The following explains how the program is designed and used:

1. Design library.db as txt file:
   1. First line contains current book count, author count and publisher count in database

// bookCount, authorCount, publisherCount

e.g. 200 28 5

* 1. The following lines contains information about books, authors and publishers:

// book\_id (2 - 201), author\_id, publisher\_id, book\_count, price, year

e.g. 2, 5, 3, 89.99, 2010

// author\_id (202 - 230), last\_name, first\_name, book\_count

// publisher\_id (230 - 235), publisher\_name

1. Newbooks.txt file:
   1. Contains information of each book needs to be added
   2. The format looks like the following:

@Book{

book\_id: {6},

author\_id: {508},

pub\_id: {805},

title: {The Property of A Gentleman},

author: {Helen Dickson},

publisher: {puba},

year: {2005}

}

1. Internal data structures:
   1. Mainly used array of structures:
      1. Struct book
      2. Struct author
      3. Struct publisher
2. Memory management technique:
   1. Malloc
   2. Memcpy
3. Searching algorithm used:
   1. Quick sort
4. When the program finished an insertion operation:
   1. The new data will be stored in a file that is defined by users’ input
      1. E.g. afterInsertion.txt
5. When the program finished a deletion operation:
   1. The new data will be stored in a file that is defined by user’s input
      1. E.g. afterDeletion.txt