

Week-10

Start with empty mappings for both s and t:

s: {} t:

{}

Now, let's iterate through the characters in both strings:

For the first character, 'e' in s and 'a' in t:

s: {'e' -> 'a'} t:

{'a' -> 'e'}

For the second character, 'g' in s and 'd' in t:

s: {'e' -> 'a', 'g' -> 'd'} t:

{'a' -> 'e', 'd' -> 'g'}

Now, we check if the mappings are consistent and one-to-one:

For each character in s, check if its mapping in t is correct.

For each character in t, check if its mapping in s is correct.

Therefore, the output for the given test data 'Input: s = "egg", t = "add"; Output: true' is True.

week10-q2

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1def isIsomorphic(s, t):

2 if len(s) != len(t):

3 return False

4

5 # Initialize hash tables to store character mappings

6 s_to_t = {}

7 t_to_s = {}

8 (parameter) t: Any

9 for char_s, char_t in zip(s, t):

10 # Check if character exists in the hash tables

11 if char_s in s_to_t:

12 # Ensure consistent mapping

13 if s_to_t[char_s] != char_t:

14 return False

15 else:

16 # Add character mappings to the hash tables

17 s_to_t[char_s] = char_t

18

19 if char_t in t_to_s:

20 # Ensure consistent mapping

21 if t_to_s[char_t] != char_s:

22 return False

23 else:

24 # Add character mappings to the hash tables

25 t_to_s[char_t] = char_s

26

27 # If no inconsistent mappings found, return True

28 return True

29

30

31 # Test data

32 s = "egg"

33 t = "add"

34 output = isIsomorphic(s, t)

35 print(output)

36

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14 return False
15 else:
16 # Add character mappings to the hash tables

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/usr/local/bin/python3 /Users/rakesh_kasha/Desktop/week10-q2
● (base) rakesh_kasha@Rakesh-kashas-MacBook-Pro ~ % /usr/local/bin/python3 /Users/rakesh_kasha/Desktop/week10-q2
True
○ (base) rakesh_kasha@Rakesh-kashas-MacBook-Pro ~ %

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