Adam Ali, Omar Aguirre, Hyosang Park, Adam Mirza
CSS 343 A
Program 4 Design
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Overview:

This design describes a movie store checkout system. Several different classes describe the major components of this checkout system, which makes it modular. The design is also extensible by means of inheritance to easily add more functionality or types of media (be it other media types or simply more categories of movies) .

Of the several classes, there are three major objects that the design involves:

Customer, Media, and Transaction.

These classes describe components of the movie store checkout system that would be included in collections.

Customer keeps track of identification attributes and transaction history.

Media and its derivatives (for now, just *Movie – which has genre subclasses*) record stock counts and metadata (titles, names, dates, etc.).

Transaction encapsulates any operation that a given customer might execute, including the transaction type and the *Media* item associated with it.

Additionally, this design includes a binary tree class *BinTree* to store *Media* objects for efficient retrieval. This leaves the *Store* class, which includes the *Customer* hash table, the *Media* inventory, file reading operations, transaction execution, display operations.

Beyond main, the program is driven through the *Store* object representing one given store. This means that a chain of stores can be easily implemented from a client.

Description of main:

Main is only responsible for creating *ifstream* objects for the three external data files, and constructing a *Store* object.

Objects found in main:

ifstream	*x 3*
Store	*x 1*