Problem # 299 : Bulls and Cows

<https://leetcode.com/problems/bulls-and-cows/>

Solution:

<https://leetcode.com/problems/bulls-and-cows/discuss/840661/Simple-Python-3-Solution-Runtime-beats-99.16>

1. Create a default dictionary for secret and for guess.
2. Initialize bulls to 0.
3. Iterate through the guess string and see if the corresponding index in the secret string has the same value. If so, increment bulls. If not, put the secret value in the secret dictionary and the guess value in the guess dictionary and increment the count in the dictionaries by 1.
4. Now we have to calculate the cows. Initialize cows to 0.
5. Iterate through the keys of the guess dictionary. For each key, find the minimum of the value from secret dictionary and the value from guest dictionary. Increment cows by the minimum value for each key.

from collections import defaultdict

class Solution:

def getHint(self, secret: str, guess: str) -> str:

secret\_dict = defaultdict(int)

guess\_dict = defaultdict(int)

# Calculate bulls

n = len(guess)

bulls = 0

for i in range(n):

if guess[i] == secret[i]:

bulls += 1

else:

secret\_dict[secret[i]] += 1

guess\_dict[guess[i]] += 1

# Now calculate cows

cows = 0

for key in guess\_dict.keys():

cows += min(secret\_dict[key], guess\_dict[key])

return(f'{bulls}A{cows}B')