

3 Exercises

1. Write a program that asks the user to type in numbers. After each entry, the program should report the cumulative sum of the entries to date. The program should terminate when the user enters 0.

Sample output:

```
Enter an integer number:3
The cumulative sum of the entries to date is :3
Enter an integer number:8
The cumulative sum of the entries to date is :11
Enter an integer number:21
The cumulative sum of the entries to date is :32
Enter an integer number:46
The cumulative sum of the entries to date is :78
Enter an integer number:0
The cumulative sum of the entries to date is :78
```

2. Write a program that uses a loop to read one word at a time until the word **done** is entered. The program should then report the number of words entered(not counting done). A sample run could look like this:

```
Enter words(to stop, type the word done):  
one two three four fine  
always happy with done for sure  
You entered a total of 8 words.
```

You should include the **cstring** header file.

3. Write a program that reads input a word at a time until a lone **q** is entered. The program should then report the number of words that began with vowels, the number that began with consonants, and the number that fit neither of those categories. One approach is to use **isalpha()** to discriminate between words beginning with letters and those that don't and then use an **if** or **switch** statement to further identify those passing the **isalpha()** test that begin with vowels. A sample run might look like this:

```
Enter word (q to quit):  
The 12 unversities ocean ambled  
quietly Example 15 meters of lawn. q  
5 words beginning with vowels  
4 words beginning with consonants  
2 others
```

```

#include <iostream>
#include <cctype>
#include <cstring>
using namespace std;

const int vn = 5;
const char vowel[vn] = {'a','e','i','o','u'};

int main() {
    cout << "Enter word (q to quit):" << endl;
    int nVowel = 0;
    int nConsonant = 0;
    int nOther = 0;
    char word[30];

    while(cin >> word)
    {
        if(isalpha(word[0]))
        {
            if(strlen(word) == 1 && word[0] == 'q')
                break;

            char x = tolower(word[0]);

            // complete code here

        }

        // complete code herer

    }

    cout << nVowel << " words beginning with vowels" << endl
    << nConsonant << " words beginning with consonats" << endl
    << nOther << " others" << endl;

    return 0;
}

```

4. Write a program that asks user to input a string by keyboard, save the letters and blanks of the string to a file named f1.txt. Convert the lower case letters into the upper case letters and save to another file named f2.txt. Show the contents of f1.txt and f2.txt on the screen respectively.

Sample output:

```
Please input a string:Hi! I am Candy, 18 years old.  
  
The contents of f1.txt : Hi I am Candy  years old  
The contents of f2.txt : HI I AM CANDY  YEARS OLD
```