `originalSeq` can be uniquely reconstructed from the array of sequences.

Unique reconstruction means that we need to find if `originalSeq` is the only sequence such that all sequences in the array are subsequences of it.

Example 1:

```
Input: originalSeq: [1, 2, 3, 4], seqs: [[1, 2], [2, 3], [3, 4]]
Output: true
Explanation: The sequences [1, 2], [2, 3], and [3, 4] can uniquely reconstruct
[1, 2, 3, 4], in other words, all the given sequences uniquely define the order of numbers
in the 'originalSeq'.
```

Example 2:

```
Input: originalSeq: [1, 2, 3, 4], seqs: [[1, 2], [2, 3], [2, 4]]
Output: false
Explanation: The sequences [1, 2], [2, 3], and [2, 4] cannot uniquely reconstruct
[1, 2, 3, 4]. There are two possible sequences we can construct from the given sequences:
1) [1, 2, 3, 4]
2) [1, 2, 4, 3]
```

Example 3:

```
Input: originalSeq: [3, 1, 4, 2, 5], seqs: [[3, 1, 5], [1, 4, 2, 5]]
Output: true
Explanation: The sequences [3, 1, 5] and [1, 4, 2, 5] can uniquely reconstruct
[3, 1, 4, 2, 5].
```

Try it yourself

Try solving this question here:

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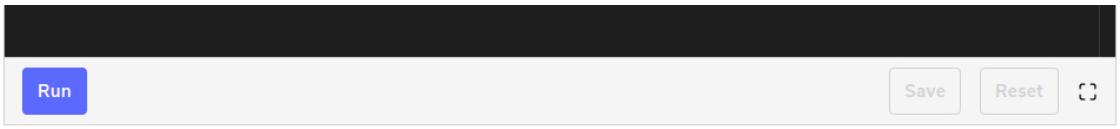
```python
def can_construct(originalSeq, sequences):
  # TODO: Write your code here
  return False


def main():
  print("Can construct: " +
        str(can_construct([1, 2, 3, 4], [[1, 2], [2, 3], [3, 4]])))
  print("Can construct: " +
        str(can_construct([1, 2, 3, 4], [[1, 2], [2, 3], [2, 4]])))
  print("Can construct: " +
        str(can_construct([3, 1, 4, 2, 5], [[3, 1, 5], [1, 4, 2, 5]])))


main()

```



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