## Static Type and Dynamic Type Solutions

## Static Type and Dynamic Type

- Explain the difference between the static type of a variable and its dynamic type
  - The static type is the type used in the variable declaration
  - This is always known at compile time
  - The dynamic type is the type of the variable in memory
  - This may not be known until run time
  - Usually, the static type of a variable and its dynamic type are the same
  - However, if we access a derived class object through a pointer (or reference) to its base class, they are different

## Using the Dynamic Type

• Write a simple program that uses the dynamic type of an object