

Collab discussion

Refer to the article by Padhy et al. (2018), specifically Table 1, where the authors present a list of factors which they consider influence the reusability of a piece of object-oriented software. In this collaborative discussion, you are required to prioritise this list, presenting your argument for the priorities assigned.

Initial Post

In my opinion these factors can be roughly categorised as follows:

ADP, RA, DP, DIP. These components can be used like a template for future development. If used effectively they can save a significant amount of time and standardise the software development process. Standardisation of methods can improve the reusability of other components and allow for more effective teamwork.

MIP, AP, MP, TCTD. If compatible, modules and algorithms can be reused to save a significant amount of time. However, they must be developed with this in mind to increase the reusability of the modules. Further, the reusability is likely to be limited to specific use cases.

UD, KR These factors can be used for continuous improvement and allow the streamlining of future work.

Based on the above I would prioritise the list as follows:

Architecture driven approach (ADP)

Requirement analysis (RA)

Design patterns (DP)

Documentation in project (DIP)

Modules in the program (MIP)

An algorithm used in the program (AP)

Models in the project (MP)

Test cases/test design (TCTD)

Used in the data project (UD)

Knowledge requirement (KR)

Service contracts (SC)

References

Padhy, N., Satapathy, S., & Singh, R.P. (2018) 'State-of-the-Art Object-Oriented Metrics and Its Reusability: A Decade Review. *Smart Computing and Informatics. Smart Innovation, Systems and Technologies. 77*. Springer.

Final Post

As one of my peers correctly pointed out, I left service contracts out of my list. The reason for this is because I did not think it really fit into any of the categories that I had laid out above. In my opinion it was also the least important aspect in terms of the development of the software.

Having also read the thoughts of my peers in their own posts, they have raised some excellent points which has made me understand that I have underestimated the importance of the AP and MP factors. Further, I agree with my peers that RA is in fact the highest priority in the list. This has made me re-evaluate my own list to increase the priority of each of these factors.

I would therefore now prioritise my list as follows:

RA, ADP, DP, MIP, AP, MP, DIP, TCTD, UD, KR, SC

