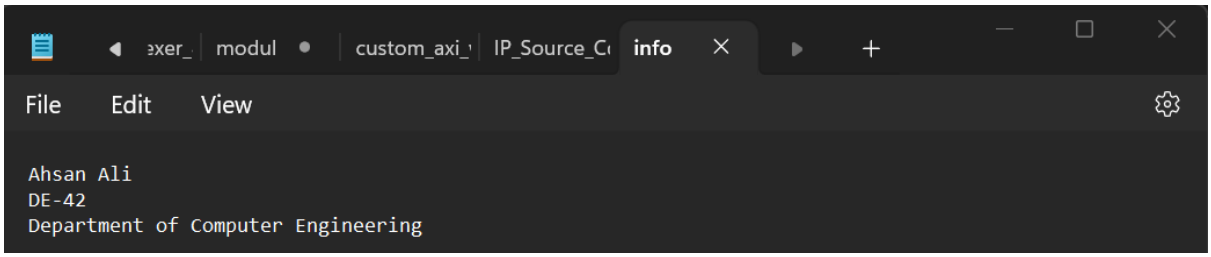
LAB TASK:

1. Write a program that generates a text file and writes your name, degree and department on three separate lines in that file. Don't forget to attach the screenshot of your generated file with code.

Code:

```
#include<iostream>
#include <fstream>
using namespace std;
int main()
{
    fstream info;
    info.open("info.txt", ios::out);
    if (!info)
    {
        cout << "File doesn't created.";
    }
    else
    {
        cout << "File created successfully";
        info << "Ahsan Ali";
        info << "\nDE-42";
        info << "\nDepartment of Computer Engineering";
    }
    info.close();
    return 0;
}
```

Output:



2. Write a program that reads everything written in the above generated file and displays it on the console in exact same pattern. Attach the screenshot of console with code.

Code:

```
#include<iostream>
#include <fstream>
#include<string>
using namespace std;
int main()
{
    fstream obj;
    string str;
    obj.open("info.txt", ios::in);
    if (!obj)
    {
        cout << "File doesn't exist.";
    }
    else
```

```
    {
      while(getline(obj,str))
      {
          cout << str << endl;
      }
    }
    obj.close();
    return 0;
}
```

Output:

```
Ahsan Ali
DE-42
Department of Computer Engineering
```

3. Write a program that generates a report card (file) containing marks obtained by a student in all seven subjects on the same line. The name of subject should be separated from marks by a space and the name and marks of other subject should be separated from previous one by a comma.

Example:

Mathematics 94, Calculus 42, English 70 and so on.

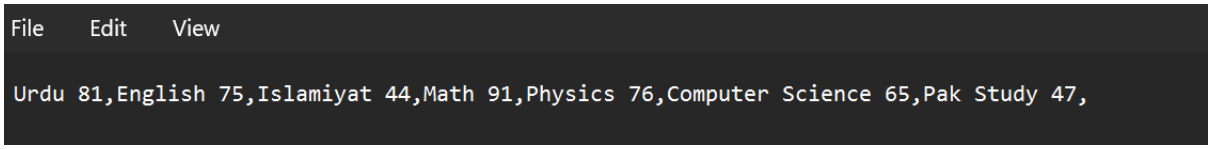
The marks should be taken from user as input in your program before transferring them to file. Don't forget to attach the screenshot of your generated file with code and console.

Code:

```
#include<iostream>
#include <fstream>
#include<string>
using namespace std;
int main()
{
    fstream obj;
    int marks;
    string str;
    string subject[] = {"Urdu", "English", "Islamiyat","Math","Physics","Computer
Science","Pak Study", };
    obj.open("record", ios::out);
    if (!obj)
    {
        cout << "File doesn't exist.";
    }
    else
    {
        for (int i = 0; i < 7; i++)
        {
            cout << "Enter the marks of the student in " << subject[i] << ": ";
            obj << subject[i] << " ";
            cin >> marks;
            obj << marks;
            obj << ",";
            cout << endl;
        }
```

```
    }
    obj.close();
    return 0;
}
```

Output:



4. Write a program that reads the contents of above generated file and displays them on console window in such a way that every line contains marks of just one subject along with its name.

Attach the screenshot of console with code.

Code:

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

int main()
{
    fstream obj;
    string subject;
    int grade;

    obj.open("record", ios::in);

    if (!obj)
    {
        cout << "File doesn't exist.";
    }
    else
    {
        while (obj >> subject >> grade)
        {
            cout << subject << " " << grade << endl;
        }
    }
    obj.close();
    return 0;
}
```

Output: