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1  #include <iostream>
2  #include <cstring>
3  using namespace std;
4
5  float countering_sentence(const char *);
6  float countering_word(const char *);
7  void countering_vowel(const char *, int *);
8  void analyzeText(const char *);
9
10 int main()
11 {
12     // paragraph1 is an array
13     const char paragraph1[] = "Hello, world! I am learning C++. Isn't it exciting?";
14     const char paragraph2[] = "This is another paragraph. It contains more sentences! Oh, how fascinating.";
15
16     analyzeText(paragraph1);    // pass address
17     cout << "-----\n";
18     analyzeText(paragraph2);
19
20     return 0;
21 }
22
23 float countering_sentence(const char *paragraph){
24
25     float sentence_counter = 0;
26
27     for (const char *sptr=paragraph; *sptr; sptr++){
28         if (*sptr == '.' or *sptr == '!' or *sptr == '?'){
29             sentence_counter += 1;
30         }
31     }
32
33     return sentence_counter;
34 }
35

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float countering_word(const char *paragraph){

    float word_counter = 0;

    for (const char *wptr=paragraph; *wptr; wptr++){
        if (*wptr == ' '){
            word_counter += 1;
        }
    }
    word_counter += 1;

    return word_counter;
}

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void countering_vowel(const char *paragraph, int *vowel){

    for (const char *vptr=paragraph; *vptr; vptr++){
        switch(*vptr){
            case 'a': case 'A':
                vowel[0] += 1;
                break;
            case 'e': case 'E':
                vowel[1] += 1;
                break;
            case 'i': case 'I':
                vowel[2] += 1;
                break;
            case 'o': case 'O':
                vowel[3] += 1;
                break;
            case 'u': case 'U':
                vowel[4] += 1;
                break;
            default:
                break;
        }
    }
}

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void analyzeText(const char *paragraph){

    const int sentenceCount = countering_sentence(paragraph);
    cout << sentenceCount << " sentences" << endl;

    const float average = countering_word(paragraph) / sentenceCount;
    if ( (average - int(average)) >= 0.5 ){
        cout << "Average " << int(average)+1 << " words per sentence" << endl;
    }
    else if ( (average - int(average)) < 0.5 ){
        cout << "Average " << int(average) << " words per sentence" << endl;
    }

    int vowel[5] = {};
    countering_vowel(paragraph, vowel);
    for (int i=0; i < sizeof(vowel)/sizeof(vowel[0]); i++){
        switch(i){
            case 0:
                cout << vowel[i] << " a" << endl;
                break;
            case 1:
                cout << vowel[i] << " e" << endl;
                break;
            case 2:
                cout << vowel[i] << " i" << endl;
                break;
            case 3:
                cout << vowel[i] << " o" << endl;
                break;
            case 4:
                cout << vowel[i] << " u" << endl;
                break;
            default:
                break;
        }
    }
}

```

```

3 sentences
Average 3 words per sentence
2 a
3 e
6 i
2 o
0 u
-----
3 sentences
Average 4 words per sentence
7 a
5 e
6 i
5 o
0 u

```