CMSC 132: Object-Oriented Programming II

Callbacks

Department of Computer Science
University of Maryland, College Park
Course Evaluations

Please complete the course evaluations

The web site is:

https://www.courseevalum.umd.edu/portal
Callback

Definition

- Executable code passed as argument to other code

Approach

1. Higher-level code passes function as argument to lower-level code
   - In Java, pass object implementing interface
   - In C/C++, pass pointer to function
2. Lower-level code invokes callback function to perform desired task
Callback

Motivation
- Keeps code separate
  - Clean division between higher & lower-level code
- Promotes code reuse
  - Lower-level code supports different callbacks
- Supports event-driven programming
  - Lower-level code registers function as handler

Examples
- Timer
- Observer pattern → Observer.update()
- Visitor pattern → Visitor.visit()