# Lab 1a

Problem: Open an existing text file and do 3 counts:

1. Capital letters (Red)
2. Lowercase letters (Green)
3. Non-letter characters (Yellow)



# Source File:

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2. Lowercase letters (Green)

3. Non-letter characters (Yellow)

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Inputs: Pre-existing text file

File name from the drive letter

Outputs: Three counts\*/

#include <iostream>

#include <fstream>

using namespace std;

void process(ifstream & input, int & rcount, int & gcount, int & ycount);

int color(char c);

int main()

{

/\*Gets file name from user

Opens stream from the file

Calls process()

Gets back and prints answers\*/

cout<<"Please enter the address of the file to be processd:\n";

char file[256];

cin.getline(file,256);

ifstream input(file); //declares the input stream and opens it to the file

if(!input.is\_open())

{

cout<<"Error: The file "<<file<<" failed to open correctly. Quitting program.";

exit(-1);

}

int rcount;

int gcount;

int ycount;

process(input,rcount,gcount,ycount);

cout<<"\n\nHere is the quantity of red(capital) characters: "<<rcount<<endl;

cout<<"Here is the quantity of green(lowercase) characters: "<<gcount<<endl;

cout<<"Here is the quantity of yellow(non-letter) characters: "<<ycount<<endl<<endl;

return 0;

}

void process(ifstream & input,int & rcount, int & gcount, int & ycount)

{

/\*Zeroes the counts

Loop:

get char

if red capital++

if green lower++

if yellow nonletter++\*/

rcount=gcount=ycount=0;

char c;

int result;

while(input>>c) //this loop takes in each character(no spaces) from the file one by one and sends them to the color function to be identified

{

result=color(c);

if(result==0)

rcount++;

else if(result==1)

gcount++;

else if(result==2)

ycount++;

}

}

int color(char c)

{

/\*Returns 0 if red, returns 1 if green, returns 2 if yellow\*/

if(c>='A'&&c<='Z')

return 0;

else if(c>='a'&&c<='z')

return 1;

else

return 2;

}

# Input File:

Yesterday's failures

Must be forgotten.

Tomorrow's new hope

And new fulfilment

Must be cherished.

# Sample Run:

Please enter the address of the file to be processed:

C:\Users\naroa\Documents\Visual Studio 2012\Projects\CompSci 201\Lab1\hope.txt

Here is the quantity of red(capital) characters: 5

Here is the quantity of green(lowercase) characters: 75

Here is the quantity of yellow(non-letter) characters: 4

Press any key to continue . . .