

## SOEN6222 ICE TASK 4

Testing is an important part in the software development process, in this process we ensure that the code meets the user requirements. When creating a project, it is important that the methods perform as desired and do not fail when the client makes use of the web application or site. In some cases, the programmer tests their own code and by doing so they benefit due to factors such as their knowledge of the code they have written. Developers have a thorough understanding of their code, this provides them with insight into the areas where they may have errors. This is beneficial in the early stages of development as they are able to point out issues within their own code (Fowler, 2003). Also, developers test their own code, they can get immediate feedback on errors and performance issues. This quick feedback enhances productivity by reducing the back-and-forth between development and testing teams. Bugs can also be identified and fixed quicker, accelerating the development cycle and reducing time-to-market for software products (Jones, 2008).

Although self-testing by developers has its benefits, there are also disadvantages to a developer testing their own such as a large bias. Developers often have their own ideas on how their code should behave, which can lead to confirmation bias. They might unconsciously avoid testing certain components and overlook certain parts which can result in an inadequate project with bugs being produced (Kaner, Falk, and Nguyen, 1993). Time also raises an issue, as all developers already have demanding responsibilities related to writing and maintaining code. Adding testing responsibilities can lead to burnout and could heavily decrease the productivity of the developer. In some cases, developers may cut corners on testing due to deadlines, reducing the effectiveness of their tests, having a testing team ensures that this crucial phase of the development lifecycle gets the attention it deserves, improving the work flow and quality of the product produced (Boehm and Basili, 2001).

In conclusion, although the developers know their code well, it is better that a separate team is used for the testing of the product to balance the workload and ensure that a high-quality site or application is produced with the relevant features and protocols put in place.

## References

Beck, K. (2002). Test Driven Development: By Example. Addison-Wesley.

[Accessed 13 Oct 2024]

Boehm, B., & Basili, V. R. (2001). Software defect reduction top 10 list. IEEE Computer, 34(1), p135-137. [Accessed 13 Oct 2024]

Fowler, M. (2003). Refactoring: Improving the Design of Existing Code. Addison-Wesley. [Accessed 13 Oct 2024]

stoefln (2024). Assessing the Effectiveness of Developers Testing Their Own Code - Repeato. [online] Repeato. Available at:

<https://www.repeato.app/assessing-the-effectiveness-of-developers-testing-their-own-code/> [Accessed 14 Oct. 2024].

Jones, C. (2008). Applied Software Measurement: Global Analysis of Productivity and Quality. McGraw-Hill. [Accessed 13 Oct 2024]

Kaner, C., Falk, J., & Nguyen, H. Q. (1993). Testing Computer Software. Wiley. [Accessed 13 Oct 2024]