



Nour El-Din Gaser Yousri Algendi	89553
Khaled Hassan	77644
Mohamed Hussein	89644
Amr Samir Abdelsalam	94241
Mohamed Mostafa	77791

## Bookstore Database

### Project Introduction

Our project is a C++ CLI program which allows a bookstore to create and manage a simple database for its books through a simple application. The database rows go as follows:

ID	Name	Author Name	Price	Quantity
AAA	Name1	Author1	60	20
AAB	Name2	Author2	40.59	21
...	...	...	...	...

### Features

- Unique, randomly generated IDs. (Up to 17576 IDs).
- Add new books.
- Remove books by ID.
- Search for books by **any** field.
- Get a list of all books.
- Sell/restock books.
- Change the price of books.

View the rest and download to use from [GitHub](#).

```
Welcome to our book store! :)
What do you want to do?
0) Exit.
1) Add a new book.
2) Remove a book.
3) List all books.
4) Search.
5) Sell a book (decrease stock).
6) Restock a book (increase stock).
7) Change the price of a book.
Please enter a valid number (0 - 7): █
```

Screenshot from the application on launch.

## Bookstore

You can also view this project's source code on [gist.github](#)

<https://gist.github.com/nourgaser/680ce12707be66931e52df43beebf5da>

✉ Email me at [nour89553@student.must.edu.eg](mailto:nour89553@student.must.edu.eg)

## Problem Definition

A bookstore needs to keep track of its books. It needs to be able to:

- Add new books.
- Remove books.
- View all book.
- Query books by any attribute.
- Sell/restock books.
- Edit the price of a book.

given that the only attributes that they need to keep track of are books' names, authors, prices and quantities.

## Problem Solution

We create a simple database using a CSV (comma seperated values) file with its interface as a c++ CLI application. Each book will be assigned a unique ID of three letters, and the database will support all the basic CRUD operations. User input must be validated.

## Screenshots of the application

```
Welcome to out book store! :)
What do you want to do?
0) Exit.
1) Add a new book.
2) Remove a book.
3) List all books.
4) Search.
5) Sell a book (decrease stock).
6) Restock a book (increase stock).
7) Change the price of a book.
Please enter a valid number (0 - 7): █
```

Screenshot from the application on launch.

```
Please enter a valid number (0 - 7): 3
=====ALL BOOKS=====
CTS,Harry Potter,J.K. Rowling,60.000000,13
HMB,Game of Thrones,George R. R. Martin,45.000000,37
DOA,Burning Midnight,Will McIntosh,30.500000,7
SJI,Lord of the Rings,J. R. R. Tolkien,25.990000,8
CHA,Lord of the Flies,William Golding,39.990002,0
=====ALL BOOKS END=====
What do you want to do?
0) Exit.
1) Add a new book.
2) Remove a book.
3) List all books.
4) Search.
5) Sell a book (decrease stock).
6) Restock a book (increase stock).
7) Change the price of a book.
```

List all books

```
Please enter a valid number (0 - 7): 5
ID of the book to sell: SJI
Quantity to sell: 1
What do you want to do?
0) Exit.
1) Add a new book.
2) Remove a book.
3) List all books.
4) Search.
5) Sell a book (decrease stock).
6) Restock a book (increase stock).
7) Change the price of a book.
Please enter a valid number (0 - 7): 4
What do you want to search for? (We can search by ID, Name, Author, Price, Stock)
SJI
=====Search Result=====
SJI,Lord of the Rings,J. R. R. Tolkien,25.990000,7
=====Search Result End=====
```

Sell a book

```
Please enter a valid number (0 - 7): 4
What do you want to search for? (We can search by ID, Name, Author, Price, Stock)
Lord
=====Search Result=====
SJI,Lord of the Rings,J. R. R. Tolkien,25.990000,8
CHA,Lord of the Flies,William Golding,39.990002,0
=====Search Result End=====
What do you want to do?
0) Exit.
1) Add a new book.
2) Remove a book.
3) List all books.
4) Search.
5) Sell a book (decrease stock).
6) Restock a book (increase stock).
7) Change the price of a book.
```

Search for a book

\*you can view the rest on GitHub.

## Bookstore