

LAB 211 Assignment

Type:	Long Assignment
Code:	J1.L.P0018
LOC:	400
Slot(s):	N/A

Title

CD House Program

Background

CD House Company has a collection of over 700 audio and video CD sets. Currently, the company wants to introduce 1 system. The system automatically manages the list of existing CDs and new CDs to be added. Suppose you are a member of the team implementing the solution for the above application problem, let's create an application written in Java language to manage a Real-time CD list by adding new CDs with provided details, searching CDs, and showing the entire CD list with full details. First, the program will print the following selection menu

Program Specifications

Build a user management program. With the following basic functions:

1. Add CD to the catalog
 2. Search CD by CD title
 3. Display the catalog
 4. Update CD
 1. Update CD
 2. Delete CD
 5. Save the account to file.
 6. Print list CDs from the file.
- Others- Quit


Features:


This system contains the following functions:

Display a menu and ask users to select an option.

- **Function 1: Add CD to the catalog - 100 LOC**
 - When the user selects "Add CD", the program will check for free space in the CD-containing array.
 - If there is room, the program will enter detailed information about the CD. Otherwise, the message "unable to add CD" will be output.
 - CD details include CD collection name (game/movie/music), CD type (audio/video), title, unit price, CD ID, and Publishing year. These details will be stored in the array containing the CDs, and the variable cdCounter – count the number of CDs –will be increased by 1 unit.
- **Function 2: Search CD by CD title - 50 LOC**
 - When the user selects item 2 to search for a CD by title, the program will check if there are any CDs in the archive list.
 - If so, the search will begin by matching the CD titles entered by the user with the saved CD titles. If found, will print the specific details of that CD, otherwise will give an error message.
- **Function 3: Display the catalog - 50 LOC**
 - When the user selects item 3 to print out a list of CDs, the program will check if there are any CDs in the list storage or not. If so, the full details of those CDs will be printed.
- **Function 4: Update CD**
 - **Function 4.1: Update CD information- 50 LOC**
 - User can edit the remaining information. If the Information is blank, then do not change old information.

- Show the result of the update: success or failure.
 - Ask to go back to the main menu.
- **Function 4.2: Delete CD information – 50 LOC**
 - User can delete a CD
 - Show the result of the delete: success or fail
 - Ask to go back to the main menu.
- **Function 5: Save to file - 50 LOC**
 - Write a list CD catalogs to the file (CD.dat).
 - Ask to go back to the main menu.
- **Function 6: Print all list CDs from file – 50 LOC**
 - Loading list of CDs from the file into the Collection
 - Displaying list CD order by the first name.
 - Ask to go back to the main menu

 The above specifications are only basic information; you must perform a requirements analysis step and build the application according to real requirements.

 The lecturer will explain the requirement only once on the first slot of the assignment.