

## CSC305 UML Design Pattern Paper Literature Review

### Collect and evaluate your references

Not every source you find and read will make the cut. How do you decide what to rely on for your own understanding and what's worth citing?

For this milestone assignment, prepare a document in which you list of at least five possible sources that relate to your software design pattern. (Sources which were actually talking about something else don't count. Remember that your paper requires only two, so these don't all have to be fabulous sources). For each, write down:

- The title of the work
- The author (if it can be determined) and/or organization presenting the work
- A citation for the work (suggest IEEE style or MLA if that's easier. A bare URL is not a citation, but it's a start.)
- Rate **each** work for **each** of the CRAAP factors (see link below and InfoRhode video) on a scale of 1-5 where 5 is best. (In all, you will have (at least) 5 factors × 5 sources = a total of 25 of these factor rankings.)
- A brief statement explaining your evaluation of the source overall (or you may explain each of its 5 rankings individually).

**Do not use:** Wikipedia is not an appropriate source, but it can be a source of sources. The "Gang of Four" book (Gamma, Helm, Johnson, and Vlissides. *Design Patterns: Elements of Reusable Object-Oriented Software*. 1995, Addison-Wesley) is not a source you found; it's in the syllabus and provided the core of the class notes. You may certainly use it in either as it is an important primary source, but citing it doesn't demonstrate your own ability to find and evaluate sources which is the purpose of this milestone assignment. (BTW, there's at least one of the C.R.A.A.P. factors it shouldn't score too well on.) It would not count toward your five in this assignment nor the two for your paper.

When you've finished collecting your references, please **rearrange them in ranked order** so the best is at the top.

At the top of this document, copy and paste your brief statement from Milestone 1 -- which design pattern and how you would apply it to your project -- so I know the context. (If your response to Milestone 1 did not earn full points, please improve it first! You may email it to me first to make sure you're on the right track.)

Save this document on your own computer (or cloud). Copy and paste the entire contents into the text field that is available in the assignment linked.

## Milestone 2

1. Guizzo, G., Colanzi, T.E. & Vergilio, S.R. “Applying design patterns in the search-based optimization of software product line architectures.” *Softw Syst Model* 18, 1487–1512 (2019). <https://doi-org.uri.idm.oclc.org/10.1007/s10270-017-0614-9>

This article speaks about the use of different design patterns being used for search-based optimization. The article is from 2017 as far as the currency is involved. I am using this art because of its optimization and facade reference to my use of the pattern I am using for my mini paper. Two of the three authors are from the Department of Informatics at the Federal University of Parana in Brazil. I don't see any errors in the writing and the tone doesn't seem to have any bias in it. The purpose of this information is to inform you of the findings.

2. Caballero, Carlos. “Understanding Design Patterns: Facade using Pokemon and Dragonball Examples!” *Dev*, 5, Apr. 2019, <https://dev.to/carlillo/understanding-design-patterns-facade-using-pokemon-and-dragonball-examples-5868>

This article speaks directly to the usage of facade patterns and shows an example of it in the javascript language. Also, implements it in UML diagram to show it for understanding before the coding aspect. This Dev article was created on April 5, 2019, as far as currency. The utilization of this was based on its examples for the diagram examples and its intended audience is new students and other developers looking to enhance their code methods and reusability. This information is used to teach and inform with no influence biases.

3. Serrato-Barrera, R., Rodríguez-Gómez, G., Pérez-Sansalvador, J.C. et al. Software system design based on patterns for Newton-type methods. *Computing* 102, 1005–1030 19, Sep, 2019,. <https://doi-org.uri.idm.oclc.org/10.1007/s00607-019-00759-8>

This article speaks to a wide range of engineering applications use optimization techniques as part of their solution process. The article was published on September 10, 2019, and has been peer-reviewed. I would say the link is intended for at least the college level for some of the

formulas to incorporate fully. This article has been peer-reviewed and doesn't seem to have any spelling errors. I don't recall there being any biases I can recall and the information is to inform.

4. Aktas, Mehmet. "Hybrid cloud computing monitoring software architecture" *Concurrency Computat Pract Exper*. 2018 19, Sep 2019,. <https://onlinelibrary-wiley-com.uri.idm.oclc.org/share/3SRBSSUX7ZS2BSTSASHE?target=10.1002/cpe.4694>

This article refers to cloud computing provides scalable computing resources on demand. The article was published on May 25, 2018, and has been peer-reviewed. All of the links and citations work. Of course, I looked at various sources before picking this one. The URL ends with a .org giving it an organization and he attached his email on the top of the page. I don't see any errors in his writing and every article I looked up was filtered out by peer reviews. Lastly, from reading the article it is to inform you of his findings.

5. Poyias, Andreas. "Design Patterns - A quick guide to Facade pattern." *Medium* 27, Dec. 2018, <https://medium.com/@andreaspoyias/design-patterns-a-quick-guide-to-facade-pattern-16e3d2f1bfb6>

Andreas's article is a guide to implementing the pattern. The links to this article work and it was pointed out in 2018, as far as of date. I've checked from the URI database and google scholar before making this choice here. Andreas Poyias is a C++ software developer who works at Tradeweb with his Ph.D. on practical solutions for the implementation of compact dynamic data structures. I haven't found any grammar or any other errors from the writing. Also, my conclusion is this is to inform/teach the next set of developers.