**KADUNA POLYTECHNIC**

**ONLINE FURNITURE AUCTION SYSTEM**

**BY**

**CONFIDENCE ONYEDINMA**

**CST20HND0406**

**THIS PROJECT IS SUBMITTED TO THE DEPARTMENT OF COMPUTER SCIENCE KADUNA POLYTECHNIC IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF HIGHER NATIONAL DIPLOMA IN COMUPTER SCIENCE**

**DEPARTMENT OF COMPUTER SCIENCE**

**SCHOOL OF APPLIED SCIENCE**

**COLLEGE OF SCIENCE AND TECHNOLOGY**

**KADUNA - NIGERIA**

**JULY, 2023**

**DECLARATION**

I hereby declare that the project has been conducted solely by me under the guidance of Mr. Muhammad Haruna Isa, department of **COMPUTER SCIENCE,** Kaduna Polytechnic, Kaduna and I have neither copied someone’s work nor has someone else done it for me. Authors whose works have been referred to in this project have been acknowledged.

Student Signature Phone Number Date

\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_

**APPROVAL**

This is to certify that this is an original work undertaken by Confidence Onyedinma CST20HND0356 and has been prepared in accordance with the regulations governing the preparation and presentation of projects at Kaduna Polytechnic.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Mr. Muhammad Haruna Isa

(Project Supervisor)

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Mrs. Mora Hafsatu

(Head of Department Name)

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

External Examiner

**DEDICATION**

This project is dedicated to Almighty God the beneficence the merciful and (the creator of the universe) for the gift of life and good health given to me throughout my programme.

**ACKNOWLEDGEMENT**

I would like to express my heartfelt gratitude to my parents, who have always been my biggest supporters and sources of inspiration. Your unwavering love and encouragement have motivated me to pursue my visions and achieve my goals.

I would also like to thank my supervisor, who has provided invaluable guidance and support throughout my academic journey. Your expertise and mentorship have been instrumental in shaping my professional growth and development.

Lastly, I would like to acknowledge my friends, who have always been there for me through thick and thin. Your friendship and support have enriched my life and made it a more enjoyable and memorable experience.

Thank you all for your unwavering support and for being a part of my life. I am truly grateful.

**TABLE OF CONTENTS**

Cover Page - - - - - - - - - -

Title Page - - - - - - - - - - ii

Declaration - - - - - - - - - - iii

Approval Page - - - - - - - - - iv

Acknowledgement - - - - - - - - - v

Table of Contents - - - - - - - - - vi

List of Figure - - - - - - - - - - ix

List of Tables - - - - - - - - - - x

List of Abbreviations - - - - - - - -

Abstract - - - - - - - - - - xi

**CHAPTER ONE: INTRODUCTION**

1.1 Background of the Study - - - - - - - 1

1.2 Statement of the Problem - - - - - - - 2

1.3 Aims and Objectives of the Study - - - - - - 2

1.4 Scope of the Study - - - - - - - - 2

1.5 Limitation of the Study - - - - - - - 3

1.6 Significance of the Study - - - - - - - 3

1.7 Project Organization - - - - - - - - 3

1.8 Definition of Terms - - - - - - - - 4

**CHAPTER TWO: LITERATURE REVIEW**

2.1 Introduction - - - - - - - - - 6

2.2. Literature Review - - - - - - - - 6

2.3 Summary of Literature Review - - - - - - 11

2.4 Description of the Current System - - - - - - 12

2.4.1 Problems Inherent in the Current System - - - - - 13

2.5 Analysis of the Proposed Furniture Auction System - - - 14

2.5.1 Advantages of the Proposed System - - - - - - 15

**CHAPTER THREE: METHODOLOGY AND DESIGN**

3.1 Introduction - - - - - - - - - 16

3.2 Method of Data Collection - - - - - - - 16

3.2.1 Observation of the Work Environment - - - - - 16

3.2.2 Interview - - - - - - - - - 16

3.2.2 Documentation - - - - - - - - 17

3.3 System Modeling - - - - - - - - 17

3.3.1 Use Case Diagram - - - - - - - - 18

3.3.2 Class Diagram - - - - - - - - 18

3.3.3 Activity Diagram - - - - - - - - 20

3.4 Database Design - - - - - - - - 22

3.5 Output Design - - - - - - - - 24

3.6 Input and User Interface Design - - - - - - 25

3.7 System Requirement - - - - - - - - 27

3.7.1 The Hardware Requirement - - - - - - - 27

3.7.2 Software Requirement - - - - - - - 27

3.8 Choice of Programming Language - - - - - - 27

**CHAPTER FOUR: SYSTEM IMPLEMENTATION EVALUATION**

4.1 Introduction - - - - - - - - - 28

4.2 System Testing and Evaluation - - - - - - 28

4.3 System Installation - - - - - - - - 28

4.4 Security Measures - - - - - - - - 29

4.5 Sample Outputs - - - - - - - - 29

**CHAPTER FIVE: SUMMARY CONCLUSION AND RECOMMENDATION**

5.1 Summary - - - - - - - - - 36

5.2 Conclusion - - - - - - - - - 36

5.2 Recommendation - - - - - - - - 36

References - - - - - - - - - - 38

Appendix - - - - - - - - - - 39

**LIST OF FIGURES**

**FIGURE PAGE**

3.1 System Use Case Diagram - - - - - - 18

3.2 System Class Diagram - - - - - - 19

3.3.1 Login Activity Diagram - - - - - - 20

3.3.2 Adding Furniture Activity Diagram - - - - - 21

3.3.3 Bidding Furniture Activity Diagram - - - - - 22

3.6.1 Furniture Auction Home Page - - - - - 25

3.6.2 User Login Screen - - - - - - 26

3.6.3 Add Furniture Screen - - - - - - 26

4.6.1 Homepage - - - - - - - - 29

4.6.2 User Login - - - - - - - - 30

4.6.3 Admin Dashboard - - - - - - - 30

4.6.4 Create a Bidder Account - - - - - - 31

4.6.5 Manage Bidder’s Account - - - - - - 31

4.6.6 Upload Furniture - - - - - - - 32

4.6.7 Manage Furnitures - - - - - - - 32

4.6.8 Create an Admin Account - - - - - - 33

4.6.9 Manage Administrators - - - - - - 33

4.6.9.1 Bidder’s Dashboard - - - - - - - 34

4.6.9.2 on-Going Auction - - - - - - - 34

4.6.9.3 Bid Furniture - - - - - - - - 35

4.6.9.4 View Auction Winners - - - - - - 35

**LIST OF TABLES**

**TABLE PAGE**

3.1 Users Input Specification Table - - - - - - 19

3.2 Students Input Specification Table - - - - - - 19

3.3 Schedules Input Specification Table - - - - - - 20

3.4 User Output Design Table - - - - - - - 20

3.5 Students Output Design Table - - - - - - 21

3.6 Schedule Output Design Table - - - - - - 21

**ABSTRACT**

*Auctions have evolved from traditional in-person events to online platforms, providing convenience and accessibility to buyers and sellers. However, the internet's lack of specified rules and regulations has introduced challenges such as fraud and unsafe transactions. This study focuses on developing an online furniture auction system that aims to provide a convenient and secure means of obtaining products through bidding. The system allows users to list their furniture items for auction, accompanied by descriptions and visual presentations. Bidders can participate remotely through an internet connection and personally inspect the item before concluding the transaction with the seller. The system utilizes modern technologies such as HTML, CSS, JavaScript, Python (Django), and MySQL for frontend and backend development. The scope of the study is limited to furniture auctions, and only registered users can participate. The significance of the study lies in improving the security of online furniture auctions and increasing user confidence in participating in such transactions*.