

Instructions : Please attempt this on your own, and submit to the Courseweb. You can discuss among others but you need to attempt to complete this on your own. e.g. There can't be two similar submissions. **Plagiarism** is the practice of taking someone else's work or ideas and passing them off as one's own. This is considered to be a serious offence and there are tools such as Turnitin which can detect such submissions. Sharing your academic work to others is also an offence.

Have a look at the Library System Codebase at <https://goo.gl/d9Agsd>

This codebase is rather old and doesn't use all the ideas that we are using, also it will run probably only on a Windows Machine. This is also not the best example of a C++ codebase. You are not required to run this code. The codebase uses files, e.g. fstream, you are not required to know how that part of the code works.

In this codebase the methods are implemented inside the class itself.

Submission Instructions:

- Create a new Microsoft Word Document
- The filename should be your student number
- Write your Name, Student number, Group and Campus in the first page
- From the second page onwards, provide the answers only for each question (don't include the question)
- Upload to the courseweb using the link provided before the given deadline
- Please don't share your answers with others using any means.

Questions :

1. What are the classes in the codebase?
2. Name the properties and methods of each of the classes that you can find?
3. Name two functions that you can find in the codebase that handles student related operations?
4. Name one object that you can find in the codebase.
5. If you add a new property to one of the classes that stores details of books, what are the changes that you need to do to modify_book(), display_apb(), writebook() functions.
6. Describe Question 5 in terms of object oriented concepts?
7. Why do you think this (Question 6) is considered to be a good programming practice ?
8. How can you break this program into multiple program files? What are the advantages of doing so?
9. The keyword private is not used in declaring properties of classes in this codebase, then are the properties public or private?
10. Have a look at the main() function at the bottom of the codebase. Name two other functions that are called from the main function.