

# **DEVELOPMENT OF A PREDICTIVE MODEL DEPLOYMENT AND API PLATFORM**

BY

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DEGREE IN DATA SCIENCE

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## CERTIFICATION

This is to certify that this research project titled "Development of a Predictive Model Deployment and API Platform" 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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Date

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Date

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EXTERNAL EXAMINER

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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.

## **ACKNOWLEDGEMENT**

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 Data Science, 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 61 users were purposively selected for the usability evaluation, out of which 53 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 85.1% 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 predictive model deployment and api platform 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. Globalisation and technological change have intensified both the opportunities and the challenges associated with development. Empirical evidence from Kalu and Adeniyi (2021) suggests that positive developments in predictive are associated with improvements in development. These observations collectively invite a reconsideration of standard assumptions regarding predictive. Comparative work by Olawale and Adekunle (2022) across several states uncovered a consistent pattern linking development with predictive. Accordingly, there is a growing consensus that deliberate policy action is required. A recurring weakness in the literature concerns the difficulty of isolating the precise influence of {k0} from confounding factors.

development, when examined in relation to predictive, reveals complex and often paradoxical dynamics. The Nigerian context presents peculiar challenges, ranging from infrastructural deficits to institutional weaknesses, which shape the manner in which development unfolds. Empirical evidence from Eze and Adekunle (2021) suggests that positive developments in predictive are associated with improvements in development. Left unaddressed, the identified patterns are likely to intensify, with adverse consequences for all stakeholders. Comparative work by Aderemi and Nwosu (2022) across several states uncovered a consistent pattern linking development with predictive. For practitioners, the practical significance of development cannot be overstated, given its demonstrable link with predictive. Nevertheless, the existing literature is not without its limitations, and several questions remain unresolved.

Few subjects attract as much policy interest in contemporary Nigeria as the question of development. Globalisation and technological change have intensified both the opportunities and the challenges associated with development. A notable study by Aderemi and Nwosu (2017) argued that the impact of development is substantially mediated by the quality of institutions. Sustained engagement with the issues raised here is therefore essential if meaningful progress is to be recorded. The aggregate picture emerging from Adebayo and Nwosu (2023) points to a modest but consistent association between development and the outcomes of interest. The weight of evidence therefore points toward a renewed commitment to evidence-based decision-making. A recurring weakness in the literature concerns the difficulty of isolating the precise influence of {k0} from confounding factors.

The relationship between development and predictive has been the subject of sustained academic interest across several disciplines. Public institutions at the federal, state, and local levels have developed programmes that seek to mainstream development into routine governance. The aggregate picture emerging from Adeniyi