Object Oriented Programming
Design Example

• Amazon.com Shopping Cart

• Stages in Design Process
  – Requirements
  – Specifications
  – Design

Define Shopping Cart Requirements

• System should be scalable
• Maintain list of books consumer wants to purchase
• Consumer profile
• Add/delete item from cart
• View cart
• Price (total purchase price)
• Place order
  – create invoice
  – request book from wholesaler or publisher
• Authenticate consumer/access control
• Persistence
• Operator access
• Order status
• Send confirmation
• Shipping choice

Shopping Cart Design

• Create objects and classes
  – shopping cart class
  – book class (stores title, author, ISBN, etc.)
  – consumer class
  – wholesaler interface
  – email interface
  – inventory interface
  – customer acct. interface
  – CGI interface
  – shipping interface
  – shipping method object

Shopping Cart Design (cont.)

• Flesh out objects and classes
• What methods do we need to support on the first three classes?
  – create
  – destroy
  – display
  – add/delete book objects
  – change shipping method
  – set consumer
  – place order

Shopping Cart Design (cont.)

• Question: If two people order the same book, will they place the same book object in their cart?