

Research Plan

Implementing the Singleton pattern in C#

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Overall:

My research project is about how to implement the Singleton pattern in C#. Singleton is a pattern that allows the developer to assure that there is one and only one instance of the class and that instance must be accessed everywhere.

Research Question:

- How can the Singleton pattern be implemented in C#?
- What is the benefit of using Singleton in improving code?
- What are the disadvantages of using Singleton?
- Can the implementation be used as intended?

Research Method:

- Read materials from books and relevant sites
- Apply the knowledge in writing code
- Try to implement the Singleton in multiple forms
- Record the issues and the structure of the code

Conclusion:

The aim of the research clearly matches one of the unit learning outcomes: It is about the design pattern. Despite being simple, Singleton is widely used by developers thanks to its merits. Besides, it also helps students in enhancing their designing, development and debugging skills.