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A case study of Krokrobite Beach Resort : Identifying digital tools Krokrobite Beach Resort needs for their administrative operations, with a visualised proposal solution via a flowchart.

DECLARATION BY STUDENTS

We, the undersigned students, hereby declare that this project work is the result of our independent research carried out under the supervision of Lecturer Prescott. However, all sources of borrowed materials have been duly acknowledged.

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ACKNOWLEDGEMENT

We, the members of this project, wish to express our heartfelt gratitude to the Almighty God for granting us the strength and wisdom to complete this work successfully. Our sincere appreciation goes to our supervisor, Prescott Nyamekye Ofori, for his guidance and encouragement throughout the course of this project.

DEDICATION

This project work is dedicated to our families and loved ones whose unwavering support and prayers have been a source of strength throughout our academic journey.

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CHAPTER ONE

INTRODUCTION

1.1 **Background study**

An event is a precise occurrence that takes place at a specific time and location. Additionally, it is something noteworthy or important that typically occurs during scheduled events or activities. Thus, event planning is the process of organizing a gathering or event, like a convention, trade exhibition, ceremony, party, or team-building exercise. Budgeting, creating schedules, choosing and reserving event locations, obtaining permits, organizing cuisine, arranging transportation, and developing a theme are all part of event planning.

Coordinating every aspect of meetings and conventions, from speakers and locations to the arrangement of printed materials and audio-visual equipment, is known as event planning. The first step is to ascertain the goal the sponsoring organization hopes to accomplish. The program is set up, and the public address and entertainment content are chosen by the organizers to best convey the organization's information. Choosing potential attendees and figuring out how to bring them to the meeting are the organizers' responsibilities. Planning an event is, therefore, a difficult task. Planners have to coordinate the actions of various distinct groups of individuals, multitask, and deal with multiple deadlines.

In order to examine potential locations, meet vendors, and attend meetings, organizers might have to make lengthy trips. Work schedules can be erratic, and it's typical to put in more than 40 hours a week, particularly when an event is coming. Considering the obstacles and confusion that come with organizing an event, we have made the decision to develop a system that significantly lessens these difficulties.

Our research experience led us to the conclusion that most failures are caused by time limits and improper planning, which results from manual planning, rather than a lack of funding.

Every event planner wants their event to be a success. A remarkable occurrence is often admired and discussed. Therefore, one must plan, organize, and oversee the event differently if they want it to be remembered. As previously mentioned, there are a number of stages that an event planner must follow. However, there are certain difficulties that arise, such as financial and time limitations.

The Event Planning Management System (EPMS) eliminates the needless waste of time, energy, and money that could be spent traveling from one location to another in search of appropriate goods and services. The event planner only needs to log in and choose an event that interests them, such as a wedding, funeral, birthday celebration, etc.

The organizer is taken to the pages of stores or vendors that provide the necessary goods or services. After that, he or she will decide what to put in their cart. Ultimately, the planner receives the whole amount after the system automatically determines the cost of the products in the cart.

Additionally, the system allows the organizer to keep an eye on the products or services so that any necessary follow-ups may be made. The planner uses the banking system or a mobile money transfer to pay before the things are delivered. The goal of these transfer mechanisms is security. This will save a lot of resources because the planner won't have to go from store to store comparing pricing for goods or services.

1.2 **PROBLEM STATEMENT**

Problem Statement

Kokrobite Beach Resort, a popular destination in Ghana, faces significant challenges in its digital operations. Despite its reputation as a tourist hotspot, the resort lacks efficient digital systems to manage daily

administrative and customer-related activities. The current methods of handling bookings, payments, customer inquiries, and promotional activities are largely manual or fragmented, leading to inefficiencies such as double bookings, delayed responses to customers, poor record-keeping, and missed marketing opportunities.

Additionally, the resort has limited online visibility and a weak digital presence, which makes it difficult to attract and retain international and local tourists in an increasingly competitive hospitality industry. The absence of an integrated digital platform for reservations, customer engagement, and feedback collection also reduces the quality of customer experience and makes it hard to track guest satisfaction.

These digital gaps not only slow down operations but also limit the resort's ability to compete effectively with other modernized beach resorts and hotels. Without addressing these challenges, Kokrobite Beach Resort risks losing potential customers, revenue, and its competitive edge in the tourism sector.

1.3 **RESEARCH OBJECTIVES**

The objectives of this research are divided into General Objectives and Specific Objectives, each reflecting the broader vision and detailed steps required to achieve the successful design and implementation of the Event Planning and Management System (EPMS). These objectives are designed not only to address the shortcomings in manual event planning but also to propose a reliable, secure, and efficient digital solution

General purposes

The general objectives of the EPMS are to:

1. Help event organizers promote their event centers by uploading materials and making events visible

2. Emphasize a streamlined workflow and centralized communication, essential for scalable event planning and reducing the complexities involved in the process.
3. Track past and ongoing events, thereby providing customers with a historical view of their events. It also offers tools to manage invitations, simplifying the process of guest management. *(Adekunbi H. Bello; Saudi J Eng Technol, Mar, 2024; 9(3): 173-191)*
4. Reduce operational costs and time wastage by automating repetitive tasks, minimizing manual planning errors, and eliminating the need for excessive travel in search of goods and services. This will help organizers focus more on creativity and client satisfaction rather than administrative bottlenecks.

5. Improve customer satisfaction and engagement by integrating features like automated reminders, personalized event recommendations, and instant communication channels. This ensures that clients feel valued, informed, and connected throughout the planning process.

- **Specific purposes**

The Specific objectives of the EPMS are to:

1. Offer a platform for traders and suppliers to advertise their services and for event planners to monitor their orders and communicate with vendors.
2. Integrate databases and web programming to create a comprehensive and functional online system for event management.
3. Incorporate automated notifications and alerts through SMS, email, or in-app messaging. These features will ensure that event organizers, vendors, and clients are consistently updated on timelines, order confirmations, payments, and any changes in event arrangements.
4. Offer multi-language and multi-currency support, thereby accommodating a wide range of users across different regions. This inclusivity broadens the system's usability and promotes

adoption beyond local boundaries.

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CHAPTER 2

RESEARCH METHODOLOGY

INTRODUCTION

2.1 Research Design

This project employs the Waterfall methodology. It is a linear, sequential software development model in which each phase must be fully completed and validated before the next begins. This approach is particularly well-suited to the Event Planning Management System (EPMS) for Kokrobite Beach Resort because the problem domain is clearly defined, the requirements are stable, and the goal is to replace known manual inefficiencies with a structured digital solution.

Unlike iterative models (e.g., Agile), Waterfall ensures comprehensive upfront planning, rigorous documentation, and minimal ambiguity which is critical when digitizing core hospitality operations in a context like Ghana, where digital infrastructure is emerging but operational clarity is essential.

2.2 The Six Phases of the Waterfall Model in relation to Kokrobite's Needs)

Phase 1: Requirements Gathering and Analysis

"What must the system do to solve Kokrobite's problems?"

- This phase directly responds to the root causes outlined in the problem statement by identifying precise digital functionalities needed to replace manual chaos.
- Problem Addressed: Fragmented operations, lack of clarity on user needs, missed opportunities due to poor understanding of guest expectations.
- Conducted in-depth interviews with resort managers, front-desk staff, event coordinators, and past guests to uncover pain points like double bookings and slow response times.
- Distributed digital surveys to local and international tourists to assess desired features (e.g., online booking, mobile payments).
- Observed real-world workflows during peak event days to document inefficiencies in vendor coordination and check-in processes.

Key Requirements Derived:

Functional:

- Real-time room/event availability to eliminate double bookings.
- Integrated online payment gateway (supporting mobile money) to replace cash-based, error-prone transactions.
- Automated email/SMS notifications to reduce response delays.
- Centralized guest profile database to enable personalized service and retention.

Non-Functional:

- Mobile-responsive design to boost online accessibility (addressing weak digital presence).
- Role-based dashboards to streamline staff workflows.
- Deliverable: Software Requirements Specification (SRS) document that maps every requirement to a specific problem from the problem statement.

Phase 2: System Design

“How will the system fix these issues technically?”

This phase translates the identified needs into a cohesive architecture that directly counteracts the resort's operational gaps.Problem Addressed: Lack of integration, poor data organization, no digital interface for customers or vendors.

- Design Decisions Linked to Problems:
- Three-tier web architecture ensures the system is accessible online, improving digital visibility and enabling remote bookings—critical for attracting international tourists.
- A centralized database with tables for Clients, Bookings, Payments, Vendors, and Feedback replaces scattered paper records, enabling accurate reporting and audit trails.
- Module-based design ensures each pain point has a dedicated solution:
- Booking & Payment Module → prevents double bookings and supports secure, instant transactions.
- Communication Module → enables real-time messaging between guests, staff, and vendors, eliminating delayed responses.
- Analytics Dashboard → provides insights into occupancy rates, popular services, and guest satisfaction—addressing the lack of feedback mechanisms.
- UI/UX wireframes prioritize simplicity so even non-technical staff can operate the system—reducing training time and human error.
- Deliverable: System Design Document (SDD) with ER diagrams, module specifications, and mockups all traceable to original problems.

Phase 3: Implementation (Coding and Development)

"Building the digital solution that directly replaces manual chaos"

- This is where the theoretical design becomes a working tool that actively resolves Kokrobite's operational weaknesses.

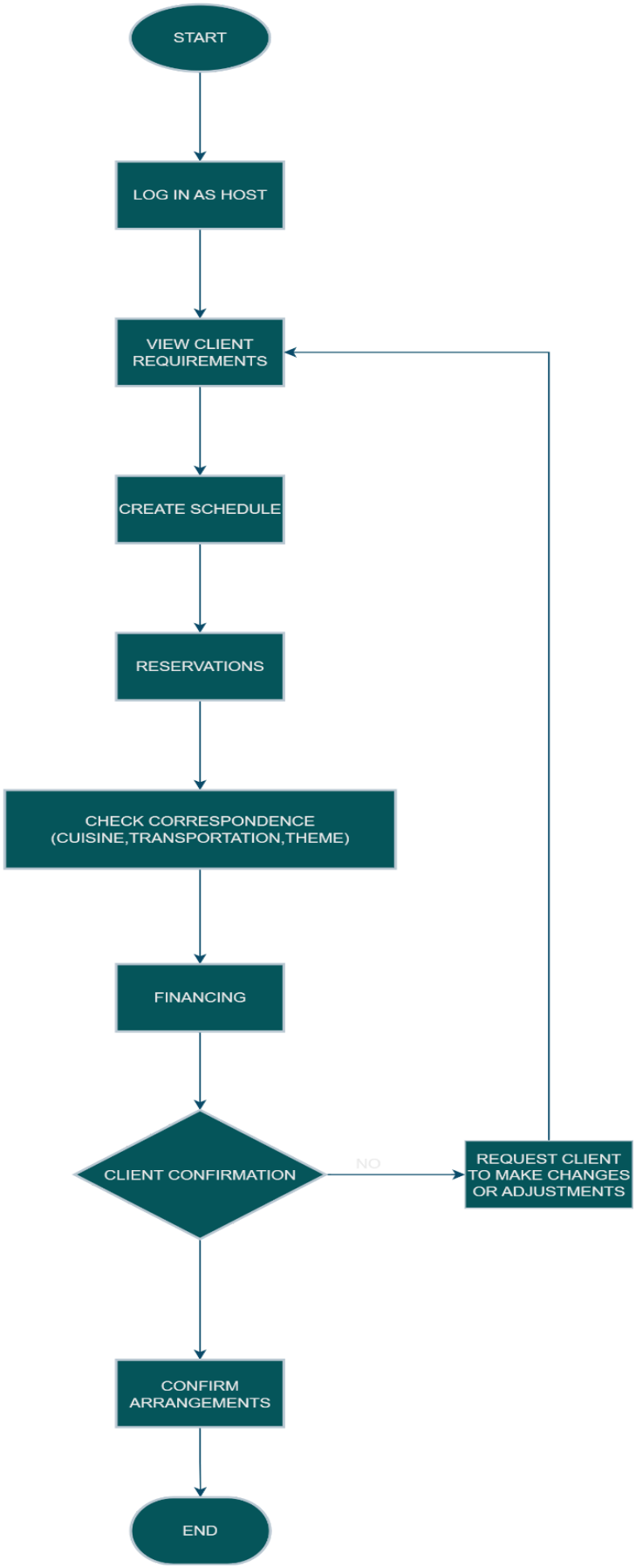
- Problem Addressed: Manual processes, revenue loss, poor customer experience, and data silos.
- Development Practices: Code structured into reusable, testable modules to ensure reliability.
- Security protocols (JWT authentication, bcrypt hashing) protect guest data and address privacy concerns in digital transactions.
- Offline-first considerations: Local caching allows staff to continue operations during brief internet outages (common in coastal Ghana).

Algorithm for Proposed System

Client

- ☐ Start
- ☐ Log in as a client
- ☐ Client search functionality
- ☐ System displays available options
- ☐ Client books the venue for the appointed date
- ☐ Client submits booking requests
- ☐ System checks hall availability
    - ☐ If yes, proceed to payment options
    - ☐ Else end
- ☐ Client selects payment method(deposit, card, mobile, bank transfer)
- ☐ Process payment
- ☐ Booking confirmed, and a receipt has been issued
- ☐ Send confirmation reminders to the client
- ☐ End

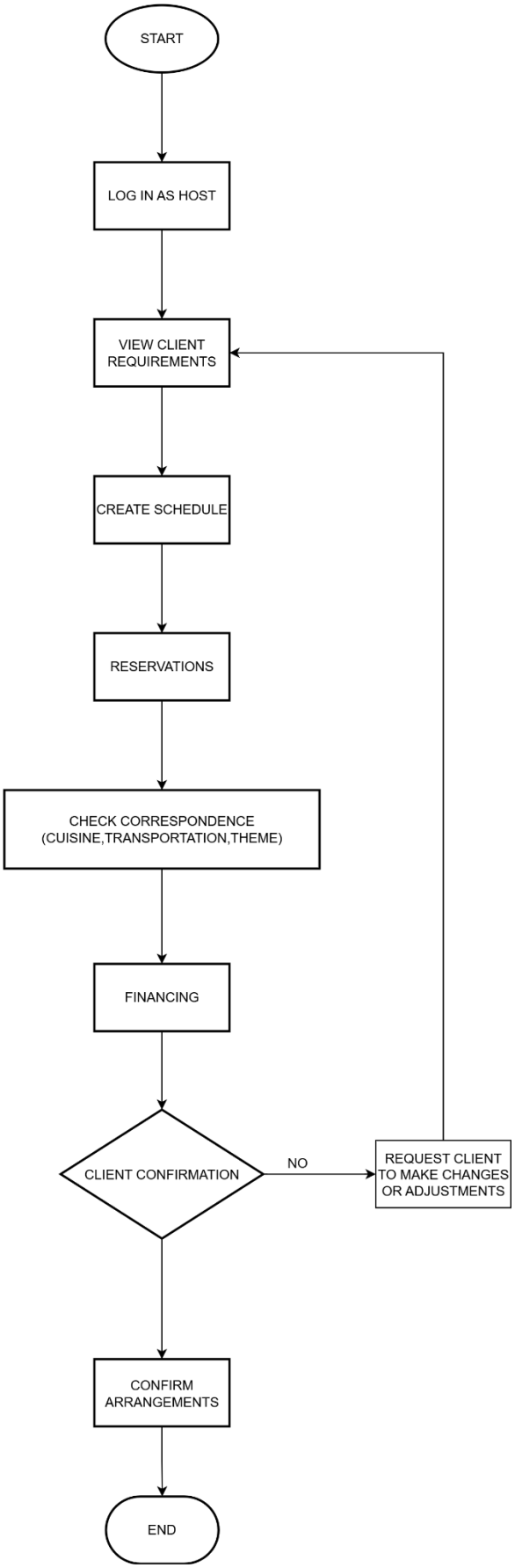
Host


START
LOG IN AS HOST
VIEW CLIENT REQUIREMENTS
CREATE SCHEDULE
RESERVATIONS
CHECK CORRESPONDENCE (CUISINE,TRANSPORTATION,THEME)
FINANCING
CLIENT CONFIRMATION
NO
REQUEST CLIENT TO MAKE CHANGES OR ADJUSTMENTS
CONFIRM ARRANGEMENTS
END

- ☐ Start
- ☐ Log in as the Host
- ☐ View client requirements
- ☐ Create a schedule aligned to the client’s requirements
- ☐ Make reservations
- ☐ Check Correspondence (Cuisine, Transportation, Theme)
- ☐ Calculate costs
- ☐ Client confirmation
    - ☐ If yes, confirm arrangements with clients
    - ☐ Else, request the client to make changes or adjustments
- ☐ End

Venue

- ☐ Start
- ☐ Log in as venue coordinator
- ☐ Update/check on venue profile
- ☐ Check for reservations
- ☐ Confirm the availability of the venue
    - ☐ If yes, charge for booking
    - ☐ Else end
- ☐ Charge for booking
- ☐ Correspond with the host
- ☐ End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Recommendations for Digitising the System

To make event planning more efficient and less stressful, it is essential to transition away from manual processes and adopt digital tools. The following recommendations suggest practical ways of digitising the system:

1. Introduce an Event Management Platform

Instead of keeping scattered records on paper or spreadsheets, a central platform should be used to manage everything from guest lists and bookings to vendor details and schedules. Having everything in one place makes it easier to stay organised and avoid mistakes.

2. Use Online Registration and Ticketing

A digital registration or ticketing system would allow guests to confirm attendance or purchase tickets online. This makes it easier to keep track of the number of participants and reduces the chances of errors that often come with manual guest lists.

3. Send Automatic Notifications and Reminders

To improve communication, the system should be able to send reminders and updates automatically through email or SMS. This would help keep guests, vendors, and staff informed, reducing confusion and last-minute surprises.

4. Provide a Real-Time Monitoring Dashboard

Organisers would benefit from having a dashboard that shows the status of key activities such as catering, equipment setup, or vendor deliveries. Being able to see updates in real-time makes it easier to identify problems quickly and deal with them before they escalate.

5. Track Budgets Digitally

Managing event budgets manually often leads to overspending or forgotten payments. A digital system with a budget tracking feature would make it easier to log expenses, track payments, and generate simple financial reports, keeping the event within budget.

6. Give Event Staff Mobile Access

Event staff should be able to access schedules, task lists, and contact information on their phones or tablets. This makes coordination smoother on the event day since everyone has the information they need without relying on paper notes.

7. Collect Feedback Online

After the event, feedback can be gathered digitally through online forms or QR codes. This not only saves time but also provides valuable information that can be used to make the next event even better

Conclusion

The research presented in this study has shown that digital support systems play a vital role in transforming the administrative services of event centers.

From booking and payment to client interactions and record management, digitalization tackles the inefficiencies that arise from manual methods . By adopting such systems, event planning would be better equipped to provide reliable, fast, and customer-friendly service

Although digital systems offer a great service and help to significantly improve efficiency and satisfaction, others might say adopting technology is not without its issues. Some would argue that online event planning tools may lead to impersonal experiences, but it's important to combine technology with personalized communication to enhance attendee engagement. Successful events should focus on meaningful interactions alongside efficient logistics.

Another concern about alienating less tech-savvy demographics is valid. Event planners should offer alternatives, such as traditional methods and support for those needing assistance, ensuring inclusivity for all attendees.

Lastly, critics may claim that digital systems, while time-saving, overlook valuable personal relationships in event planning. Balancing efficiency with face-to-face interactions or personal calls can help maintain these essential connections and contribute to a successful event.

In conclusion, integrating online tools with personal touches, considering diverse tech comfort levels, and prioritizing relationships are crucial for delivering high-quality events.Ultimately, adopting these digital solutions is not just a convenience but a necessity for event centers seeking to remain competitive and up to date in today's rapidly evolving digital age