Classes

Lecture 3
Secs 2.3, 3.5, 4.1 - 4.3

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C supports the **struct** construct.

```c
struct Name
{
    // Declarations of data members
};
```
In C:
- Struct members are public.
- Members may be objects, but not functions.

In C++:
- Struct members may be designated `public`, `private`, or `protected`.
- Members are public by default.
- Members may be objects or functions.
The class construct in C++ is an enhancement of the struct construct in C.
Members may be designated **public, private, or protected**.

- Members are private by default.
- Members may be objects or functions.
Class Member-Access Operators

Example (Member-Access Operators)

```
Point2D p(2, 3);
cin >> p.x >> p.y;
Point2D* pp = &p;
cin >> pp->x >> pp->y;
```

- Use the dot operator . to access members through an object.
- Use the arrow operator -> to access members through a pointer to an object.
The **Point2D Class**

**Example (The Point2D Class)**
- Download `point2D.h`
- Download `point2D.cpp`
- Download and run `Point2DTest.cpp`
Assignment

Homework

- Read Section 2.3, pages 59 - 63.
- Read Section 3.5, pages 123 - 128.
- Read Section 4.1 - 4.3, pages 143 - 158.