

Title: Program to implement various access specifiers

Aim: To write a program to implement various access specifiers in C++.

Theory:

Access Specifier:

These are used to implement an important aspect of object-oriented programming known as Data-Hiding.

Access Modifier or Access specifiers in a class are used to assign the accessibility to the class member. Different types of access modifiers available in C++ :-

- 1) public
- 2) private
- 3) protected

Note: If we do not specify any access modifiers for the members inside the class then by default the access modifier for the member will be private.

1) Public :-

All the class members declared under the public specifier will be available to . The data members and member functions declared as public can be accessed by other classes and functions too. The public members of a class can be accessed from anywhere in the program using the direct access operator (.) with the object of that class.

Syntax :-

object . member functions ;

Example :-

s1 . setdata ();

2) Private :-

The class members declared as 'private' can be accessed only by the member function inside the class.

They are not allowed to be accessed directly by any object or function outside the class. Only the member functions as the friend functions are allowed to access the private data members of a class.

PROGRAM :-

```
#include <iostream> //header file
#include <string> //header file
using namespace std;

class student { //declaring class
private: //access specifier
    int rollno; //ac
    string Name;

public: //access specifier
    void setdata ()
    {
        cout << "Enter your Roll No :- ";
        cin >> rollno;
        cout << "Enter your Name :- ";
        cin >> name;
    }

    void displaydata ()
    {
        cout << endl << "your Name : " << name
        << endl << "your Roll No : " << rollno
        << endl;
    }
};
```

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```
int main ()           //main function
{
    student s1;       //declaring object
    s1.setdata ();    // accessing
    s1.displaydata (); // accessing member
                      // functions
    return 0;
}
```

Output :-

Enter your Roll NO :- 1906035

Enter your Name :- Akshay

your name : Akshay

your Roll No : 1906025

Conclusion :-

By doing this practical, I understood about access specifier and understood to code it in C++.