**ONLINE RESTAURANT BOOKING SYSTEM**

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This Project proposal is submitted to the faculty of Science Engineering and Technology in Partial Fulfillment of the Requirements for the Award of the Degree of Bachelor of Science in Computer Science of Tharaka University

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# **DECLARATION**

I declare this project as original idea submitted to faculty of physical science engineering and technology to the management of THARAKA university under the supervision of MR FRANCIS KAIRARIA the faculty member of THARAKA university and submitted in partial fulfilment of the requirement of diploma in information technology (it) and finally this project work report has not been submitted elsewhere either university or collage for the award of any degree or diploma.

NAME: DORCAS MUTHONI

SIGNATURE: ………………………..

JULY, 2024………………………….

APPROVAL

This project was conducted under our supervision and will be submitted with our approval as university supervisor.

Supervisor Name: FRANCIS KAIRARIA

Signature: …………………

# **DEDICATION**

First of all I want to dedicate this whole study to the Almighty God who gave me strength and knowledge for my everyday life Secondly, want to dedicate it to my teacher who taught me this concept. Lastly, I want to dedicate it to my family members for giving me all the support I ever wanted in doing my project.

# 

# **ACKNOWLEDGEMENT**

I would like to thank God for giving good health throughout the entire process of proposal and implementing my project until now that I’ve completed my project

I also want to admire the help, guidance and support of Mr. KORIR my web development lecturer, Mr. FRANCIS KAIRARIA [supervisor]

I also want to thank my parents for giving me financial support and praying for me in ensuring that i had every resource needed to come up with my project and finish it successfully

**Thank you everyone!**

# 

# **ABSTRACT**

The purpose of the project was to create a website menu for restaurant booking and a documentation repository that support the audit documentation processes based on my quality. The system software to be set up extends the range of goods available for the management control and provide an effective facility to use knowledge accumulate in the course of the audit. This system works as a website the user logs in to the website and order any type of drinks that he or she will be interested in even if he’ll not be around the lodge, when he makes order and payments he gets a notification message showing him or her the exact table that they are supposed to glam in and gets his ordered drinks and food ready served in his table. The system extends the range of tools available for management control and provide an effective facility also the work load of the waiters will significantly reduce as they don’t have to be very busy in serving one customer to the other No. They just place the already made order in the specific customers table as he expect it either cold or warm.

The development of this system is based on PHP programming, SDLC and HTML as a programming language while MYSQL serves as the DB of the system. I used HTML language as it is advantageous due to the ease of use

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# **CHAPTER ONE****: INTRODUCTION**

## **Introduction**

This chapter introduces the background of the study which deals with how the system is operating and how it is operating, secondly the problem statement in this it handled how the system will deal with problems, third is the objectives in this section the researcher deals with 3PWSwhy he want to come up with this system, fourth research questions, fifth significance of the project, limitations and finally the scope of the project.

# **Background of the Study**

Technology and internet is what drives us. In this era or generation everything is technologized or technologically advanced as in this life everything is very hard to handle without the help of technology. And thanks for all brows developers for allowing us share resources.[1]

In today’s market restaurant have chosen to satisfy customers in many ways and one of the ways will be preparing tables to the customer who have placed their desired order thorough the restaurant website and after placing their order they are given a notification stating the exact table location that the customer’s order is placed.

Dreamworld chambers will be a restaurant that deals with selling drinks and food to its customers who are physically available in the club only. However there are problems faced by the management first there are drinks displayed in the restaurant menu but sincerely they are not available in the store which means when a customer lacks his product then automatically he or she will leave, secondly the issue of collision between customers and workers due to congestion, thirdly the issue of making long queues is highly viewed in this current system and according to my own investigation this has led to customers leaving the restaurant without being served due to impatience, lastly really that there were a lot of work handled manually. So, I decided to come up with this online ordering system of developing a website that will at least solve half of chambers problems.

Finally this system will highly help the restaurant as the entire process of ordering will be done automatically. Once an order is placed on the site, it will be entered into the data base and then retrieve by the desktop applicant on the restaurant and in case of any canceled order the system will be able to detect whether it has been done successfully.

# **1.2 Problem Statement**

The challenge encountered by the existing system serves as a major limitation to the customers. Customers wait or make queues before they are served by the waiters or before making their orders mostly where their many customers at a go. Online booking and table reservation is very simple and less time is spent and most importantly customers can save their energy and fuel if they get to know that there desired commodity is not available in the restaurant this is going to help increase automation and accuracy. Another problem is that customers don’t have to view ingredients in their drinks ingredients such as sugar level, Alcohol level but through this website customers get to view exact details on this restaurant booking. On table reservation customers used to congest in one table which sometime lead to spread of communicable diseases, and some time fight due to misunderstandings that`s why the researcher has come with this idea of reserving tables to the customers who have ordered their drinks and rooms online though the website.

# **1.3 Objectives**

### 1.3.1. General Objectives.

The aim is to create online restaurant booking system that helps in reducing wastage of time and fuel and this happens when the customer comes to the restaurant and founds that his desired drinks and rooms are not available.

1.3.2. Specific Objection.

i. To improve on service delivery through better application or use of technology in market

ii. To be able to outstand competitions.

iii. To reduce the issue of collision between the customers and the workers and

iv. To enable customers know what type of drink they want and increase accuracy by To enable customers order drinks which are not in the hardcopy menu

# **1.4 Research Questions**

How do deluxe chamber project Improves its service to the customers?

How does it out stand competition?

How does it reduce the issue of collision?

How does is increase accuracy?

# **1.5 Significance of the Project**

The proposed project will be of great importance to dreamworld restaurant

To increase efficiency by shortening the purchasing time and eliminating paper work like receipts through online transaction

To be able to stand out from competitors by automating daily operations which will give service providers the opportunity to increase sales

To reduce time wasting by eliminating long queues

# **1.6 Scope of the Project**

The proposal date is from May to July and the system implementation is from September to December. Its implementation will work for dreamworld restaurant it’s a website application which use PHP program language. The main aim of my project is to reduce the issue of making long queues before. Getting served, minimize manual data entry, minimize collision of customers and waiters and lastly customers will have to view drinks in the menu and the ingredients in order to make correct orders.

# 

# **CHAPTER TWO: LITERATURE REVIEW**

# **2.0 Introduction**

This chapter introduces the literature review of the system and the area of use meaning the history of the system. It also gives review of documentation or papers that guides the user on accomplishing his system or work.

# **2.1 Review of Related Works**

In this paper we propose efficient algorithms for solving constrained online convex optimization problems. [2]Our motivation stems from the observation that most algorithms proposed for online convex optimization require a projection onto the convex set K from which the decisions are made. While the projection is straightforward for simple ordering practice. In this paper, we consider an alternative online convex optimization problem.

Instead of requiring that decisions belong to K for all rounds, we only require that the constraints, which define the order, be satisfied in the long run. By turning the problem into an online convex-concave optimization problem, we propose an efficient algorithm which achieve the main objective. Then, we modify the algorithm in order to guarantee that the constraints are satisfied in the long run. [3]This gain is achieved at the price of getting O (T3/4) regret bound. Our second algorithm is based on the mirror proxy method) to solve inequalities which achieves O (T2/3) bound for both regret and the violation of constraints when the domain K can be described by a finite number of linear constraints. Finally, we extend the results to the setting where we only have partial access to the convex set K and propose a multipoint bandit feedback algorithm with the same bounds in expectation as our first algorithm. This system drinks and table reservation is an ordering system that is via website. A customer order his drinks and rooms via the restaurant site after order has been made then the customer is reserved with a table where he or she will be glamming with his family or friends, This site will be helping the management save issues that are in the previous system secondly his system will improve accuracy as the customers will be having the chance of viewing the exact level of ingredients in the drinks that he or she want to use last but not least drinks ordering and table reservation system will be very flexible in the one cancel hi order it will reflect in the system.

[4]It is well-known that traditional (offline) marketing strategies are already widely used by the companies around the world and there are almost no new options for fostering competition. And here comes online marketing with almost unlimited possibilities and options. This paper focuses on the growing importance of online marketing, including research of the state of the art through analysis of the data provided by numerous surveys. It also contains brief description of the online marketing itself, basic strategies on the internet nowadays and the answer to the question: How it is possible to get new customers while keeping the old ones?

Based on the study, it is possible for applying the online restaurant booking system in India, in India with a population of one billion. [5]According to the dinner have also increased in recent years. For a restaurant which has limited tables it’s difficult to manage the sizable amount of people using queue or crowd among in dinner.

In order to optimize operation, restaurant need specialization on online software to manage the daily customer influx in London restaurant reservation software allow customer to order drinks and table which help manage schedule employees according to customer traffic. And this hasn’t started but it started from the past years and its truly helping as it solve the issue of time wastage.[6]

As a Results it is worth for investing on the system whereby it can shorten the return on investment

In addition,[7] the system should be supported by the drink restaurant availability and service to maintain the customer loyalty and satisfaction. [8]Drizzly is an online ordering and delivery platform that facilitate the order of alcohol from local retailer via its website. As of December thirty first, 2020, the company had approximately 4,000 retail partners.

2.2 **Conclusion**

Online restaurant booking is the most important idea that every restaurant is supposed to use. And I think you’ll agree with me that the value of the system will help increase a lot in this industry of restaurant as it will help increase accuracy and reduce the issue of time wastage, making long queues in then restaurant, collusion and lastly will increase accuracy

# **2.3 Conceptual Framework**

RESTAUTANT BOOKING

Non-dependent variables

Dependent variables

To be able to out stand competitions

Restaurant booking

. To enable customers order drinks and rooms which are not in the hardcopy menu

To reduce the issue of collision between the customers and the workers

Source: author (2024)

# CHAPTER THREE: RESEARCH METHODOLOGY

# 3.0 **Introduction**

[7] This chapter introduces the methodology that will be used in the study. It includes the research design the target population sample size and sampling design data source and collection procedure and data analysis techniques that will be utilized.

# 3.1 **Research Design**

The system will be designed by use of a Data Flow Diagram. A DFD is a graphical representation of the flow of data through an information system, modelling its process aspects. A DFD shows what kinds of information will be input to and output from the system, where the data is coming and where it will go, and where the data was stored. It does not show information about the timing of processes will operate in sequence or in parallel as it is shown on a flow chart.

It is a simple graphical technique which is easy to understand, it helps in defining the boundaries of the system, it is also useful for communicating current system knowledge to the users, it is used as the part of system documentation file and also it explains the logic behind the data flow within the system,

According to among the disadvantages is that, physical considerations are left out, it simply takes long time to create and this is especially true when there is a lot of leveling to be performed, and it does not model time dependent behavior well.

Finally It’s a two-dimensional diagram that explains how data is processed and transferred in a system. The graphical depiction identifies each source of data and how it interacts with other data sources to reach a common output.

# 3.2 **System Methodology**

[3] The methodology that used to develop this system is prototyping. prototyping model is fast and cheap to design. It is suitable to use when the needs of the users are unclear. By using this model, it can ensure that the system requirements are validated and that they are clearly understood. Once the requirements are cleared, the systems will be developed from the beginning. The actual prototype can be discarded when the appropriate knowledge has been required. prototyping can develop a system in a short time compare with other methodologies. [4] When using this methodology, the user can receive the feedback from the end users and keep on working to develop a system that match the requirements of the end user.

# **3.3 Target Population**

The entire lodge majoring with 2 groups the staff, the management

According to the researcher the population of the staff is twenty in the entire organization

The customers in a day goes to a range of 50-100 and all of them are people over the age of 18.

## **3.4 Data Collection Methods**

# Interview

Interview method of collection will be used in this system development. The researcher will communicate with the staff in person so as to gather information or firsthand information on how they are conducting their tasks.

# Observation

This is technique that involve systematically selecting via watching, listening, Reading touching, and recording the behavior. This method is used to collect data through watching how workers are doing their work, how customers are being handled by the management.

# Questionnaire

This is a method of data collection where the researcher gives out questions in a paper so as to get answers from them but in form of question paper.

Them researcher asks questions related to the post of the managements questions like how is the system running how is the management handles its customers, how payments are made, how are the workers paid are they paid on time.

# 3.5 **Data Analysis**

The analysis stage is the final stage in this methodology where the two points of ordering and reserving of table is will be done. The analysis is based on the performance of the system related where the output must be performed well and successful and the second is identifying the conclusion of the project and how it will continue operating.

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# **APPENDIX**

# QUESTIONNAIRE

SECTION A (Personal information)

1. What’s your gender?

FEMALE MALE

1. How old are you?

18-25 26-30 31-40 41-50 51-60

1. What’s your level of Education?

CERTIFICATE DIPLOMA DEGREE

Section B (work related)

1. What’s your post in job?

MANAGER STAFF SUBORDINATE

1. What’s the duration of payment?

HOURLY DAILLY MONTHLY WEEKLY

1. What’s you work duration?

6 HOURS 10 HOURS 24 HOURS ABOVE 24 HOURS

SECTION C (Relationship between workers and the management)

1. How is the management handling the workers?

FAIR UNFAIR

1. What are the challenges faced by the workers?
2. How is the management communication with its workers?

FAIR UNFAIR

# **GANT CHART**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **NO** | **TASK** | **DURATION** | **MARCH** | **APRIL** | **JUNE** | **JULY** |
|  |  |  |  |  |  |  |
| **1** | Topic Formulation | 2 Weeks |  |  |  |  |  |
| **2** | Approval | A Week |  |  |  |  |  |  |
| **3** | Proposal Writing | A Week |  |  |  |  |  |
| **4** | Presentation | A Day |  |  |  |  |  |
| **5** | Analysis | 4 Weeks |  |  |  |  |  |  |
| **6** | Design | 6 Weeks |  |  |  |  |  |
| **7** | Presentation | A Week |  |  |  |  |  |

# **BUDGET**

|  |  |  |
| --- | --- | --- |
| **NO** | **ITEM CATEGORY** | **EXPENDITURE** |
| **1** | **Transport** | **2,500** |
| **2** | **Food** | **1,500** |
| **3** | **Housing** | **9,000** |
| **4** | **Personal expenses** | **3,300** |
| **5** | **Printing** | **250** |
| **6** | **Memory** | **200** |
| **7** | **Hosting Expenses** | **50,000** |
| **6** | **Airtime** | **1000** |
| **7** | **Research** | **500** |
| **8** | **Computers** | **35,000** |
| **9** | Miscellaneous cost | **1000** |
|  | TOTAL | **82734** |