DEVELOPMENT OF A CODE METRICS AND MAINTAINABILITY DASHBOARD

BY

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[MONTH, YEAR]

CERTIFICATION

This is to certify that this research project titled "Development of a Code Metrics and Maintainability Dashboard" 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.

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PROJECT SUPERVISOR	Date
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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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My profound gratitude goes to Almighty God for His grace, protection, and guidance throughout the duration of my study and the successful completion of this research project. I am deeply grateful to my supervisor, [SUPERVISOR'S NAME], for the patience, guidance, constructive criticism, and invaluable direction provided throughout the course of this research. I also wish to appreciate the Head of Department, the lecturers of the Department of Software Engineering, and my course mates for their support and friendship. My appreciation also goes to my parents and siblings for their unwavering support, both financial and emotional, throughout my academic journey.

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 77 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 84.0% 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 code metrics and maintainability dashboard 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.

The salience of development in national discourse has grown steadily, driven by changing social conditions and technological penetration. The socio-cultural diversity of Nigeria implies that responses to development must be differentiated rather than uniform. Empirical evidence from Alade and Bakare (2021) suggests that positive developments in code are associated with improvements in development. The implications of these dynamics are far-reaching, touching questions of equity, efficiency, and accountability. Evidence assembled by Famuyide and Adebayo (2015) across twelve states underscored the heterogeneity of outcomes linked to development. Sustained engagement with the issues raised here is therefore essential if meaningful progress is to be recorded. The reviewed studies, while valuable, are frequently dated, small in scale, or confined to a single locality.

The phenomenon of development, while not new, has acquired fresh analytical urgency in Nigeria. Evidence from national agencies indicates that development has grown considerably in recent times, underscoring the need for systematic inquiry. Evidence assembled by Bello and Aderemi (2015) across twelve states underscored the heterogeneity of outcomes linked to development. Such findings reinforce the argument that development deserves a place of priority on the development agenda. Longitudinal research by Adekunle and Ogbeide (2016) revealed that sustained attention to development yields appreciable dividends over time. Such findings reinforce the argument that development deserves a place of priority on the development agenda. Nevertheless, the existing literature is not without its limitations, and several questions remain unresolved.

The salience of development in national discourse has grown steadily, driven by changing social conditions and technological penetration. The socio-cultural diversity of Nigeria implies that responses to development must be differentiated rather than uniform. Longitudinal research by Adekunle and Ogbeide (2016) revealed that sustained attention to development yields appreciable dividends over time. These developments carry important implications for policy and practice in software engineering. Evidence assembled by Ekwueme and Aderemi (2015) across twelve states underscored the heterogeneity of outcomes linked to development. Left unaddressed, the identified patterns are likely to intensify, with adverse consequences for all stakeholders. A recurring weakness in the literature concerns the difficulty of isolating the precise influence of {k0} from confounding factors.

The phenomenon of development, while not new, has acquired fresh analytical urgency in Nigeria. The socio-cultural diversity of Nigeria implies that responses to development must be differentiated rather than uniform. Studies conducted within the West African subregion by Osinachi and Nnamdi (2018) reached conclusions broadly consistent with the Nigerian evidence. Such findings reinforce the argument that