Lesson: Inheritance in C++ Dr. Peter Liu

A. Overview

- 1. What is inheritance?
 - a) English: receive something from parents or grandparents
 - b) a family tree: a parent-child relation
 - c) a class relationship (IS-A)

a square is a rectangle, a student is a person, a manager is an employee, an apple is a fruit

d) an hierarchy of classes: base class, derived class

Person	Rectangle	Employee	Fruit
\uparrow	↑	\uparrow	↑
Student	Square	Manager	Apple

- 2. Why inheritance?
 - a) reuse of code
 - b) an abstraction of common features (data members, member functions)
- 3. How to program inheritance in C++?
- B. Video Lessons

Part 1: Class Declarations and the Client Program

https://ict.senecacollege.ca/~peter.liu/onlineS2020/Inheritance_Part1.mp4

Part 2: Class Implementations

https://ict.senecacollege.ca/~peter.liu/onlineS2020/Inheritance_Part2.mp4

C. Code Examples

shape.cpp, shape2.cpp

D. Course Notes

https://ict.senecacollege.ca/~btp200/pages/content/inher.html#inh https://ict.senecacollege.ca/~oop244/pages/content/inher.html#inh