

ENGM 2283 Project Proposal

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Description

We chose for our data structure to be centered on a library and that can keep track of books CDs and movies.

Date - Composite to Item

Purpose: The purpose of the date class is to keep track of a specific date in time.

Attributes: Month, Day, Year

Methods: Constructor, Overload Comparison Operators: ">", "<", and "==", print

Location – Composite to Item

Purpose: The location class would hold the information on where an item could be in a library.

Attributes: Int Floor, String Section, String aisle, Int shelf.

Methods: Constructor, print.

Items – Parent Class

Purpose: Items is a base class that movie, CDs, and Books are built from.

Attributes: String Title, Int genre (Dewey decimal system), date created, location.

Methods: Constructor, print

Books – Inherited

Purpose: Books are inherited from items and hold the information of the books in a library.

Attributes: Int length in pages, String Author, String publisher

Methods: Constructor, Print

CDs - Inherited

Purpose: CDs are Inherited from items, CDs store the information of a CD in a library.

Attributes: Float length (in minutes), String artist, String producer.

Methods: Constructor, Print.

Movies - Inherited

Purpose: Movies are inherited from items and store the information of a movie in a library.

Attributes: Int length (Minutes), String Director, Vector <string> cast.

Methods: Constructor, print.

UML Representation

