Project 1 (C++):Video Rental Store

- For a rental store: a program should keep track of customers borrowing and returning movies

- What are the objects?

- Rental item data: title, quantity on hand, & ID

- Customers data: name, phone, number of movies borrowed and their IDs

- The movie data is stored in a file with a letter indicating the movie category ('f' for feature, 'c' for comedy, 'h' for horror)

- When data is read into memory, the information is stored numerically (1='f', 2='c' 3='h')

Video Rental Store cont'd

- when data is displayed it is displayed as words ('feature', 'comedy', 'horror')

- when a customer returns a movie, the user enters his/her phone number to search the database

- after verification: the quantity on hand is decremented and movie id is added to the list of movie id borrowed by this customer

Case Study: Video Rental Store

- ☐ main() does not ask the user to enter data and does not output anything itself
- ☐ Try to find out
  - ■ who is asking the user to enter the phone number of a customer?
  - ■ Where is an error message is printed in case the customer ID does not exists?
  - ■ Who is responsible to update the files? etc.
- ⇒ A well-designed program pushes responsibility from client code to server code
- ⇒ Client code thus expresses the meaning of computations, not details of computations