Identifying Research Questions and My Research Abstract

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1 Take three research paper abstracts in your area, and mark their four questions.

1.1 Challenges and Solutions for Addressing Software Security in Agile Software Development: A Literature Review and Rigor and Relevance Assessment

1.1.1 What is the problem?

There has been a surge in the number of software security threats and vulnerabilities in recent times. At the same time, expectations towards software and data security are growing. Thus, there is a need to ensure that security-related tasks are effectively integrated in the software development processes.

1.1.2 Why is the problem a problem?

However, integrating security practices with agile software development is not trivial due to, for instance, differences in process dynamics and the concentration on functional vs non-functional requirements.

1.1.3 What is your secret sauce?

In this article, the authors present a literature review on the challenges and solutions when adopting security in an agile software development context.

1.1.4 Who cares?

Their findings suggest that there are ongoing efforts to integrate security-practices in agile methods, but more research is needed to make the processes more optimized and simpler for developers. A rigor and relevance assessment on primary studies highlights a need for improving the manner in which studies on the topic are performed as well as reported.

1.2 Software security in agile software development: A literature review of challenges and solutions

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1.3 Busting a Myth: Review of Agile Security Engineering Methods

1.3.1 What is the problem?

Engineering methods are essential in software development, and form a crucial element in the design and implementation of software security. Security engineering processes and activities have a long and well-standardized history of integration with software development methods. The inception of iterative and incremental software development methods raised suspicions of an inherent incompatibility between the traditional non-agile security processes and the new agile methods.

1.3.2 Why is the problem a problem?

This suspicion still affects the attitude towards agile security.

1.3.3 What is your secret sauce?

To examine and explore this myth, this study presents a literature review of a selected set of agile secure software development methods. A systematic literature

method was used to find the definitive set of secure agile software development methods, of which a core set of 11 papers was selected for analysis, and the security activities documented in the methods were extracted.

1.3.4 Who cares?

The results show a wide and well-documented adaptation of security activities in agile software development, with the observed activities covering the whole security development life cycle. Based on the analysis, the inherent insecurity of the agile software development methods can be declared to be a mere myth.

2 Come up with an abstract to a research paper that you might publish as part of the work you are doing towards your degree.

2.1 What is the problem?

Today, the Agile software development process is quite popular and is used by many organization around the world. The Agile methods provided flexibility by providing the ability to adapt to changing requirements. It is important to include security activities in the Agile methods as the security and robustness of a software system is of huge importance.

2.2 Why is the problem a problem?

The implementation of security activities into the Agile process will affect the software but it will also affect the team velocity, developer perception and other aspects software development process. About which not much is known and this study focuses on finding these answers.

2.3 What is your secret sauce?

To examine and explore answers to these question, the study will survey developers and other team members from various organizations. The analysis from the acquired data would give more insight into how security activities affect the overall Agile process.

2.4 Who cares?

This information will help organizations in better planning and implementing of security activities in Agile process for software development.