OOP_PCOM7E September 2022 Object Oriented Programming

Unit 1-7 Collaborative Discussion 1

Discussion Topic: Factors which Influence Reusability

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.

Assignment Guidance

- Your initial posting should respond to the question and be at least 200 words long. This should be labelled as '**Initial Post**'
- You will then respond to **at least 2 of your peers' posts** in unit 2 (each labelled as '**Peer Response**'). To guide your responses, look at the guidelines for the peer review process on the **Department's homepage**. Focus on the possible measures that could have been put in place in order to prevent the incidents highlighted by your peers. Please try to limit your response posts to **200-300 words maximum**, so that others may be encouraged to reflect on, and respond to your ideas.
- In Unit 3, you should provide a summary post based on your initial post, the feedback from your peers and the content of the three units. Please label this as '**Summary Post**'. It should be **300** words.
- Referencing: When you have referred to other authors thoughts, ideas and opinions in your posts, you must reference the author as you would in an academic assignment using the UoEO Harvard reference style.
- You will be not be assessed on your contribution to this forum throughout the module, but the tutor will post group feedback via a module announcement.
- This activity forms a component of your e-portfolio which you will submit in unit 12. All e-portfolio activities are intended to demonstrate your ability and strengths through evidence and reflection

Code reusability refers to how the code in the super-class help to inherit its properties to its sub-class that would expand the properties of the super-class to the sub-class. The resusability somehow marks the grade of the coding. Padhy et al. (2018) carried out a study and listed out the 11 factors that help to measure reusability.

Out of these 11 factors, I believe that top 3 important factors are: (1) requirement analysis, (2) knowledge requirement and (3) module setting.

Let's talk about the third important factor, module setting. It is important because it lays the blueprint of how the coding will developed. A good module division and setting will benefit the developing of the code and will direct how code reusability could be achieved. The second top important factor to me is the knowledge requirement. Knowledge requirement is not the technical ability to build the code from textbook, it requires the accumulation of experience and techniques from real-life working. Needless to say, software development is a very technical work which required lot of prior experience to ensure the coding are not only right but be good.

The top important factor is requirement analysis. All programming are a way to serve a user requirement. Once the user requirements changed, the whole program development has to be changed. . Unfortunately, most the time, it is not a user requirement, but a set of user requirements. Some of them are hidden and the user himself may not know it until the software is being tested or the final product is presented. It happens because they do these are some hidden requirements that the user takes it for granted, or due to the lack of understanding of the technical constrains during the development. A programmer is therefore required to translate the user requirements to the programming modeling and anticipate the concerns that will be raised by the user so as to leave some room for it during the program development. It involves the understanding of client's business, experience as to client's concerns as well as interprets user's requirements preciously and delivers the solutions effectively. All of these required the programmer excellent communication skills and experience. That's why I believe it is the top most important factor.

Reference:

Padhy et al., 2018, State-of-the-Art Object-Oriented Metrics and Its Reusability: A Decade Review, available on web on file:///C:/Users/elbwo/Downloads/10.1007978-981-10-5544-7421.pdf, accessed on 11 November 2022.

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