SESSIONAL TEST – 2

MCA
(Semester - II)

Name: _Arzoo Khan_

—

Roll No: _20MCA011_

—

Paper Code: _CSC26_

—

Paper Title: _Lab-III (OOP)_

—

Date: _10-07-2021_

—

Time: _12:00 PM – 1:00 PM_

1. 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 rose is red.
   A girl is playing there.
   Numbers are not allowed in the password.
   There is a playground.
   An aeroplane is in the sky.

SOURCE CODE:

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

template <class X>
void show_file_content(X&, string);
template <class X>
int no_of_lines_not_starting_with(char, X&);

// Driver Code
int main(void)
{
  system("cls");

  string file = "story.txt"; // Source File Name
  ifstream fin(file);

  if (!fin)
  {
    cout << " An Error has occurred while opening file!";
  }
  else
  {
    cout << "This program is to count the number of line in the file \'"
         << file << "\' which does not start with any character specified."
         << "\n\nEnter the character: ";

    char ch; cin >> ch;

    show_file_content(fin, file);
    cout << "\nNumber of lines which does not start with character \'"
         << ch << "\':: " << no_of_lines_not_starting_with(ch, fin);
    fin.close();
  }
```

```cpp
        cout << "\n\nPress any key to exit..."; getch();
        system("cls");
        return 0;
}


//Function to count no. of lines in a file not starting with an alphabet specified
template <class X>
int no_of_lines_not_starting_with(char ch, X& fin)
{
        int count = 0;
        char chFile;
        string line;
        fin.seekg(0, ios::beg);
        while (!fin.eof())
        {
                getline(fin, line);
                chFile = line[0];
                if (int(ch)==(int)line[0] || int(ch)+32==(int)line[0] || int(ch)-32 == (int)line[0])
                {}
                else ++count;
        }
        return count;
}


// Function to display the content of a file
template <class X>
void show_file_content(X& fin, string fName)
{
        int i = 1;
        string line;

        cout << "\n---------------------------------------- " << fName
             << " ----------------------------------------\n\n";

        fin.seekg(0, ios::beg);

        while (!fin.eof())
        {
                getline(fin, line);
                cout << i++ << "\t" << line << endl;
        }

        fin.seekg(0, ios::beg);

        cout << "\n----------------------------------------"
             << "----------------------------------------\n";
}
```
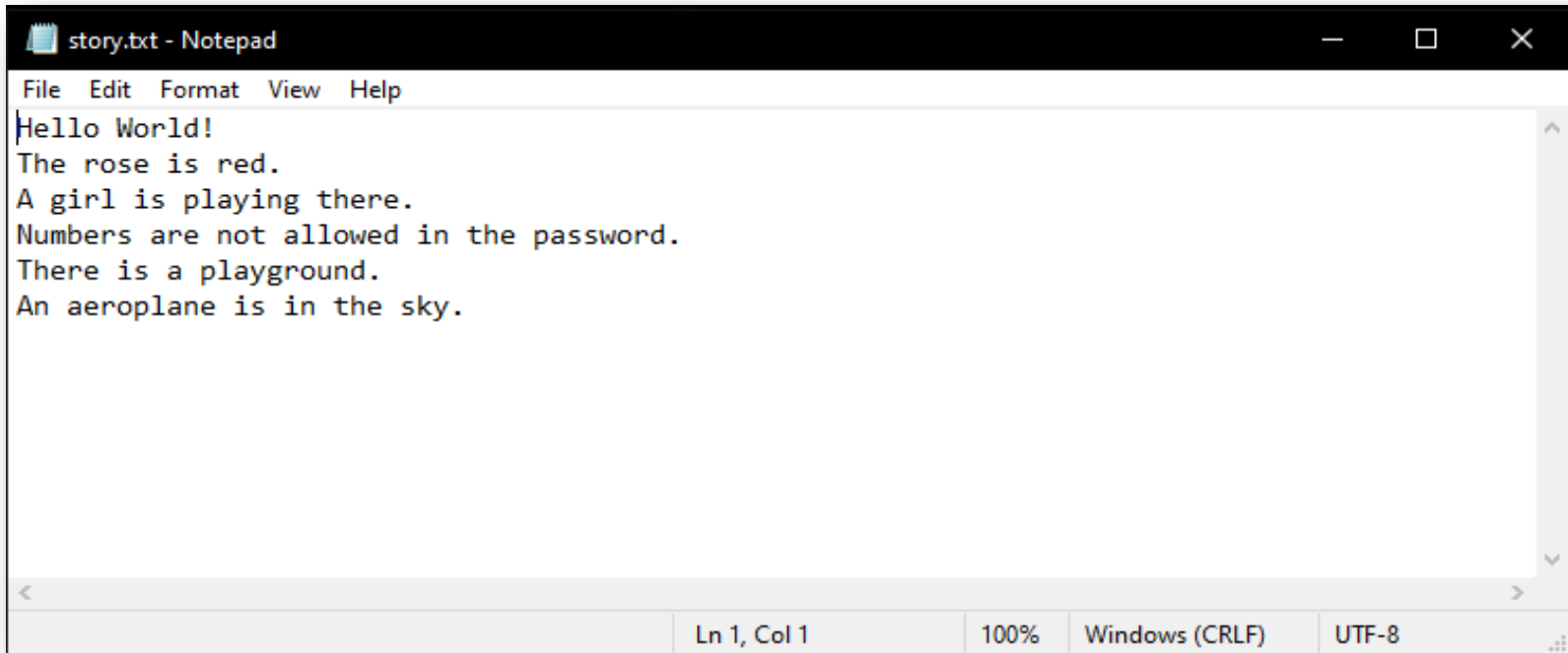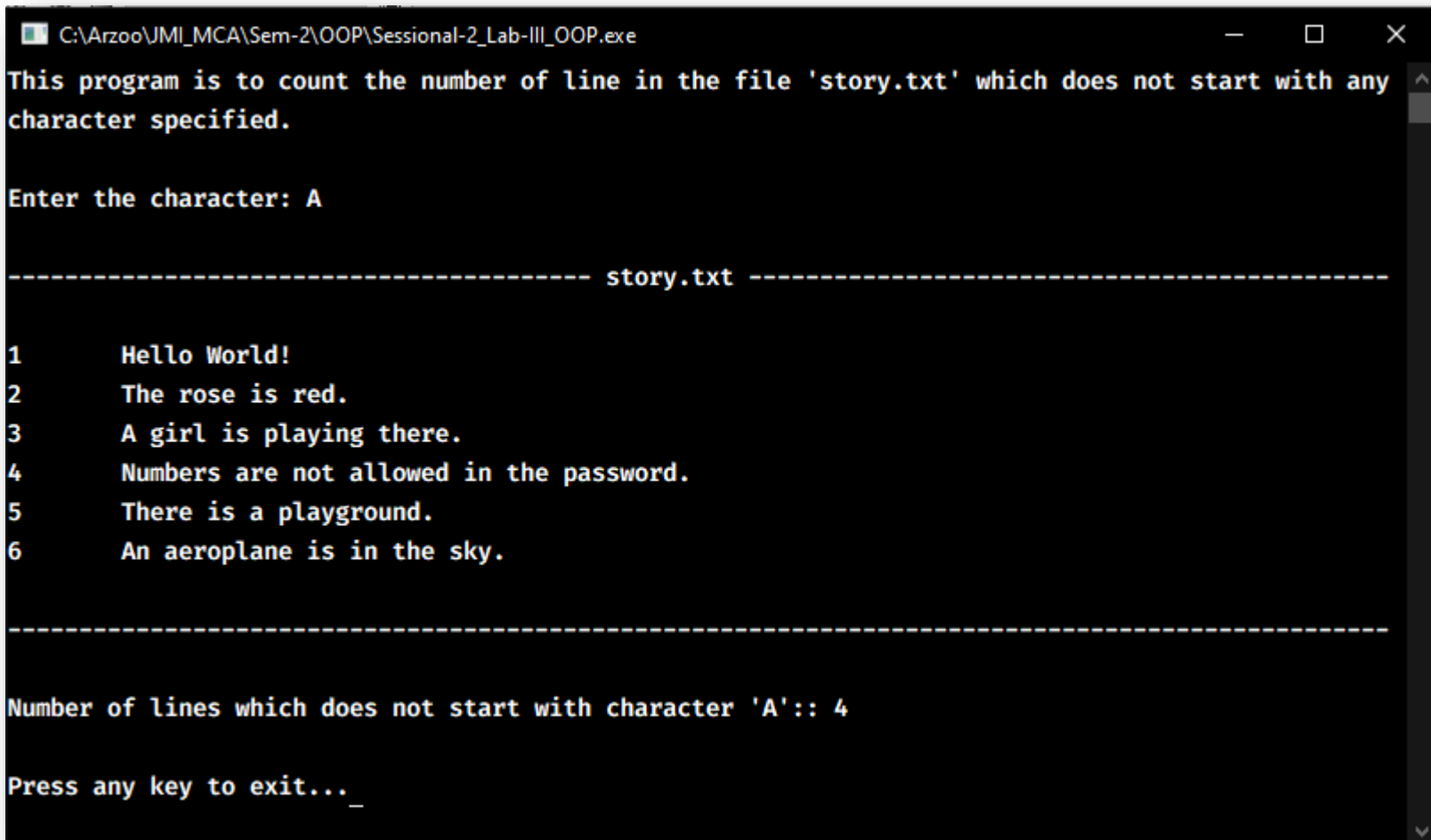
Story.txt file content:

```
story.txt - Notepad
File  Edit  Format  View  Help
Hello World!
The rose is red.
A girl is playing there.
Numbers are not allowed in the password.
There is a playground.
An aeroplane is in the sky.

                                    Ln 1, Col 1        100%    Windows (CRLF)    UTF-8
```

OUTPUT of the program:

```
C:\Arzoo\JMI_MCA\Sem-2\OOP\Sessional-2_Lab-III_OOP.exe
This program is to count the number of line in the file 'story.txt' which does not start with any
character specified.

Enter the character: A


------------------------------------ story.txt ---------------------------------------------

1       Hello World!
2       The rose is red.
3       A girl is playing there.
4       Numbers are not allowed in the password.
5       There is a playground.
6       An aeroplane is in the sky.


-------------------------------------------------------------------------------------------


Number of lines which does not start with character 'A':: 4


Press any key to exit..._
```

*****