

Interfaces and Virtual Functions Exercises

Pure virtual function

- What is meant by a "pure virtual member function"?

Pure virtual function

- Why are pure virtual functions useful?
- What effect does making a member function pure virtual have?

Abstract Base Class

- What is an "abstract base class"?
 - An abstract base class contains a pure virtual member function
- What is an abstract base class used for?

Abstract Base Class

- Modify your class hierarchy so that the base class is an abstract base class
- Verify that you cannot create objects of this class, or pass it by value
- Verify that a pure virtual member function must be implemented in the child class

Object Slicing

- What is meant by "object slicing?"
- Write a program in which object slicing occurs

Object Slicing

- How does using an abstract base class help with object slicing?
 - An abstract base class can only be passed by reference or by address
 - Object slicing occurs when a base class is passed by value
 - Since an abstract base class cannot be passed by value, object slicing cannot occur with it
- Alter your program to use an abstract base class
- Check that object slicing no longer occurs