

# OBJECT ORIENTED PROGRAMMING

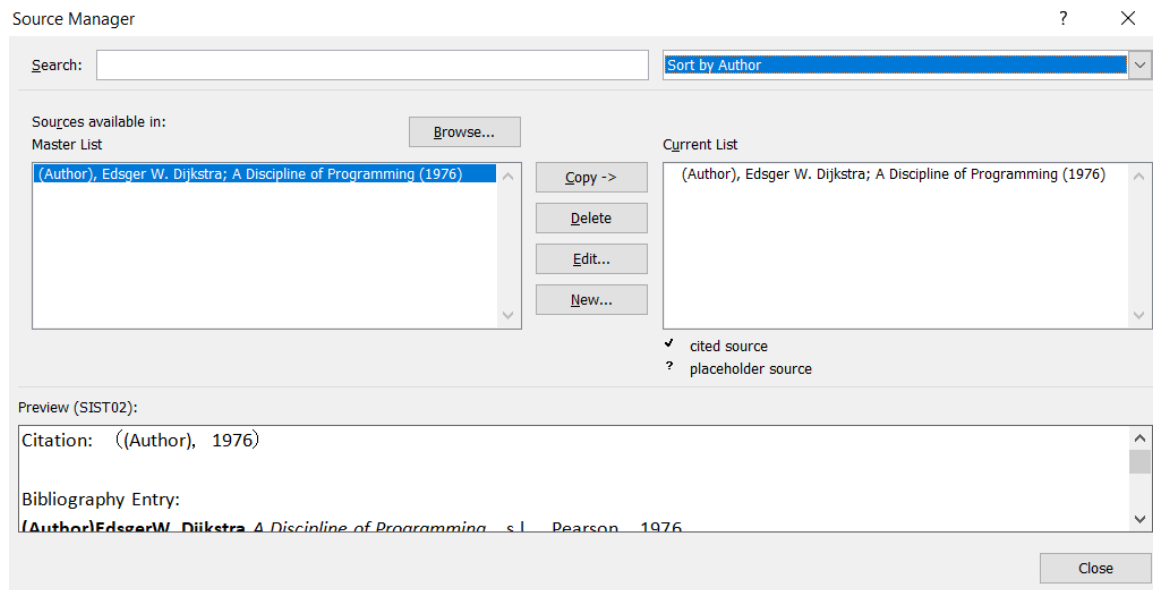
## LABORATORY 11

### OBJECTIVES

In this laboratory, you'll get familiar with the Qt programming framework, more specifically you'll use layouts to arrange user interface elements in a window and you'll learn how you can display multiple items in a list.

### LABORATORY

1. Install the Qt programming framework. You can choose to continue developing in Visual Studio (in this case you need to install the Qt extension in Visual Studio), or you can switch to QtCreator. See the tutorial from Lab 10 on how you can install Qt.
2. Create the following user interface **programmatically** (no QtDesigner!). You must use layouts to achieve this. Start by identifying all the user interface elements that you need, then think what types of layouts you need to properly arrange the UI elements as in the figure below.



3. The code provided in *starter.cpp* loads information about several books from the file *books.csv*. Populate the Master list from the user interface that you drew for Exercise 2 with the data from this file

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## PROJECT

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Create a wireframe to represent the user interface for your project. Use paper prototyping for this ([https://en.wikipedia.org/wiki/Paper\\_prototyping](https://en.wikipedia.org/wiki/Paper_prototyping)).

<https://www.usability.gov/what-and-why/user-interface-design.html>