Video Manager

Problem Description

You are currently working as a software developer for a media production company. Within this company your are part of a small team that is instructed to implement a new custom video editing software. One major component of the framework design is a video manager class that is able to store multiple video clips and should have functions for adding and deleting such video clips. The key requirements for the video manager class is that there is only one instance of this class and that this instance is easy to access from other components of the software framework that your team designs.

Task

Your team's task is to design and implement a video manager class using an object oriented language. Your implementation of the video manager should store multiple video clips and should have functions for adding and deleting such video clips. The key requirements for the video manager class is that there is only one instance of this class and that this instance is easy to access from other components of the software framework that you design. You don't need to take care of the implementation of the video clips, this will be the task of a different team, but you should use an empty proxy implementation for this class. In order to success with this task your manager recommends a recap on design patterns (e.g. D. Nesteruk, Design Patterns in Modern C++, https://doi.org/10.1007/978-1-4842-3603-1_5, available as ebook in the library) . What are challenges with your software design?

Relates to Objectives

1.2 1.3 1.4 2.2 2.6 2.7 2.8 2.10 3.4 4.3 4.8

(2 points, Pair)