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**DESIGN AND IMPLEMENTATION OF AN ONLINE MENU ORDERING
SYSTEM TO ENHANCE EFFICIENCY AT LEGACY CAFE**



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Finally, I hope that this thesis can be a useful reference for future researchers and contribute positively to the development of digital systems in the food and beverage industry.

ABSTRAK

Transformasi digital dalam industri makanan dan minuman telah mendorong banyak perniagaan, termasuk kafe berskala kecil, untuk menggunakan sistem pesanan menu bagi meningkatkan kecekapan perkhidmatan dan kepuasan pelanggan. Kajian ini bertujuan untuk mereka bentuk dan membangunkan sistem pesanan menu berasaskan web untuk Legacy Cafe bagi menangani isu seperti masa menunggu yang lama, pesanan yang tidak tepat, dan ketidakcekapan operasi. Sistem ini dibangunkan menggunakan metodologi Agile, dengan Laravel sebagai rangka kerja utama pembangunan, dan dilaksanakan pada platform berasaskan web yang boleh diakses melalui pelayar internet biasa. Ciri-ciri utama termasuk antara muka pesanan yang mesra pengguna, penjejakan pesanan masa nyata, pengurusan inventori, dan papan pemuka pelaporan untuk pemilik kafe. Penglibatan aktif pengguna dilakukan melalui perbincangan kumpulan fokus dan sesi maklum balas berulang bagi memastikan sistem memenuhi keperluan operasi sebenar. Ujian kebolegunaan telah dijalankan bersama kakitangan dan pelanggan kafe, yang menunjukkan maklum balas positif dari segi kemudahan penggunaan, kepantasan, dan kebolehpercayaan sistem. Namun begitu, skop sistem ini pada masa ini terhad kepada pesanan dalam kedai dan belum menyokong aplikasi mudah alih atau integrasi perkhidmatan penghantaran pihak ketiga. Walaupun dengan had tersebut, hasil awal menunjukkan potensi besar dalam mengurangkan masa menunggu, meningkatkan ketepatan pesanan, dan mempertingkatkan pengalaman pelanggan secara keseluruhan. Kajian ini bukan sahaja menyokong usaha pendigitalan perniagaan kecil dalam sektor makanan dan minuman, malah menyediakan asas berskala untuk penambahbaikan dan pelaksanaan yang lebih meluas pada masa hadapan.

Kata kunci - Transformasi Digital, Sistem Pesanan Menu Berasaskan Web, Industri Makanan dan Minuman, Laravel, Metodologi Agile, Ujian Kebolegunaan, Kepuasan Pelanggan, Kecekapan Operasi, Pengurusan Inventori, Reka Bentuk Berpusatkan Pengguna, Legacy Cafe

ABSTRACT

Digital transformation in the food and beverage industry has encouraged many businesses, including small cafes, to adopt menu ordering systems to improve service efficiency and customer satisfaction. This study aims to design and develop a web-based menu ordering system for Legacy Cafe to address common issues such as long wait times, inaccurate orders, and operational inefficiencies. The system is developed using the Agile methodology, with Laravel as the primary development framework and deployed on a web-based platform accessible through standard browsers. Key features include a user-friendly ordering interface, real-time order tracking, inventory management, and a reporting dashboard for the cafe owner. Active involvement from users was maintained through focus group discussions and iterative feedback sessions to ensure the system met real operational needs. Usability testing was conducted with cafe staff and customers, revealing positive responses in terms of system intuitiveness, speed, and reliability. However, the system's scope is currently limited to in-store ordering and does not yet support mobile apps or third-party delivery integration. Despite this boundary, the initial results indicate significant potential in reducing wait times, improving order accuracy, and enhancing the overall customer experience. This research not only supports the digitalization efforts of small food and beverage businesses but also provides a scalable foundation for future enhancements and broader implementations across similar service environments.

Keywords - Digital Transformation, Web-Based Menu Ordering System, Food and Beverage Industry, Laravel, Agile Methodology, Usability Testing, Customer Satisfaction, Operational Efficiency, Inventory Management, User-Centered Design, Legacy Cafe

TABLE OF CONTENT

FINAL PROJECT APPROVAL.....	ii
ACKNOWLEDGEMENT.....	iii
ABSTRACT.....	iv
TABLE OF CONTENT.....	vi
LIST OF FIGURES.....	ix
LIST OF TABLES.....	xi
CHAPTER 1 INTRODUCTION.....	1
1.1 Background.....	1
1.2 Problem Statement.....	2
1.3 Objectives.....	3
1.4 Scope.....	3
1.4.1 User Scope.....	3
1.4.2 System Scope.....	4
1.5 Significance.....	5
1.6 Chapter Summary.....	6
CHAPTER 2.....	8
2.1 Introduction.....	8
2.2 Explanation of Key Terms, Terminologies, and Theories.....	9
2.2.1 Online Ordering System.....	9
2.2.2 Service Efficiency.....	10
2.2.3 User Interface (UI) and User Experience (UX).....	10
2.2.4 Backend and Frontend Development.....	10
2.2.5 Framework and Principles.....	11
2.2.6 Relevant Theories.....	13
2.3 Existing Solutions and Technologies.....	14
2.3.1 GloriaFood.....	14
2.3.2 UpMenu.....	15
2.3.3 Menu Tiger.....	15
2.3.4 Food Ordering Platforms.....	15
2.4 Relevant Algorithms and Methodologies.....	16

2.4.1	Recommendation Algorithms	16
2.4.2	Queue Management Algorithms	16
2.4.3	Responsive Web Design and Mobile Optimization Techniques.....	17
2.4.4	Data Analytics and Reporting.....	17
2.4.5	Inventory Management Algorithms.....	17
2.5	State of the Art in the Field.....	18
2.6	Critical Review of Similar Products or Systems.....	20
2.7	Summary of Finding	23
2.8	Chapter Summary	24
CHAPTER 3.....		25
3.1	Introduction.....	25
3.2	Software Development Methodology	26
3.2.1	Chosen Metodology and Justification – Agile Methodology	28
3.2.2	Step by Step Explanation of Phases the Chosen Methodology	30
3.3	Research Methodology	32
3.3.1	Chosen Research Methodology and Justification.....	33
3.3.2	Focus Group Design and Sample	34
3.3.3	Analysis of Focus Group.....	35
3.3.4	Proposed System Requirement.....	37
3.4	Proposed System Design	37
3.4.1	UML Modeling of the Proposed system.....	39
3.4.2	Hardware Design.....	44
3.5	Chapter Summary	45
CHAPTER 4.....		46
4.1	System Architecture	46
4.2	Design Specifications.....	48
4.2.1	Wireframe User Interface	49
4.2.2	System Requirement.....	54
4.3	Implementation Process	55
4.3.1	Front-End Development	56
4.3.2	Back-End Development.....	63
4.3.3	Database Configuration	66

4.4	Testing	68
4.5	Presentation of Result	70
4.5.1	Functional Performance.....	70
4.5.2	Screenshots of Live System	70
4.6	Discussion of Finding	77
4.6.1	Improved Service Efficiency	77
4.6.2	Reduction in Human Error	77
4.6.3	Enhanced Customer Experience	77
4.6.4	Technical Stability and Flexibility	78
4.7	Implications of Findings	78
4.7.1	Operational Implications	78
4.7.2	Customer Experience and Engagement	79
4.7.3	Business Intelligence and Decision-Making	79
4.7.4	Implications for Future Development and Scaling.....	80
4.7.5	Theoretical Implications	80
4.8	Limitations of the Study	80
4.8.1	Limited Testing Environment	81
4.8.2	Absence of Advanced Features	81
4.8.3	Platform Dependency and Scalability	81
4.8.4	User Experience Limitations	82
4.8.5	Limited Security Measures.....	82
CHAPTER 5.....		83
5.1	Summary of Findings	83
5.2	Conclusions.....	84
5.3	Recommendations for Future Research	84
REFERENCES		86

LIST OF FIGURE

Figure 3.1 Agile Methodology	30
Figure 3.2 Use Case Diagram.....	39
Figure 3.3 Package Diagram	40
Figure 3.4 Class Diagram	40
Figure 3.5 Colaboration Diagram.....	41
Figure 3.6 Sequence Diagram	41
Figure 3.7 Component Diagram	42
Figure 3.8 State Machine Diagram.....	42
Figure 3.9 Activity Diagram.....	43
Figure 4.1 System Architecture	47
Figure 4.2 Homepage Wireframe	50
Figure 4.3 Cart Wireframe.....	50
Figure 4.4 Order Wireframe	51
Figure 4.5 Profile Staff Wireframe.....	51
Figure 4.6 Data Menu Wireframe.....	51
Figure 4.7 Add Menu Wireframe	52
Figure 4.8 Data Category Wireframe	52
Figure 4.9 Add Category Wireframe	52
Figure 4.10 Ordering Wireframe	53
Figure 4.11 Owner Profile Wireframe.....	53
Figure 4.12 Dashboard Wireframe	53
Figure 4.13 Data Menu Wireframe.....	54
Figure 4.14 Data Category Wireframe	54
Figure 4.15 Development Workflow	56
Figure 4.16 Customer Homepage.....	57
Figure 4.17 Best Seller Menu.....	57
Figure 4.18 List Menu	58
Figure 4.19 Cart.....	58

Figure 4.20 Menu Order	58
Figure 4.21 Staff Profile	59
Figure 4.22 Ordering	59
Figure 4.23 Menu List (staff)	60
Figure 4.24 Add Menu (staff).....	60
Figure 4.25 Category List (staff)	60
Figure 4.26 Add Category	61
Figure 4.27 Owner Profile	61
Figure 4.28 Dashboard	62
Figure 4.29 Menu List (owner)	62
Figure 4.30 Add Menu (owner).....	62
Figure 4.31 Category List (owner)	63
Figure 4.32 Add Category (owner)	63
Figure 4.33 Homepage	72
Figure 4.34 Best Seller Menu	73
Figure 4.35 List Menu	73
Figure 4.36 Cart.....	74
Figure 4.37 Ordering	75
Figure 4.38 Order	75
Figure 4.39 Data Menu.....	76
Figure 4.40 Owner's Dashboard.....	76

LIST OF TABLE

Table 2.1 Comparison of Product	21
Table 4.1 Specification	50
Table 4.2 Database Structure	66
Table 4.3 Folder Structure	68
Table 4.4 Login Testing	68
Table 4.5 Order Testing	69
Table 4.6 Add to Cart	69
Table 4.7 Edit Profile	69
Table 4.8 Change Password	69
Table 4.9 Add Menu	69
Table 4.10 Add Category	70