Practical - 1

AIM: WRITE A PROGRAM TO COUNT LINES OF CODE WATCHING BLANK LINES AND COMMENTS.

Introduction

We are writing code to count lines of code for which input is a C++ program in a text file. We are estimating the size of the program which will be useful in project planning.

Code

```
#include<iostream>
#include<stdio.h>
#include<fstream>
#include<string>


using namespace std;


int main()
{
    string line;
    int count = 0;
    ifstream myfile("code.txt");
    if(myfile.is_open())
    {
        while(getline(myfile,line))
        {
            if(line.empty())
                continue;
            if(line[0] == '/')
            {
                if(line[1] == '/')
                    continue;
                else if(line [1] == '*')
                {
                    int flag =0;
                    while(getline(myfile,line))
                    {
                        for(int i=0; i<line.size()-1; i++)
                        {
                            if(line[i] == '*' && line[i+1] == '/')
                            {
                                if(line[i+2])
                                    count++;


                                flag = 1;
                            }
                        }
                        if(flag == 1)
                            break;
                    }
```

```
                    continue;
                }
                else
                count++;
            }
            count++;
        }
    }
    cout<<count;
    return 0;
}
```

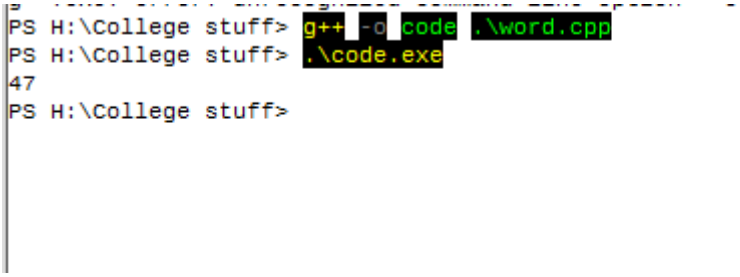
Input File

```
#include<iostream>
#include<stdio.h>
#include<fstream>
#include<string>
using namespace std;
int main()
{
string line;
int count = 0;
ifstream myfile("code.txt");
if(myfile.is_open())
{
//
while(getline(myfile,line))
{
if(line.empty())
continue;
/*.........................................
.................................................
.................................................
.................................................
.....................................*/.............
/*.......
......
.....*/
if(line[0] == '/')
{
if(line[1] == '/')
continue;

else if(line [1] == '*')
{
do(getline(myfile,line))
{
for(int i=0; i<line.size()-1; i++)
{
if(line[i] == '*' && line[i+1] == '/')
{
if(line[i+2])
```

```
count++;
else
break;
}
}
}
continue;
}
else
count++;
}
count++
}
}
cout<<count;
return 0;
}
```

Output



Learning

We are estimating project size by counting lines of count. The size estimation is helpful in project planning. We can determine cost and time required for developing the software by estimating cost. However, including comments and blank lines in counting can give a wrong judgement about software size