

```
1 #pragma once
2
3 #ifndef STUDENT_TO_DO_REGION
4     /// Include necessary header files
5     /// Hint: Include what you use, use what you include
6
7     #include <cstdint>    // size_t
8     #include <string>
9     #include <vector>
10
11     #include "Book.hpp"
12 #endif
13
14
15 // Singleton Design Pattern
16 class BookDatabase
17 {
18 public:
19     // Get a reference to the one and only instance of the database
20     static BookDatabase & instance();
21
22     // Locate and return a reference to a particular record
23     Book * find( const std::string & isbn );           // Returns a pointer to the item in the database if
24                                                         // found, nullptr otherwise
25
26     // Queries
27     std::size_t size() const;                         // Returns the number of items in the database
28
29 private:
30     BookDatabase ( const std::string & filename );
31
32     BookDatabase ( const BookDatabase & ) = delete;    // intentionally prohibit making copies
33     BookDatabase & operator=( const BookDatabase & ) = delete; // intentionally prohibit copy assignments
34
35 #ifndef STUDENT_TO_DO_REGION
36     /// Private implementation details
37
38     // Private helper function
39     Book * find( const std::string & isbn, std::vector<Book>::iterator currentBook );
40
41     // We'll look at alternatives to std::vector later
42     std::vector<Book> _data;
43 #endif
44 };
```