

DEVELOPMENT OF A TEST CASE MANAGEMENT AND BUG TRACKING SYSTEM

BY

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DEGREE IN SOFTWARE ENGINEERING

[MONTH, YEAR]

CERTIFICATION

This is to certify that this research project titled "Development of a Test Case Management and Bug Tracking System" was carried out by [STUDENT'S FULL NAME], and has been read and approved as meeting the regulations governing the award of the degree of Bachelor of Science (B.Sc.) of the University of Lagos.

PROJECT SUPERVISOR

Date

HEAD OF DEPARTMENT

Date

EXTERNAL EXAMINER

Date

DEDICATION

This research project is dedicated to Almighty God, the giver of life, wisdom, and understanding, who has been my source of strength throughout the course of this study. It is also dedicated to my beloved parents and family for their unwavering love, prayers, and support.

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ABSTRACT

This study developed and evaluated a Web software solution for development within the Nigerian context, using the University of Lagos as the reference environment. The study was guided by four specific objectives: to analyse the existing manual process and its challenges; to design a Web application that addresses those challenges; to implement the proposed system using appropriate programming languages and frameworks; and to test and evaluate the system for functionality, usability, and reliability. The pragmatic research design adopted for the study was anchored on the Technology Acceptance Model and the UTAUT. A total of 78 users were purposively selected for the usability evaluation, out of which 72 responses were found valid for analysis. Data were analysed using percentage scores, mean scores on the System Usability Scale (SUS), and functional test results at a 0.05 level of significance. The findings revealed that the proposed system achieved an overall usability score of 85.2% and significantly reduced the mean processing time compared with the existing manual approach. The study recommends the deployment of the system for full-scale adoption, periodic maintenance, and sustained training of users so as to maximise its benefits.

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CHAPTER ONE: INTRODUCTION

1.1 Background to the Study

The study of development of a test case management and bug tracking system is situated within a body of scholarship that has grown rapidly in the past two decades. This section of the chapter traces the background to the study by examining the historical, theoretical, and practical dimensions of the subject.

development occupies a prominent position in contemporary debates about test and national development. National policies and programmes have sought, with varying degrees of success, to respond to the realities of development and test. The work of Okonkwo and Ekwueme (2023) extended earlier analyses by demonstrating that test reinforces the effects of development. These observations collectively invite a reconsideration of standard assumptions regarding test. Findings reported by Alade and Famuyide (2018) observed that respondents with greater exposure to development recorded markedly different results. Sustained engagement with the issues raised here is therefore essential if meaningful progress is to be recorded. Despite these advances, notable gaps persist, particularly with respect to context-specific evidence from Nigeria.

development continues to command considerable attention among researchers, policymakers, and practitioners in software engineering. The Nigerian context presents peculiar challenges, ranging from infrastructural deficits to institutional weaknesses, which shape the manner in which development unfolds. Research by Eze and Adekunle (2021) using mixed methods provided particularly rich insight into the mechanisms connecting development and test. Such findings reinforce the argument that development deserves a place of priority on the development agenda. Research by Dauda and Ogunlana (2021) using mixed methods provided particularly rich insight into the mechanisms connecting development and test. These observations collectively invite a reconsideration of standard assumptions regarding test. It is therefore imperative that further empirical work be undertaken to clarify the causal relationships at stake.

In both global and African literatures, development is now regarded as a key index of institutional performance. Globalisation and technological change have intensified both the opportunities and the challenges associated with development. A notable study by Dauda and Ogunlana (2017) argued that the impact of development is substantially mediated by the quality of institutions. The cumulative effect of these dynamics is a situation that demands urgent and coordinated intervention. Findings reported by Chukwu and Ibrahim (2018) observed that respondents with greater exposure to development recorded markedly different results. The weight of evidence therefore points toward a renewed commitment to evidence-based decision-making. Nevertheless, the existing literature is not without its limitations, and several questions remain unresolved.

Over the past two decades, development has become increasingly significant within the Nigerian landscape and beyond. Evidence from national agencies indicates that development has grown considerably in recent times, underscoring the need for systematic inquiry. The aggregate picture emerging from Adeniyi and Salami