# Composition and friend Functions

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## Composition

- All the data members we have seen so far have been simple variables (int, double, etc)
- It is possible to have objects of classes as data members of other classes
- · This is called composition

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#### Example

- Create a class Employee that will contain the employee name and the time the employee starts work and the time the employee finishes work
- The time should be represented as objects of class Time

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#### Friend Functions

- Only the member functions of a class have direct access to the private data members of the class
- friend functions are friends of the class that are defined outside of the class but still have access to private data members

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# friend Functions

- The function prototype is placed in the class, preceded by the keyword friend
- The function definition can be written anywhere without the class name (class::)
- The function is able to directly access the private data members

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## Summary

- · Today we covered
  - Composition
  - Friend Functions
- Completed pages 478 489

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