

# Private Base-Class Members

**Private base-class data members are not directly accessible** to the derived class object member functions. To see how this works, in the editor, change the **Student** constructor so that it attempts to set the **private name** data member directly, (instead of using the **setName()** member function).

```
Student::Student(const string sname, long sid)
{
    // setName(sname); // comment this out
    name = sname;      // add this;
    studentID = sid;
}
```

Type **make** in the console. You'll see an error message that looks something like this:

```
student.cpp:8:3: error: string Person::name is private here:
  name = sname;
  ^~~~
```

Even though you can't access the **private name** data member from the derived **Student** class, the data member **exists inside the Student object nonetheless**. You know that is true, because the **inherited setName()** and **getName()** member functions work correctly, and without the existence of the **private** data member, that would not be possible.

*Private data members **are** inherited, in the sense that each derived class object contains a copy of each **private** variable defined in the base class, even though the member functions in the derived object are not free to directly access that variable.*



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