**Library Management System**

This is a simple **Library Management System** developed in **C#** that manages books and employees within a library. It includes features for adding, borrowing, and returning books, as well as displaying books by a specific author. The system uses **event-driven programming** to track the number of available copies of each book and notify users of status changes.

**Structure**

**Book Class**

* **Fields**:
  + \_title, \_author, \_year, \_isAvailable, \_numOfCopies
* **Properties**:
  + Title, Author, Year, IsAvailable, NumOfCopies
* **Constructors**:
  + Book(string title, string author, UInt16 year, double numOfCopies)
  + Book(string title, string author)
  + Book(string title, string author, UInt16 year)
  + Book(string title, string author, double numOfCopies)
* **Methods**: None explicitly defined; validation is done within the setter of Year.
* **Indexers**: Not applicable for Book.

**Library Class**

* **Fields**:
  + \_libName, \_books, SuperVisior, librarian, dustman
* **Properties**:
  + LibName, this[int i] (Indexer for accessing books)
* **Constructors**:
  + Library(string libName, Book[] books)
* **Methods**:
  + AddBook(Book book)
  + BorrowBook(string bookName)
  + ReturnBook(string bookName)
  + ShowAuthorBooks(string authorName)
* **Delegates**:
  + NumOfBookChange: Delegate type for handling book copy changes (borrowing and returning).
* **Events**:
  + borrowBookHandler, returnBookHandler: Events triggered when borrowing or returning books to update the number of available copies.

**LibraryEmployee Class**

* **Fields**:
  + name, salary
* **Properties**:
  + name, salary
* **Constructors**:
  + libraryEmployee()
  + libraryEmployee(string name, int salary)

**Program Class**

* **Main Method**:
  + Initializes the library, adds books, and demonstrates borrowing and returning books. It also subscribes to the borrowBookHandler and returnBookHandler events to manage changes in book copies.
* **Event Handlers**:
  + BorrowProcess(Library lib, int i): Decreases the number of copies of a book when borrowed.
  + ReturnProcess(Library lib, int i): Increases the number of copies of a book when returned.