

APP WEEK-6 HackerRank

Q. Bear and Steady Gene

Code:

```
def steadyGene(gene):
    min_length_string = len(gene)
    occurrences = dict()
    occurrences['A'] = 0
    occurrences['G'] = 0
    occurrences['C'] = 0
    occurrences['T'] = 0
    expected = len(gene) // 4
    for g in gene:
        occurrences[g] += 1
    for x in occurrences:
        occurrences[x] = max(0, occurrences[x] - expected)
    if occurrences['A'] == 0 and occurrences['G'] == 0 and occurrences['C'] == 0 and
occurrences['T'] == 0:
        return 0
    found = dict()
    found['A'] = 0
    found['G'] = 0
    found['C'] = 0
    found['T'] = 0
    tail = 0
    head = 0
    while head != len(gene):
        found[gene[head]] += 1
        if found['A'] >= occurrences['A'] and \
found['C'] >= occurrences['C'] and \
found['G'] >= occurrences['G'] and \
found['T'] >= occurrences['T']:
            # this is a valid candidate
            min_length_string = min(min_length_string, head-tail+1)

            # try to shorten it
            while found[gene[tail]] > occurrences[gene[tail]]:
                found[gene[tail]] -= 1
                tail += 1
            min_length_string = min(min_length_string, head-tail+1)
            head += 1
    return min_length_string
```

Hackerrank Week 6

Solve Algorithms | HackerRank

hackerrank.com/domains/algorithms?filters%5Bsubdomains%5D%5B%5D=strings&filters%5Bstatus%5D%5B%5D=solved

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HackerRank

PREPARE

CERTIFY

COMPETE

Search

sn0273

Prepare > Problem Solving

Problem Solving

15 more points to get your next star!

Rank: 1638823 | Points: 85/100

Algorithms | Data Structures

Bear and Steady Gene

★

Solved

Medium, Problem Solving (Advanced), Max Score: 50, Success Rate: 66.82%

STATUS

☒ Solved

☐ Unsolved

SKILLS

☐ Problem Solving (Intermediate)

☐ Problem Solving (Advanced)

☐ Problem Solving (Basic)

DIFFICULTY

☐ Easy

☐ Medium

☐ Hard

English (India)
English (India)

To switch input methods, press Windows key + space.

SUBDOMAINS