

Class- Friend Functions

A friend function of a class is defined outside that class' scope but it has the right to access all private and protected members of the class. Even though the prototypes for friend functions appear in the class definition, friends are not member functions.

To declare a function as a friend of a class, precede the function prototype in the class definition with keyword friend:

```
class Box {  
private:  
    double width;  
  
    public:  
        double length;  
        friend void printWidth( Box box );  
        void setWidth( double wid );  
};
```

```
// Note: printWidth() is not a member function of any class.  
void printWidth( Box box ) {  
    /* Because printWidth() is a friend of Box, it can  
    directly access any member of this class */  
    cout << "Width of box : " << box.width << endl;  
}
```