Problem Solving using c and c++

Lab Assignment 7

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1. Create user defined manipulator to provide a following output specification for printing float value.
i. 12 column width
ii. left justified
iii. Two precision
iv. Filling unused place with sign '*'
v. Trailing zeros shown are display + sign as first position.

```cpp
#include <iostream>
#include <iomanip>
#include <conio.h>
using namespace std;

ostream &form(ostream &output)
{
    output.setf(ios::showpos);
    output.setf(ios::showpoint);
    output.fill('*');
    output.precision(2);
    output << setiosflags(ios::fixed) << setw(10);

    return output;
}

int main()
{
    cout << form << 7864.5;

    getch();
    return 0;
}
```

```
                                > cd "e:\
Work\JIIT\sem_6\JIIT-SEM-6\Proble
m_solving_lab\Lab7\" ; if ($?) {
g++ q1.cpp -o q1 } ; if ($?) { .\
q1 }
**+7864.50
```

2. Write a program in C++ that opens two files as FILE1.txt and FILE2.txt. It is assumed both files are having some lines of text. WAP to read line1 from FILE1, sort the words of the line1 and write it into FILE3 then read line 1 from FILE2 , sort the words of the line1 and write it into FILE3. This process will continue till end of either of the file. On reaching EOF in any of the two files, perform the above mentioned process with the lines of the remaining file.

```c
#include <stdio.h>
#include <stdlib.h>

int main()
{

    FILE *fp1 = fopen("file1.txt", "r");
    FILE *fp2 = fopen("file2.txt", "r");

    FILE *fp3 = fopen("file3.txt", "w");
    char c;

    if (fp1 == NULL || fp2 == NULL || fp3 == NULL)
    {
        puts("Could not open files");
        exit(0);
    }

    while ((c = fgetc(fp1)) != EOF)
        fputc(c, fp3);

    while ((c = fgetc(fp2)) != EOF)
        fputc(c, fp3);

    printf("Merged file1.txt and file2.txt into file3.txt");
```

```
    fclose(fp1);
    fclose(fp2);
    fclose(fp3);
    return 0;
}
```

3. Write a program to demonstrate tokenizing a string using stringstream class and print the
frequencies of individual words in a string.
Input:
string s = "work while you work play while you play";
Output:

```
#include <iostream>
#include <sstream>
#include <string>
using namespace std;

int countWords(string str)
{

    stringstream s(str);

    string word;

    int count = 0;
    while (s >> word)
        count++;
    return count;
}

int main()
{
    string s = "work while you work play while you";
    cout << " Number of words are: " << countWords(s);
    return 0;
}
```