Access Specifiers of the Class

Access specifiers define how a member's variables and member's functions of a class can be accessed from outside the class. However, all members of a class can be accessed from within the class without any restriction. There are three access specifiers. They are

1. Private
2. Public
3. Protected

Syntax of Declaring Access Specifiers in C++

```
class
{
 private:
   // private members and function
 public:
    // public members and function
 protected:
    // protected members and function
};
```

Private members: These can be accessed only from within the members of the same class.

```
class Private_Access_Specifier
{
 private:          // private access specifier
 int a;           // Data Member Declaration
 void display();    // Member Function declaration
}
```

Protected members: These can be accessed only from within other members of the same class and its derived classes.

```
class Protected_Access_Specifier
{
```

```
protected:        // protected access specifier
int a;            // Data Member Declaration
void display();   // Member Function Declaration
}
```

Public members: These can be accessed from anywhere where the object is accessible.

```
class Public_Access_Specifier
{
public:           // public access specifier
int a;            // Data Member Declaration
void display();   // Member Function declaration
}
```

Specifiers	Within Same Class	In Derived Class	Outside the Class
Private	Yes	No	No
Protected	Yes	Yes	No
Public	Yes	Yes	Yes