

Assignment 9

Problem Statement

Write a function in C++ to count and display the number of lines not starting with alphabet 'A' present in a text file "STORY.TXT".

Example:

If the file "STORY.TXT" contains the following lines,

The roses are red.

A girl is playing there.

There is a playground.

An aeroplane is in the sky.

Numbers are not allowed in the password.

The function should display the output as 3.

Objectives:

To learn the concept of Files Handling & Strings in c++ programming

Outcomes:

The performer will be able to design a program in c++ using concept concept of Files Handling & Strings .

Software Requirements:

1. 64-bit Open source Linux or its derivative
2. Open Source C++ Programming tool like G++/GCC.

Theory:

File Handling:

A file must be opened before you can read from it or write to it. Either the **ofstream** or **fstream** object may be used to open a file for writing and **ifstream** object is used to open a file for reading purpose only.

```
void open(const char *filename, ios::openmode mode);
```

Here, the first argument specifies the name and location of the file to be opened and the second argument of the **open()** member function defines the mode in which the file should be opened.

When a C++ program terminates it automatically closes flushes all the streams, release all the allocated memory and close all the opened files. But it is always a good practice that a programmer should close all the opened files before program termination.

```
void close();
```

While doing C++ programming, you write information to a file from your program using the stream insertion operator (<<) just as you use that operator to output information to the screen. The only difference is that you use an **ofstream** or **fstream** object instead of the **cout** object.

You read information from a file into your program using the stream extraction

operator (>>) just as you use that operator to input information from the keyboard. The only difference is that you use an **ifstream** or **fstream** object instead of the **cin** object.

Algorithm:

1. Create a file "Story.txt"
2. Read the file using ifstream
3. While not end of file , check whether the first character of each line is "A"
4. if false increment the count;
5. Display the count to show the number of lines which donot start with the character "A".

Sample Code:

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

```
int nooflines()
{
    ifstream fin; // File Handling
    fin.open("STORY.txt");
    char str[80];
    int count=0;
    while(!fin.eof())
```

```

        {
            fin.getline(str,80);
            if(str[0]!='A')
                count++;
        }
        cout<<"Number of lines not starting with A are :"<<count-1;
        fin.close();
    }
    int main()
    {
        nooflines();
        cout<<"\n";
        return 0;
    }

```

Sample Output

dypiemr-@dypiemr:~\$ g++ LinesChar.cpp

dypiemr-@dypiemr:~\$./a.out

Number of lines not starting with A are :3