Chapter 6- lab assignment

(15 points)

Due date: End of this class

Note: Submit your assignment in the inbox

Part 3

1. What is the difference between cin and get functions? Complete the functions in the main program. The first one is to count the number of words in Text1.txt. The second one is to count the number of characters in Text1.txt

```
int main()
{
   int length(0), length1(0);

   ifstream in;
   in.open("Text1.txt");

   words_count(length, in);//count the number of words
   cout << "number of words = " << length << endl;

   in.clear();  // to clear the data of the object in and
   in.seekg(0, ios::beg);// seek to the beginning

   character_count(length1, in);// how many characters
   cout << "number of characters = " << length1 << endl;

   in.close();
   system("pause");
   return 0;
}
```

cin will take input from keyboard and stop when it encounters a space, leaving other text in the "input buffer", get is

similar but instead it will output the spaces included in the
    text

```cpp
#include <iostream>
#include <string>
#include <fstream>
#include <cctype>
//CPSC 230 RAVI PATEL ASSIGNMENT 6 PART 3 Q1 (not finished - unsolved)

using namespace std;
int words_count(int& length, ifstream& in);
int main()
{
    int length(0), length1(0);

    ifstream in;
    in.open("text1.txt");

    words_count(length, in);//count the number of words
    cout << "number of words = " << length << endl;

    in.clear();  // to clear the data of the object in and
    in.seekg(0, ios::beg);// seek to the beginning

    //character_count(length1, in);// how many characters
    cout << "number of characters = " << length1 << endl;

    in.close();
    return 0;
}

int words_count(int& length, ifstream& in){
int ch = length, wcount;
while (!in.eof()) {


if (ch == ' ' || ch == '\n') { ++wcount; }

return wcount;

}
}
```

//SAMPLE OUTPUT:
//number of words = 0 //should be 24
//number of characters = 0 //should be 96

   2-
  Reads every character of file text1.txt and copies it to
file text2.txt except that every 'c' is changed to uppercase
"C++" in text2.txt

Text1.txt

c is one of the world's most modern programming languages. There is no language as versatile as c, and c is fun to use.

```cpp
#include <iostream>
#include <fstream>
#include <algorithm>
#include <string>
//CSPC 230 RAVI PATEL ASSIGNMENT 6 PART 3 Q2
//Reads every character of file text1.txt and copies it to
//file text2.txt except that every 'c' is changed to uppercase
//"C++" in text2.txt
using namespace std;

int main(int argc, char *argv[]) {

ifstream inputFile; //input file
inputFile.open("text1.txt");
ofstream outputfile; //output file
outputfile.open("text2.txt");

char next; //to store char

while(inputFile.get(next)) //read until end of file

    {

        if (next == 'c')
            next = toupper(next); //change letter 'c' to 'C'
            outputfile<<next; //write to output file

        if(next == 'C') //if char is 'C'
            outputfile<<"++"; //append ++ to it

    }

inputFile.close(); //CLOSE INPUT FILE
outputfile.close(); //CLOSE OUTPUT FILE

    return 0;
}
```

in text1.txt:
c is one of the world's most modern programming languages. There is no language as versatile as c, and c is fun to use.

in text2.txt:
C++ is one of the world's most modern programming languages. There is no language as versatile as C++, and C++ is fun to use.