THE INVESTIGATION ON THE BEST PRACTICES OF EXTREME PROGRAMMING (XP) QUALITY IMPLEMENTATION AT UUM IT

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Abstrak

Abstract

Software engineering (SE) plays an important role for improving society’s well-being through the use of high quality software. There is noted that most of the software projects are failed, due to missing or poor software development practices in software organizations. Due to this reason, having a good and sound software development methodology is crucial for software organization to satisfy stakeholder’s requirements. One of the prevalent software development methodologies in SE is Extreme programming (XP) methodology. This methodology is an emerging SE approach, which is able to increase software quality and hence reducing software development time and cost. However, the level of application of this methodology among software developers in UUM IT centre is still unclear. Therefore, this study aims to investigate the application of XP practices in this centre. UUM IT was chosen as a case study because the role of this organization has changed to meet high demand among campus communities. Thus, research that focuses on the 12 XP practices of UUM IT is highly needed. This study was conducted using a semi-structured interview with five (5) experts from the UUM IT, to identify the successful implementation of the XP practices. The findings have shown that, most of the practices are used by UUM IT developers but need to improve. In contrast, some of the practices such as pair programming and test first programming are not used by the UUM IT developers. This is due to the nature and type of software projects involved, also because of the personality, experiences and the education level differences among developers. This study provides qualitative evident that can assist software project managers to guide them in improving software development practices for producing high quality software.
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CHAPTER ONE
INTRODUCTION

1.1 Overview

This initial chapter introduces the background on the phenomenon under study, problem statement, research questions, and research objectives. The research scope and significance of this research are also discussed. The chapter ends with the outline of the thesis structure and summary of the current chapter.

1.2 Background of Study

Software engineering (SE) is a domain that deals with engineering discipline in software construction. It has been kept formal and has practical methodologies as guidance in software development. It has been manifested by software life cycle that is composed of requirement elicitation and analysis, design specification, implementation, verification and validation, deployment and maintenance (Wu, 2011). Software development processes are an important part of software engineering, which influence the product outcome (Senapathi & Srinivasan, 2012; Päivärinta & Smolander, 2015). Several studies noted that software projects are considered a failure for many reasons. Tan (2011) refers that the research conducted by Gartner where data was collected from 845 project sample has shown that 42.5% did not deliver all the benefits, 44% were delivered over budget and 42% were not delivered on time. Furthermore, Gulla (2011) mentions that missing methodology is one of the reasons for software failure. The reason of software failure has also been discussed by Haughey (2011), who claims that poor or missing methodologies and tools are among the reasons.
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