# **ASSIGNMENT COVER SHEET**

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ASSESSMENT ITEM NUMBER & TITLE						
Project Report						

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Date 03 November 2024

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# Subject: 31272 Project Management and the Professional Spring 2024

# Project Report

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# **1 Executive Summary**

This document provides a comprehensive plan for The Guest Hospitality System (GHS) project by Tropical Retreats Group (TRG), which consists of 6 major components:

- Business overview: provide background information surrounding the project including objectives, scope and purpose.
- Key project management planning and control strategies: This section introduces
  our strategies and plans as well as rationale towards various project management
  decisions such as stakeholders management, risk and quality management or
  project structure.
- Major project management activities and estimates: Detailed executive tasks to keep track of project progress and measure project success
- Conclusion: Project conclusion
- Slide Pitch: A powerpoint slide consists of 5 to 10 slides promoting our project plan
  to the stakeholders to convince them to invest in it.

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#### 2 Business Overview

The Guest Hospitality System (GHS) project by Tropical Retreats Group (TRG) aligns closely with the company's strategic vision of delivering superior guest experiences and operational excellence. With a focus on enhancing guest satisfaction, the GHS project aims to integrate core resort services into a centralized, digital platform accessible through mobile apps and on-site devices. This system will streamline services such as booking, event registration, and personalized recommendations, allowing guests to interact seamlessly with TRG's offerings.

The primary objectives of the GHS are to improve convenience and personalization for guests while increasing TRG's operational efficiency. Through the implementation of advanced digital tools and data integration, TRG anticipates better resource utilization, increased guest loyalty, and potential revenue growth. By automating routine guest interactions and providing insights into guest preferences, TRG can maintain a competitive edge in the hospitality industry and meet the evolving expectations of modern travelers. The GHS is set to be a crucial component in TRG's goal of creating a scalable, efficient, and guest-centered environment across its resorts.

### 2.1 Project name

#### Guest Hospitality System (GHS) for Tropical Retreats Group (TRG)

This name reflects the project's core focus on enhancing guest experiences and streamlining hospitality services through a centralized digital system, specifically designed to meet the needs of TRG's resort operations.

#### 2.2 Version Control

Version	Date		Description
		by	
0.0T	15/08/2024	lan	Created the template
0.1T	16/08/2024	Helen	Template: Updated format and content
0.2T	16/08/2024	Helen	Template: Updated after discussion
0.3T	17/08/2024	Helen	Template: lan reviewed
0.4T	19/08/2024	Helen	Template: updated after tutor review
1.0	23/10/2024	Alex	Document Creation
2.0	3/11/2024	Alex	Document Completed by every member
3.0	3/11/2024	James	Formatting for submission

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#### 2.3 Document Control

Version	Date	Released by	Released to
1.0	23/10/2023	Alex	Everyone
2.0	3/11/2024	Alex	Everyone
3.0	3/11/2024	James	Alex; Everyone

#### 2.4 Introduction

The Guest Hospitality System (GHS) project by Tropical Retreats Group (TRG) aims to enhance guest experiences through an innovative, digital platform that integrates various resort services into a centralized system. This project is designed to address the growing demand for convenience and personalization in the hospitality industry. Guests will interact with the GHS through both mobile applications and on-site kiosks, which enable them to access services such as booking, event registration, and personalized recommendations. TRG's goal is to streamline guest interactions and optimize service delivery, thereby improving overall satisfaction and operational efficiency.

The GHS project is a strategic initiative that aligns with TRG's objectives of delivering top-tier guest experiences while maintaining operational excellence. By adopting a Waterfall methodology, the project is structured to maintain a strict timeline and budget while meeting quality expectations. The project is organized around critical phases, including system design, development, testing, and phased deployment, ensuring that each component functions seamlessly before broader implementation.

This project will not only enhance guest engagement and satisfaction but also provide TRG with valuable insights into guest preferences, enabling the company to tailor its offerings more effectively. The GHS is set to position TRG as a leader in digital hospitality solutions, enhancing its competitive edge and supporting sustainable growth

# 2.5 Purpose

The purpose of the Guest Hospitality System (GHS) project by Tropical Retreats Group (TRG) is to innovate and streamline the guest experience across TRG's resort locations through a centralized, user-friendly digital platform. This project is driven by the growing need for convenience, personalized services, and efficient operations within the hospitality industry. The GHS system is designed to allow guests seamless access to essential services, including room bookings, event registration, payment processing, and personalized service options, all integrated through a mobile app and on-site kiosks.

The GHS's purpose also includes operational benefits, as it minimizes manual tasks for TRG staff, enabling them to focus on enhancing guest interactions. The system will

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provide TRG with valuable data insights, helping them better understand guest preferences, optimize service delivery, and drive revenue growth. Additionally, the GHS aims to support TRG's strategic goals by enhancing guest satisfaction and establishing TRG as a digitally advanced hospitality provider. Through effective integration of digital solutions, the GHS project seeks to provide a more efficient, enjoyable experience for guests while supporting TRG's long-term growth and industry competitiveness

### 2.6 Background

The Guest Hospitality System (GHS) project aims to modernize and streamline the management of guest services across multiple resorts, enhancing both guest experience and operational efficiency. This initiative focuses on digitizing and integrating various aspects of hospitality services, such as bookings, event management, and guest information. The system will feature a mobile application and internal devices to facilitate guest interactions, catering to the unique needs of the resort environment. With a fixed project timeline, the GHS must be completed by May 2026, aligning with TRG's strategic goals and allowing them to better manage guest expectations, resources, and operations within a cohesive digital platform.

## 2.7 Objectives of the GHS and Key success criteria

The GHS project has several key objectives: enhancing guest experience through efficient service delivery, automating manual processes, ensuring data security, and integrating existing systems to create a unified digital experience. Key success criteria for the project include completing the GHS within a strict budget and timeline, achieving smooth system performance, and maintaining high user adoption rates. Success will also be measured by meeting specific functional requirements, such as reliable booking management, efficient guest registration, and accurate data handling across platforms. Stakeholder alignment throughout the development stages is essential, ensuring that all departments within TRG support and understand the project's goals. A successful GHS will deliver consistent, positive guest interactions, streamline employee workflows, and provide measurable improvements in operational efficiency.

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# 2.8 Short discussion of the project's Measurable Organisational Value (MOV) and potential benefits

The Measurable Organisational Value (MOV) for the GHS project centers on providing quantifiable improvements in guest satisfaction, service efficiency, and operational scalability for TRG. The MOV framework emphasizes metrics such as increased guest satisfaction scores, faster booking processing times, and reduced wait times for services. A high MOV will be demonstrated by the system's ability to scale with TRG's needs, allowing additional resorts or services to integrate seamlessly with minimal additional development. The MOV also reflects cost savings from reduced manual interventions, optimized resource use, and improved data accuracy. By aligning with TRG's strategic priorities, the GHS will support long-term growth and set a foundation for expanded digital offerings. A successful MOV will help TRG maintain its competitive edge and meet the evolving demands of modern hospitality by improving the overall guest experience, enhancing brand loyalty, and maximizing operational returns.

The GHS project offers substantial benefits for both TRG and its guests. For guests, the system ensures a smooth and engaging experience by simplifying booking processes, minimizing waiting times, and providing instant access to services via digital channels. Internally, the GHS reduces the administrative load on staff, improves accuracy in data management, and enhances communication across departments. The project also promises operational benefits, as TRG will have greater flexibility in adapting to peak demand periods, effectively allocating resources, and managing high volumes of guest interactions without compromising service quality. Additionally, the GHS's robust data management will allow TRG to maintain compliance with industry regulations and protect sensitive information, further boosting guest trust. As a result, TRG is expected to achieve higher guest retention, enhanced brand reputation, and better financial performance through increased efficiency and cost savings. The system's scalability means that these benefits can expand with TRG's future growth and acquisitions, supporting long-term success in the competitive hospitality market.

## 2.9 Outline of scope

The scope of the Guest Hospitality System (GHS) project encompasses the design, development, and implementation of a comprehensive digital platform for managing guest services at TRG resorts. This scope includes several core components aimed at enhancing guest experience and operational efficiency. Key deliverables within this scope are the development of a booking and registration system, integration of payment processing, and a digital guest service interface to facilitate seamless interaction between guests and resort services.

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The project will also establish a secure data management infrastructure, ensuring guest information and booking details are protected and compliant with industry standards. System functionalities will include automated booking confirmations, real-time updates, and integration with third-party services like payment gateways and reservation systems. Additionally, the project scope involves creating internal devices across the resort premises to allow guests convenient access to services without needing to rely solely on personal devices.

Non-functional requirements such as system performance, security, and scalability are integral to the project. These will be defined and clarified to ensure that the GHS can handle peak guest volumes and adapt to future resort expansions. Finally, the project scope includes comprehensive user acceptance testing (UAT) to confirm the system meets the functional needs of both guests and resort staff before full deployment

## 2.10 Project assumptions and potential constraints

#### **Project Assumptions**

GHS project include the availability of resources, stakeholder commitment, and technical feasibility within the defined timeline. The project assumes consistent availability of technical staff and prompt approvals from management. Additionally, it presumes that resort locations will accommodate the system's deployment needs, and guest interactions will align with the digital service model proposed by GHS. These assumptions are vital for maintaining project scope and meeting quality standards.

#### **Potential Benefits**

The GHS project offers substantial benefits for both TRG and its guests. For guests, the system ensures a smooth and engaging experience by simplifying booking processes, minimizing waiting times, and providing instant access to services via digital channels. Internally, the GHS reduces the administrative load on staff, improves accuracy in data management, and enhances communication across departments. The project also promises operational benefits, as TRG will have greater flexibility in adapting to peak demand periods, effectively allocating resources, and managing high volumes of guest interactions without compromising service quality. Additionally, the GHS's robust data management will allow TRG to maintain compliance with industry regulations and protect sensitive information, further boosting guest trust. As a result, TRG is expected to achieve higher guest retention, enhanced brand reputation, and better financial performance through increased efficiency and cost savings. The system's scalability means that these benefits can expand with TRG's future growth and acquisitions, supporting long-term success in the competitive hospitality market.

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# 3 Key Project Management Planning and Control Strategies to Adopt

## 3.1 Stakeholder management

Effective stakeholder management is crucial for the success of the Guest Hospitality System (GHS) project, as it ensures consistent alignment with stakeholders' expectations, fosters collaboration, and facilitates risk management. The project involves a range of stakeholders, including the TRG executive team, resort managers, finance and HR departments, as well as third-party vendors and government bodies. The primary objective of the stakeholder management plan is to maintain transparency and engagement by establishing regular communication, addressing stakeholders' evolving needs, and providing structured updates throughout the project lifecycle.

To manage these relationships, a robust communication plan has been designed. Key stakeholders, such as the TRG CEO and Board of Directors, will receive high-level monthly and quarterly reports, ensuring they remain informed on the project's progress. Additionally, resort staff and operational teams will be engaged bi-weekly, with presentations and digital updates to allow for immediate feedback. A regular cadence of communication not only helps address any concerns in real-time but also aids in maintaining project momentum by reinforcing stakeholders' commitment and understanding stakeholder management approach integrating tools to monitor stakeholder feedback and ensure alignment with project milestones, especially during critical phases like feasibility assessments, scope definitions, and prototype testing. By conducting stakeholder workshops and using structured engagement channels, the team can better manage expectations and address potential misalignments proactively.

## 3.2 Communication plan

Stakeholder	Report required	Time Due	Produced by	Delivery format					
	TRG								
TRG CEO	Printed executive	Start of each	PMP Project	Printed & digital					
	summary	month	Director	PDF					
TRG Board of	Printed project report,	Start of each	PMP Project	Printed project					
Directors	printed executive	quarter	Director	report,					
	summary,			printed executive					
	digital slide deck for			summary,					
	presentation			digital slide deck					
				for presentation					
TRG Resort	Digital report; PDF	Bi-weekly on	PMP Operations	Digital PDF					
Managers and Staff	format accompanied	Monday at 9 am	Lead	report shared via					

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Stakeholder	Report required	Time Due	Produced by	Delivery format
	by a live demonstration			email & in person demonstration
TRG Finance Team	Digital financial report in PDF form	Mid-month	PMP Finance Team	Digital PDF format and an Excel-based financial model
TRG Human Resources	Digital change management report	First week of each month	PMP Change Management Specialist and HR Liaison	Digital PDF format shared via email
TRG IT Department	Printed technical report, digital version of report	Bi-weekly on Thursdays at 10 am	PMP IT Lead and Developers	Digital PDF format and physical report
TRG Guest Services Team	Printed service impact summary, digital user guide in PDF format	Monthly, on the 15th	PMP Customer Service Lead	Digital PDF format, interactive digital user guide via email
TRG Marketing Team	Report accompanied by visual aids, PDF format, Promotional material	Start of each quarter	PMP Marketing Specialist & Project Manager	Digital PDF format shared via email
TRG Customer Experience (CX) Team	Digital user experience report, PDF format	Monthly on the 10th	PMP CX Designers & Business Analysts	Digital PDF format shared via email
TRG Environmental Oversight/Sustaina bility Team	Printed sustainability assessment report	End of each quarter	PMP Sustainability Consultant & Project Manager	Digital PDF format shared via email & Printed
TRG Ethics and Compliance Officers	Digital compliance assessment report with a checklist, PDF format	First Monday of each month	PMP Legal and Compliance Team & Project Manager	Digital PDF format shared via email & Printed
		PMP	1	
PMP CEO	Printed executive summary	1st of each month	PMP Project Director	Printed & Digital PDF format shared via email

Stakeholder	Report required	Time Due	Produced by	Delivery format
PMP Project Team	Project status report, PDF format	Weekly on Fridays by 11:59 pm	PMP Project Manager, Project Coordinators	Digital PDF format shared via email
PMP Customer Service and Support Team PMP IT Department	Operational summary Report on user feedback Technical system integration and	Monthly on the 10th  Bi-weekly on Thursdays	PMP Customer Experience (CX) Specialists PMP IT Lead & Developers	Digital PDF format shared via email Printed & Digital PDF format
PMP Finance Team	security report Financial budget report	Monthly, by the 2nd Monday	PMP Financial Analyst & Finance Manager	shared via email Digital PDF format & Financial model in Excel both shared via email
PMP Quality Assurance (QA )Team	QA testing report	Bi-weekly, on Wednesdays	PMP QA Lead & QA Analysts	Digital PDF format shared via email
PMP Account Managers	Client relationship and project status summary report	Bi-weekly on Mondays	PMP Account Manager (Project Team when required)	Digital PDF format shared via email
PMP Change Management Specialists	Change management and training progress report	Monthly, by the 15th	PMP Change Management Lead & Training Staff	Digital PDF format shared via email
	Oth	er Stakeholders		
Risk Management Teams (TRG & PMP)	Risk assessment reports	Monthly	PMP & TRG Risk Management Lead	Digital PDF report shared via email
Hospitality and Tourism Advisory Boards	Quarterly Report	Quarterly	PMP Business Analysts with input from TRG Marketing and CX Teams	Digital PDF report shared via email
Regulatory and Legal Bodies	Compliance reports	Bi-annually	PMP Legal Team & Compliance Specialists	Printed legal reports & Digital PDF versions shared via email

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Stakeholder	Report required	Time Due	Produced by	Delivery format
Security Consultant	Cybersecurity and data protection assessments	Monthly	PMP IT Department and Security Team	Digital PDF report shared via email
Vendors/Suppliers	Procurement reports and contract compliance updates	Start of each month	PMP Procurement Team	Digital PDF report
Third-Party Software Integrators	Integration progress reports	Weekly	PMP IT Department	Digital PDF report shared via email
Local Government and Tourism Authorities	Economic impact assessments and tourism promotion metrics	Quarterly	PMP Project Director & TRG Marketing Team	Digital PDF report shared via email
Data Privacy Officers	Data protection compliance reports	Bi-annually	PMP Legal and Compliance Team	Printed & Digital PDF format shared via email
End Users	Guest feedback summaries, usability reports, and satisfaction ratings	Monthly, on the 1st	PMP Customer Experience (CX) Team and TRG Guest Services	Digital PDF format
Training and Development Team	Staff training progress reports	Bi-monthly	PMP Change Management Specialists	Digital PDF report shared via email
Investors	Financial performance updates and Return on Investment (ROI) reports	Quarterly	PMP Finance Team & PMP CEO	Digital PDF report shared via email
Competitors and Market Analysts	Market position analysis, competitive benchmarking, and product differentiation reports	Annually	PMP Business Analysts & Marketing Team	Digital PDF report
Business Analysts	Project requirement analysis and impact reports	Weekly	PMP Project Team with insights from TRG operational data	Digital PDF report

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# 3.3 Discussion of system development approaches for creating the SDLC

#### Waterfall Approach

The **Waterfall model** is a linear and structured approach where each phase follows sequentially from the previous one. It's ideal for projects where requirements are well understood from the beginning and unlikely to change significantly.

#### Advantages of Waterfall for GHS:

- 1. **Clear Scope and Timeline**: The GHS has a fixed end date (May 2026), and many requirements are already well-defined. The Waterfall approach can help ensure deadlines are met through a structured and predictable process.
- Comprehensive Documentation: TRG needs oversight, and the Waterfall model emphasizes detailed documentation at each stage, allowing TRG to review progress more easily.
- 3. **Risk Management**: Given the strict timeline and quality expectations, Waterfall allows for a detailed upfront risk analysis and the planning of contingencies.

#### **Challenges with Waterfall for GHS:**

1. **Adaptability**: Waterfall is less adaptable to changes. Given the potential for expanding the project to include other resorts, or the possibility of new features being requested later, flexibility might be crucial.

#### **Agile Approach**

The **Agile methodology** focuses on iterative development, where small, usable portions of the system are developed, tested, and adjusted over time. It's excellent for projects with evolving requirements or those needing regular customer feedback.

#### **Advantages of Agile for GHS:**

- 1. **Flexibility and Adaptability**: Agile would allow TRG to adjust features or add new ones as the project progresses (e.g., the acquisition of new resorts).
- 2. **User Feedback and Testing**: Since TRG isn't an expert in information systems, Agile's iterative feedback loops can ensure that the system matches TRG's expectations and is user-friendly for resort staff and guests.
- 3. **Continuous Delivery**: Parts of the system can go live earlier, providing early value, which would be beneficial for training staff or testing specific modules.

#### **Challenges with Agile for GHS:**

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- 1. **Deadlines and Budget**: Agile can make it harder to control scope creep, which may be risky given the strict budget and timeline constraints.
- 2. **TRG's Oversight Expectations**: Agile's reliance on iterative development may conflict with TRG's expectation for clearly defined stages and milestones.

#### **Summary**

After aligning both waterfall and agile approaches' characteristics against our project context, we opted to use waterfall as our main approach because this project is time sensitive and . As described in the project proposal, the GHS must be done by May 2026 at any cost raising potential. This makes the time constraints of the project become more important than budget. Therefore, an agile approach is not suitable for this project because of its potential to extend the length of the project through development loops. Besides, it's unnecessary to use an agile approach since requirements are specified clearly in the project proposal with common functionalities which is not a design challenge for our development team to clarify step by step through development loops as an agile development process.

On the other hand, the waterfall approach provides more management towards risk, scopes and timeline which is more essential in this project which requires massive scale and solid solutions prioritizing practicality than innovation.

#### Integrate into PLC

Choosing a waterfall as our SDLC makes it easier to integrate into our PLC. Through PLC phases: Initiation, Planning, Execution, Monitoring and Controlling, and Closure, we can integrate appropriate parts of the waterfall SDLC into the PLC to create a simultaneous workflow between the project and application development. In the initiation phase, we can conduct Requirements Gathering and Analysis since these are both about high level requirements definition and refining shaping the core of the project. Next is the planning phase, where we can put in System Design which also defines a detailed plan to implement the system. Both project management tasks and system development tasks can be considered and integrated with each other in this phase to achieve higher efficiency and concurrency. Obviously, System Implementation should be placed in the Execution phase constructing the real system. Testing ,QA and QC processes can be put into the Monitoring and Controlling phase which involves quality control and assurance. Finally, Project Closure will include System Deployment and Maintenance which are post-product activities involving documentation and project summary.

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### 3.4 Risk management strategy and initial planning

### 3.4.1 Pre-Solved High-High Risks

The various High-High, i.e., high-probability-high-impact risks that were identified in the proactive mitigation itself during the planning phase have been securely circumvented to avoid disrupting the GHS project. We have identified these critical risks early this way and minimised the potential impact on project success.

- Budget Overrun (R01): While all possible contingencies were expected, nonetheless, a tight system of budget tracking was instituted, besides a contingency fund. Continuous budget review, along with the prioritisation framework, ensures that only key features of the project are within budget.
- **System Security Breach (R05)**: Since data protection is critical, necessary cybersecurity measures such as data encryption, firewalls, and periodic testing for vulnerability are adopted to avoid unauthorised access to sensitive information.
- Scope Creep (R06): A formal change control process has been put into place to block unauthorised project scope increases. All additional functionality or other changes stakeholder approval to retain focus on the project and budgetary control.
- **Project Impediments due to Resource Shortage (R07)**: Pre-acknowledging the possibility, alternative resources have been pre-identified, and additional team members have cross-training to cover key project activities when needed.

The residual risk is what the project team now has to focus on to support the project in its steady progress and alignment with the objectives set by TRG since these High-High risks had been addressed during the planning phase of the project.

## 3.4.2 Risk Management Matrix

Risk ID	Priority Rank	Risk Description	Trigger	Owner	Probabi lity (L / M / H)	Impa ct (L / M / H)	Mitigation Response
R01	1	Exceeding Project Budget	Unplanned expenses or cost increases	Project Manager	Ι	I	Implement strict budget tracking, allocate contingency funds, and prioritise critical features to manage costs.

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R02	1	Project Delays Due to Task Dependencies	Task delays or resourcing issues	Project Manager	M	Н	Build buffer times, monitor dependenci es, and adjust schedules as needed to mitigate delays.
R03	2	Employee Resistance to New System	Concerns over job displacem ent	HR Manager	M	M	Conduct training sessions, hold Q&A sessions, and provide transparent communicat ion to ease concerns.
R04	2	Low User Adoption	Complexit y or Lack of usability	Project Manager	M	M	Offer comprehen sive training, usability testing, and user support to facilitate system adoption.
R05	1	System Security Breach	Cybersecu rity vulnerabilit ies	IT Departm ent	М	Н	Implement security protocols, conduct regular audits, and maintain data

							backups to protect against breaches.
R06	1	Scope Creep	Unapprove d additional features	Project Sponsor	H	Н	Enforce a formal scope change process, requiring stakeholder approval for any additions to project scope.
R07	2	Resource Shortage	Unavailabil ity of key technical resources	Resourc e Manager	М	Н	Identify alternative resources, consider outsourcing if necessary, and cross-train staff for flexibility.
R08	2	Stakeholder Miscommunica tion	Unclear expectatio ns or infrequent updates	Project Manager	M	M	Establish clear communicat ion channels with regular updates to keep stakeholder s aligned and informed.

R09	2	Compliance with New Regulations	Regulatory changes affecting requireme nts	Legal Advisor	L	Н	Conduct routine regulatory reviews and consult with legal experts to ensure compliance with new regulations.
R10	2	Equipment Delivery Delays	Supply chain disruptions	Procure ment Team	M	M	Use multiple suppliers, place orders early, and have contingency plans to avoid project delays.
R11	1	Quality Issues Due to Insufficient Testing	Inadequat e testing leading to undetecte d issues	Quality Manager	M	Н	Implement thorough quality assurance testing, gather early feedback, and address defects promptly.
R12	3	Delays Due to Natural Disaster	Severe weather impacting project locations	Project Manager	L	Н	Prepare disaster recovery plans, ensure data redundancy,

							and establish alternative work locations.
R13	1	Data Breach During Implementation	Security breaches compromis ing data	IT Departm ent	M	Н	Strengthen cybersecurit y measures, conduct regular vulnerability testing, and secure data backups.
R14	3	Customer Service Challenges	Users struggle with new system integration	Custome r Support	Δ	M	Create support resources (e.g., help desk, FAQs) and training materials to assist users with the transition.
R15	2	Key Personnel Loss	Resignatio n of critical team members	HR Manager	М	M	Develop succession plans and cross-train team members to ensure continuity in essential roles.
R16	2	Miscommunica tion within Project Team	Misunderst anding about	Team Leader	М	M	Conduct regular team

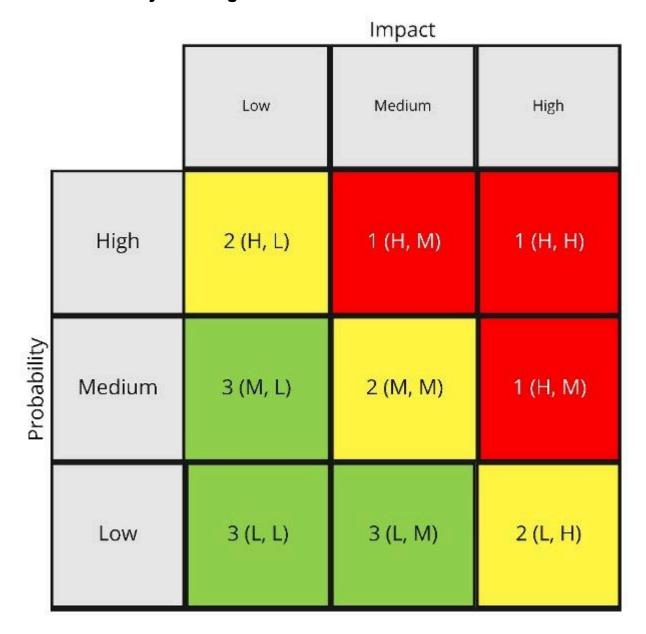
			project deliverable s				meetings, maintain clear documentati on, and set communicat ion protocols.
R17	3	Unanticipated Technical Challenges	Complexit y in integrating new technology	Develop ment Lead	M	M	Conduct feasibility studies, include buffer times, and allocate contingency for potential technical setbacks.
R18	2	Inadequate Training for End Users	Insufficient or delayed training programs	Training Lead	М	M	Develop a comprehen sive training plan, conduct user testing, and adjust training as needed for effective user preparation.
R19	3	Legal Liability Due to System Errors	Potential liability issues arising from system failures	Legal Advisor	L	Н	Ensure compliance and legal reviews, add user disclaimers, and conduct thorough testing to

							mitigate risks.
R20	3	Negative Public Perception	Negative feedback affecting brand image	Marketin g Lead	L	M	Develop a communicat ion strategy and public relations plan to manage and address customer feedback.

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#### 3.4.3 Risk Priority Ranking Matrix



# 3.5 Project progress monitoring, scope management and change control strategy

In managing the Guest Hospitality System (GHS) project, consistent progress monitoring is essential to keep the project on track and aligned with stakeholder expectations. The monitoring process includes key performance indicators (KPIs), Gantt charts, and Activity-on-Node (AON) diagrams to manage and visualize project timelines. These tools provide clear insight into task dependencies and allow the team to identify the critical path—the sequence of essential tasks that directly impact project completion. Monitoring project performance against this critical path helps prevent delays by flagging high-priority

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activities that need extra attention. Weekly status reports, prepared by the project manager, summarize progress, highlight completed tasks, and address any pending issues. These weekly reports are shared with the project team, and monthly summaries are presented to senior stakeholders, including TRG executives, to ensure that high-level oversight remains aligned with strategic goals.

#### **Scope Management**

Scope management for the GHS project is carefully structured to prevent "scope creep"—the tendency for a project's requirements to grow beyond initial specifications. In this project, scope management begins with a clearly defined project charter, which includes approved objectives, deliverables, and exclusions. The charter is developed collaboratively with key stakeholders during the planning phase, ensuring that it reflects the project's primary goals and aligns with TRG's strategic priorities. Once defined, any proposed changes or additions to the project's scope undergo a strict review process. The project manager, in consultation with stakeholders, evaluates the necessity and feasibility of each proposed change, focusing on whether it supports the project's primary objectives without negatively impacting resources, timelines, or costs. Documentation of scope decisions helps maintain transparency, supports consistent communication, and minimizes potential misunderstandings between team members and stakeholders.

#### **Change Control Strategy**

The change control strategy for the GHS project is a formalized, structured approach designed to handle change requests methodically and with minimal disruption. Any team member or stakeholder who identifies a need for change submits a Change Request Form (CRF), which details the nature of the request, its rationale, and potential impacts on project outcomes. Bi-weekly change control meetings are held to review these requests, which are attended by the project manager, key stakeholders, and team leads. During these meetings, each change is evaluated for its potential impact on the project's timeline, budget, resources, and overall objectives. This ensures that only changes that genuinely add value or are necessary for project success are approved. For each approved change, the project schedule, budget, and resource allocations are updated accordingly. Updates to the project plan are communicated across relevant departments, ensuring that every team remains aligned and can adjust their activities as needed.

By adhering to a strict change control protocol, the GHS project team reduces the risk of unplanned disruptions, maintains control over project progress, and ensures that any adaptations are strategically beneficial. This structured approach is essential in a complex, multi-phase project like GHS, as it allows for flexibility when necessary but safeguards the project's overall integrity.

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### 3.6 Quality management strategy and initial planning for same

#### A. Initial Planning

Functional Requirements.

**Internal Devices:** Devices that are placed across the resort for guests to interact with various services while enjoying their time at the resort without bringing their phone everywhere for the mobile application. These devices act as a docked tablet which can connect to the internet and have the resort service application preinstalled.

- 1. Simplified Guess Information Management:
  - Securely store guess information
  - Mobile Application that help guesses register their information
  - Administrator interface to manage the information
  - Logical server to perform data query
  - APIs for other service integration, sharing guess information
  - Database network that ensure data integrity and security

#### 2. Simplified Holiday Booking

- Securely store booking information
- Mobile Application that help guesses book their holiday
- Logical server to perform data query
- APIs for other service integration, sharing booking information
- Database network that ensure data integrity and security
- Third party payment service integration

#### 3. Leisure Event Registration

- An internal devices system that acts as an onsite smart device which supports the interaction with the event registration system.
- Logical server to perform data query
- APIs for other service integration, sharing booking information
- Database network that ensure data integrity and security
- Administrator interface for the staffs to get booking data
- Can notification guess's mobile app for new event
- Integrated on mobile app also

#### 4. Private Lesson

- Logical server to perform data query
- APIs for other service integration, sharing booking information
- Database network that ensure data integrity and security
- Tutor recommending system that can recommend the right tutor for our guess

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- Integrate into mobile application
- Integrate into internal smart devices for internal convenience (don't have to bring the phone everywhere)
- Administrator interface for tutors to register and manage their information

#### 5. Online Shopping

- Logical server to perform data query
- APIs for other service integration, sharing booking information
- Database network that ensure data integrity and security
- Big data system that can analyse user shopping behaviour to predict upcoming trends and supply (Trachim. 2023).
- Integrate into mobile application
- Integrate into internal devices
- Administrator interface to manage items supplement and business analysis
- Third party payment gateway integrated

#### 6. Competition Management

- Competition information store
- Database network that ensure data integrity and security
- Web application for competitor to access to the event easily
- Register functionality for the competitor
- Competition information registration
- Administrator interface to manage competition registration

#### Non-Functional Requirements

#### 1. Availability

- For various service types, there should be tolerance which allow a certain delay time until the customers receive their first response:
  - + For internal online service: 5 seconds of waiting time is expected in this service with a maximum 30 seconds of waiting time, especially for internal online systems where internal devices communicate with each other.
  - + For external online services (booking): we should keep the threshold within 2 minutes for customers who are from Australia.

#### 2. Processing time.

- Similar to the availability attribute, we should specify practical thresholds in order to deliver our service best:
  - + Connection between server and database is expected to be between 10 to 20 ms with the hard threshold of 50 ms for faster query time.

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- + Average web server response time is between 100 to 200 ms with the hard threshold of 400 ms in busy hours.
- + API responses are expected to be within around 100 ms and no further than 300 ms.

#### 3. Accuracy and Integrity of Data

- Data must be stored in high accuracy. For modern connect and database, the accuracy of data is not considered a great threat toward our business. On the other hand, data backup is a true significant factor.
  - + 3 replicas of databases should be placed across Australia.

#### 4. Security.

- Security is also an important factor for this project.
  - + Authentication and authorization: We should use email and password pairs for authentication for more convenience and also satisfy moderate security purposes.
  - Network security: Implement ISO/IEC 27001 (Information Security Management), PCI DSS (Payment Card Industry Data Security Standard), NIST Cybersecurity Framework (NIST CSF), ISO/IEC 29115 to enforce our network security.

#### 5. Faulty Tolerance:

- Backup server instances are a good solution for system faulty tolerance. Always
  ensure that only 80% of traffic capacity is in use, for server instance replacement if
  there are any malfunction in server processing.
- Preparing a scaling plan for our system can also balance out the system availability and fault tolerance for if 80% of traffic capacity threshold is surpassed, the scaling system should provide 10% more server instances of the original amount of instances.

#### 6. Maintainability

- Prepare updating and maintenance plans that can smoothly transform between versions with zero downtime. There are several solutions for this. However, we opted for a common solution which is rolling updates. Mentioned in "Performing a Rolling Update" by Kubernetes in 2024, rolling updates replace part of the current server with new version ones gradually to test out new functionalities first, then completely replace the system with the new version. This allows maintenance without affecting the user's current experience making the system always available.

#### 7. Usability

- Consider the usability of all customers including the various disability types, weakening senses such as short sightedness, astigmatism, hyperopia, etc ...,

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hearing problems. Standards need to be specified in the early phase to ensure customer's well being and comfort. W3C introduced a set of standards in 2016, which considers most aspects of usability and is used widely in the software development industry. Therefore, we opted to utilize these standards in our own context, acting as a base set of rules to satisfy user usability requirements. More detailed standards can be specified later to better fit into the context of our system.

#### **B. Quality Management Strategy**

#### 1. Quality Planning

#### Methodology

To make sure our requirements match the stakeholders expectations, we hold regular meetings among stakeholders and some development team representatives to gather stakeholders' requirements mapping it into development requirements. Furthermore, we also use some metrics to decide whether the project progress is successful and meets stakeholder expectations.

#### **Metrics**

For functional requirements, we will create checklists for each application and perform regular checks onto that checklist to see whether these requirements are met or not. These checklists can be extended into child requirements to track the progress easier which can specify each requirement in more details.

For non-functional requirements, we specify thresholds to evaluate system performance by comparing monitoring values to predefined standards. These thresholds are determined using common system performance metrics, set slightly above the average to align with the project's quality standards. Monitoring values, in contrast, represent practical system metrics derived from real-time data synthesis.

Stakeholders satisfaction is measured by surveys which consist of rating between zero to ten points for each requirement during the development process. If the average rating of a particular part is lower than 7, we will hold a meeting to determine the conflicts between stakeholders and development teams and make consideration to change development requirements.

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# 2. Metrics for Quality Assurance

Project Process	Expected Quality	Quality Assurance Activities	Frequency	Person Responsible
Requirements collection, definition and documentation	Good communication between stakeholders and development teams	Send emails to stakeholders asking their satisfaction toward the project	every month	Project Manager
	Detailed and comprehensive requirement documentations	Regular check on requirement documents	every week	Project Manager
	Development requirements match stakeholders' needs	Double check on stakeholders' needs whether they are satisfied or not	every week	Development Teams
System Implementatio n	Functional requirements met	Make requirements checklists base on development phase and check it after each phase	Every week	Development Team Leaders
	Project is on track with stakeholders' expectations.	Weekly stakeholders satisfaction survey	Every week	Project Manager
	System run flawlessly	Make tests based on development requirements	Every time a new feature complete	Development Teams

		and make sure all tests are passed.		
	User interfaces meet designing and marketing requirements	Acquice designing and marketing consultant to ensure UI design quality	Before and after UI implementation	UI Designers and Marketing Consultant
	Project follows W3C usability standards.	Check against standard lists to ensure standards are followed	once a month	Development Teams
Project closure	Ensure healthy deployment environment	Monitoring system on production environment to ensure that there are no issues in production.	After finishing quality tests	Development Teams
	System satisfy user expectation	Hold a meeting for different group of volunteers to use our system and give feedback	After finishing quality tests	Project Manager
	Detailed project documentation and clean up	Go through all of the project implementation to clean up codes and documents.	After finishing quality tests	Development Teams

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# 3. Quality Control

Project Deliverable	Expected Quality	Quality Assurance Activities	Frequency	Person Responsible
Requirements specification documents	Detailed non functional documents specifying quality standards	Make check lists regarding non functional requirements	every month	Project Manager
	Acquire data ready for synthesizing and analyzing.	Use monitoring tools to gather real time data of the system	Everyday after product finish	Development Team
	Financial department, HR specifications for Administrator softwares.	Hold meetings between departments to come up with a clear specification list	Every month	Financial department, HR, Executives
System Performance	System satisfies test against non functional requirements	Create tests based on non functional requirement checklists and make sure they are all passed	Once the product is finished	Development Team
	Ensure Usability	Hold meetings with multiple groups of users to gather feedback on system usability especially from the disabilities.	Every month after product is finished	Project Manager

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	Ensure maintainability	Check the ability to update components modularly	Everytime a component is done.	Development Team
	Ensure Fault tolerance	Simulate different types of system failures to check fault tolerance	Every new update	Development Team
	Cost minimized	Create a list of factors that can increase the operational cost of a system and mitigate it.	Every month	Development Team
Code base improvement	Code optimized	Go through code base and optimize it at function level	Every month	Development Team
	Ensure modularity and reusability	Check against coding best practices and pattern to find more suitable structure	Every month	Development Team

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## 4 Major Project Management Activities and Estimates

#### 4.1 Task list

As our SDLC is Waterfall, which is well integrated into the PLC with 5 phases: Initiation, Planning, Execution, Monitoring and Controlling, and Closure mentioned in 3.3 Discussion of system development approaches for creating the SDLC. Each phase has a corresponding Waterfall SDLC step. Therefore, we also divide our task list into 5 phases, which is similar to the PLC to enhance the efficiency and compatibility of it with the management process. The purpose for 5 different phases compared to the PLC is that we want to distinguish it from the PLC since this task list focuses more on product development while the PLC also includes out of scope items of this project. Each partition acts as a checklist to reflect the success and completion of each phase in the project. This helps us keep track of the progress better with a more comprehensive perspective on the entire project.

#### Keys:

- Milestones are highlighted with yellow stars
- Title of each phase is in red
- Estimated duration is in day
- Estimated effort = duration x amount of worker
- Task ID is in format: Phase-XXX. For example, if a task is in Define Project Goal phase it will have an ID like DPG-XXX

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Task ID	Task description	Task outcome	Precedin g task IDs	Following task IDs	Estima ted Effort (in days)	Estim ated Durati on (in days)	Resources required	Cost	Explanation
				Define l	Project G	oals			
DPG - 001	Identify project objectives for the Guest Hospitality System (GHS)	Clear objectives for improving guest experience	N/A	DPG-002	8	4	1 Senior Project Manager, 1 Business Analyst	5068	Two staff members (e.g., project manager and business analyst) using project management tools and meeting rooms over three days to set clear objectives.
DPG - 001.1	Conduct market research	Market analysis to align objectives with demand	N/A	DPG-002	9	3	2 Senior Financial Analyst, 1 Intermediate Data Analyst, 1 Market Research Analyst	6090	Three team members (market analyst and data analyst) conducted surveys, gathering data, and using analysis tools over three days.
DPG - 002	Conduct stakeholder analysis	Comprehensiv e understanding of stakeholder needs	DPG-001, DPG-001. 1	DPG-002. 1 DPG-003, DPG-004	8	4	1 Stakeholder Engagement Lead, 1 Junior Analyst	2916	Two team members working on stakeholder engagement through tools and interviews over four days to gather insights.

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Task ID	Task description	Task outcome	Precedin g task IDs	Following task IDs	Estima ted Effort (in days)	Estim ated Durati on (in days)	Resources required	Cost	Explanation
DPG - 002.1 <del>*</del>	Identify key stakeholders and roles	Clear definition of key stakeholders and their responsibilities	DPG-002	DPG-003	O	3	1 Senior Project Manager, 1 Intermediate Stakeholder Manager, 1 Senior Project manager as Team Leader	6582	Three resources (e.g., project lead, stakeholder manager, and team lead) spending two days defining roles through communication platforms.
DPG - 003  ★	Perform feasibility study on GHS implementatio n	Ensure project viability and resource allocation	DPG-002, DPG-002. 1	DPG-003. 1, DPG-004	10	5	1 Senior Project Manager, 1 Finance Analyst Member	7480	Two members from finance and project management will take five days to ensure the project is viable using financial and project management tools.
DPG - 003.1	Conduct financial feasibility analysis	Accurate estimate of financial viability of the project	DPG-003	DPG-005	12	4	1 Senior and 2 Junior Financial Analyst	8512	Finance team members using financial analysis software to assess costs and benefits over three days.

Task ID	Task description	Task outcome	Precedin g task IDs	Following task IDs	Estima ted Effort (in days)	Estim ated Durati on (in days)	Resources required	Cost	Explanation
DPG - 004 ★	Define scope of GHS system	Clearly defined scope and exclusions for the GHS	DPG-002, DPG-003	DPG-004. 1, DPG-005	10	5	1 Senior Project Manager, 1 Technical Analyst	6510	Two team members defining scope and exclusions using collaboration tools over four days.
DPG - 004.1	Clarify non-functional requirements	Non-functional requirements (e.g., performance, security) are well defined	DPG-004	DPG-006	8	4	1 Senior Developer, 1 Intermediate Security Specialist	4400	Technical staff and analysts defining non-functional requirements like security and performance using assessment tools.
DPG - 005	Review existing legacy systems and services	Understanding of systems to plan integration	DPG-003. 1, DPG-004	DPG-006	18	6	3 Intermediate developer	10080	Three developers spent four days reviewing legacy systems using system analysis software.
DPG - 006	Define success criteria for the project	Clear criteria for measuring project success	DPG-004. 1, DPG-005	DPG-007	8	4	2 Senior Project Manager	6736	Two staff members defining success criteria based on KPIs and historical data over three days.

Task ID	Task	Task outcome	Precedin	Following	Estima	Estim	Resources	Cost	Explanation
	description		g task IDs	task IDs	ted	ated	required		
					Effort	Durati			
					(in	on (in			
DD0 007	O a sa alconatoria la		DDC 000	DDC 007	days)	days)	0	5004	To a winds on about a various winds
DPG - 007	Conduct risk	Identification of	DPG-006	DPG-007.	8	4	2	5264	Two risk analysts using risk
	assessment	potential risks		1,			Intermediate		management tools over four days
	for early	and mitigation		DPG-023			Risk		to identify potential risks.
DDO	project stages	044	DDC 007	DDC 000	0	0	Manager	4500	Thurs & A
DPG -	Define risk	Strategies to	DPG-007	DPG-008	9	3	1 Senior	1598	Three team members collaborated
007.1 🌟	mitigation	mitigate					Risk		for two days to define risk
	strategies	identified risks					Manager, 2		mitigation strategies using
							Intermediate		management frameworks.
DD0 000	0 "		DD0 007	DD0 000			Analysts	00.40	
DPG - 008	Outline	Clear channels	DPG-007.	DPG-008.	4	2	2	2040	Two team members using
	communicatio	for	1	1,			Intermediate		communication tools to draft a
	n plan for	communication		DPG-009			Project		stakeholder communication plan
770	stakeholders	<u> </u>	550.000	550.000		•	manager	2222	over two days.
DPG -	Develop	Standard	DPG-008	DPG-009	6	3	2	3060	Two resources spending three
008.1	stakeholder	templates for					Intermediate		days developing communication
	communicatio	efficient					Project		templates for stakeholders.
	n templates	stakeholder					manager		
		communication							
DPG - 009	Develop	Preliminary	DPG-008,	DPG-010	8	4	2	4080	Two project managers
	project	timeline with	DPG-008.				Intermediate		collaborated using MS Project to
	timeline and	key deadlines	1				Project		create the timeline over four days.
	milestones						Managers		

Task ID	Task description	Task outcome	Precedin g task IDs	Following task IDs	Estima ted Effort (in days)	Estim ated Durati on (in days)	Resources required	Cost	Explanation
DPG - 010	Draft initial project charter	Formal project charter document	DPG-009	DPG-011	6	თ	2 Senior Project Managers	5052	Two project managers drafting the formal project charter using collaboration tools and software over three days, ensuring all aspects of the project are clearly defined.
DPG - 011	Define project governance structure	Governance and decision-makin g framework	DPG-010	DPG-012	6	3	1 Senior Project Manager, 1 Intermediate Project Managers	2372	Two resources (project manager and team lead) defining governance frameworks over three days to ensure the project has a clear decision-making hierarchy.
DPG - 012	Obtain approvals from key stakeholders	Formal approval to initiate the project	DPG-011	DPG013	4	2	1 Intermediate Project Manager, 1 Intermediate Stakeholder Manager	2040	Two resources (stakeholder manager and project manager) collaborating over two days to obtain formal approval using communication tools.
DPG - 013	Conduct stakeholder workshops	Gather input and align stakeholder expectations	DPG-012	DPG-014	8	4	1 Senior Project Manager, 1 Intermediate	5408	Two resources conducting workshops over four days using both online and physical tools to

Task ID	Task description	Task outcome	Precedin g task IDs	Following task IDs	Estima ted Effort (in days)	Estim ated Durati on (in days)	Resources required	Cost	Explanation
							Stakeholder		ensure all stakeholder
							Manager		expectations are aligned.
DPG - 014	Outline project budget and resource estimates	Initial budget and resource plan for project	DPG-013	DPG-015	10	5	1 Intermediate Finance Analyst, 1 Intermediate Project Manager	5820	Two resources (project manager and finance team) working together for five days using financial analysis tools to develop a comprehensive project budget.
DPG - 015 ★	Finalise system architecture requirements	High-level system architecture defined	DPG-014	DPG-016	12	6	2 Senior Developers	10200	Two technical resources finalizing system architecture requirements using design software over six days to ensure a robust architecture for GHS.
DPG - 016	Define high-level system functionality for the GHS	Outline of key system functionalities	DPG-015	DPG-017	10	5	2 Intermediate Developers	5600	Two developers worked over five days to define high-level functionality for GHS, ensuring the system meets business requirements.
DPG - 017	Establish reporting structures for	Defined reporting framework for stakeholders	DPG-016	DPG-018	8	4	1 Intermediate Reporting Analyst, 1	3600	Two resources using reporting software over four days to establish clear and consistent

Task ID	Task description	Task outcome	Precedin g task IDs	Following task IDs	Estima ted Effort (in days)	Estim ated Durati on (in days)	Resources required	Cost	Explanation
	project progress						Intermediate Project Manager		reporting structures for tracking project progress.
DPG - 018  ★	Conduct initial design sprints for key modules	Prototypes for guest registration and activity booking	DPG-017	DPG-019	18	6	1 Senior UI/UX Designer, 2 Intermediate Developers	9480	Three resources (UI/UX designers and developers) using design sprint tools like Figma over six days to create prototypes for guest registration and booking systems.
DPG - 019 ★	Develop a prototype for integrated booking and payment system	Early-stage prototype for booking and payments	DPG-018	DPG-020	24	8	3 Intermediate Developers	13440	Three developers created an integrated booking and payment prototype over eight days, utilizing AWS and other testing environments to ensure QA Engineer Functionality.
DPG - 020	Define testing plan and quality assurance criteria	Plan for system testing, quality assurance, and bug tracking	DPG-019	DPG-021	10	5	2 Intermediate QA Engineers	3880	Two QA engineers working over five days to define a comprehensive testing plan and QA criteria using specialized frameworks and tools.

Task ID	Task description	Task outcome	Precedin g task IDs	Following task IDs	Estima ted Effort (in days)	Estim ated Durati on (in days)	Resources required	Cost	Explanation
DPG - 021	Develop 	Comprehensiv	DPG-020	DPG-022	8	4	2	3104	Two QA staff collaborating for four
*	quality	e QA plan and					Intermediate		days to develop a robust quality
	assurance	testing criteria					QA 		assurance framework that ensures
DD0 000	framework	11. (6. 16.	DDC 004	DD0 005	40	0	Engineers	0700	the system is thoroughly tested.
DPG - 022	Perform initial	Identify and fix	DPG-021	DPG-025	18	6	2	9720	Three resources (developers and
*	system testing	initial system					Intermediate		QA Engineers) working over six
		bugs					Developers, 1 Senior QA		days to identify and resolve any
							,		system bugs, ensuring a smooth
DPG - 023	Risk	Camprahanair	DPG-007	DPG-024	6	3	Engineers	3900	testing process.
DPG - 023	Identification	Comprehensiv e identification	DPG-007	DPG-024	0	3	2 Senior	3900	Two risk analysts identifying
	luentilication	of risks							potential risks over three days
		OFFISKS					Risk Analyst		using risk management tools and workshops to ensure all risks are
									covered.
DPG - 024	Risk	Risks are	DPG-023	DPG-025	6	3	2	3900	Two resources prioritizing risks
DI 0 - 024	prioritisation	prioritised	DI 0-023	Di 0-025	0	3	Intermediate	3300	over three days using risk
	prioritisation	based on					Risk		assessment frameworks to
		impact and					Analysts		determine the likelihood and
		likelihood					Anaryoto		impact of each risk.
DPG - 025	Risk response	Response	DPG-022,	DPG-026	8	4	2 Senior	5600	Two team members developing
	planning	plans are	DPG-024				Risk		risk response plans over four
		developed for					Managers		days, using management tools
		prioritised risks							

Task ID	Task description	Task outcome	Precedin g task IDs	Following task IDs	Estima ted Effort (in days)	Estim ated Durati on (in days)	Resources required	Cost	Explanation
									and templates to ensure all risks are accounted for.
DPG - 026	User acceptance testing (UAT)	Testing conducted to ensure system meets users requirements	DPG-025	DPG-027	21	7	2 QA Intermediate Testers, 1 User Representati ve	6132	Three resources (QA staff and user representatives) conducting user acceptance testing over seven days to validate that the system meets user requirements.
DPG - 027	Post-implemen tation review	Review of system performance and project success after launch	DPG-026	PP-001	8	4	1 Intermediate Project Manager, 1 Intermediate Analyst	3756	Two team members conducted a post-implementation review over four days, using review frameworks to gather feedback and analyze performance.
				Pla	n Project				
PP-001	Requirement Gathering and Analysis	Detailed Requirements Specification document created, ensuring all	DPG-027	PP-002	8	4	2 Business Analysts	3400	2 business analysts communication with the stakeholders to gather requirements

Task ID	Task description	Task outcome	Precedin g task IDs	Following task IDs	Estima ted Effort (in days)	Estim ated Durati on (in days)	Resources required	Cost	Explanation
		stakeholders understand the project scope and features.							
PP-002	System Design	System Design Document completed, including architecture, workflows, and UI prototypes, ensuring scalability and integration.	PP-001	PP-003	18	6	1 Senior Developer as Lead, 2 Intermediat e Developers	11820	System design is essential as it's the system architecture acting as a core of the project. Therefore, senior level is required with the help of 2 intermediate level
PP-003	Implementatio n Planning	Project Plan created with detailed milestones and team assignments	PP-002	PP-004	8	4	1 Project Manager, 1 Business Analyst	3740	Project manager provide clear governance strategy with a business analyst to align it with business goal

Task ID	Task description	Task outcome	Precedin g task IDs	Following task IDs	Estima ted Effort (in days)	Estim ated Durati on (in days)	Resources required	Cost	Explanation
		for development and deployment.							
PP-004	System Development	Individual components of GHS coded and tested, turning the design into a working system.	PP-003	PP-005	55	11	1 Senior Developer, 2 Intermediat e Developers , 2 Junior Developers	28710	Converting a design into working code involves transforming visual concepts into functional software through programming.
PP-005	Integration and Testing	Fully integrated GHS system tested for performance, handling peak loads, and resolving bugs.	PP-004	PP-006	18	6	2 QA Engineers, 1 Senior Developer	9756	Ensuring system functionality involves verifying that all components work seamlessly together, delivering a cohesive and efficient performance. 2 QA engineers work with a senior developer to establish clear

Task ID	Task description	Task outcome	Precedin g task IDs	Following task IDs	Estima ted Effort (in days)	Estim ated Durati on (in days)	Resources required	Cost	Explanation
									agreement between requirements and development process
PP-006 <del>*</del>	Deployment and Go-Live	The GHS system is live across all resorts, with staff trained and the system fully operational.	PP-005	PP-007	12	4	1 Intermediat e Developer, 2 Project Managers	6320	Putting a system into production involves deploying the finalized software for real-world use, ensuring it operates as intended.
PP-007	Post-Launch Support and Maintenance	Support system in place for ongoing maintenance and continuous updates.	PP-006	PP-008	9	3	1 Senior IT support, 2 IT supports	2832	Keeps the system running smoothly. Senior level is need to ensure clear instructions for maintenance
PP-008	User Training Development	Training program completed, ensuring staff proficiency in	PP-006	PP-009	12	4	1 Senior Developer, 2	7880	Ensuring staff proficiency involves providing training, resources, and ongoing support to develop their skills and expertise effectively.

Task ID	Task description	Task outcome	Precedin g task IDs	Following task IDs	Estima ted Effort (in days)	Estim ated Durati on (in days)	Resources required	Cost	Explanation
		using the system.					Intermediat e Developers		
PP-009	Pilot Testing at One Resort	Successful pilot test at one resort, resolving issues before full deployment.	PP-008	PP-010	16	4	1 QA Engineer, 1 Business Analyst, 2 Testers	6396	Validates the system with real users. 1 QA Engineer and 2 testers are needed to make tests against business requirements which is suggested by 1 business analyst
PP-010	Issue Resolution from Pilot	Refined GHS system with improvements from pilot feedback.	PP-009	PP-011	14	4	2 Junior Developers , 1 Intermediat e Developer	4800	Refining the system further involves analyzing performance, gathering user feedback, and implementing enhancements to improve functionality and user experience.

Task ID	Task description	Task outcome	Precedin g task IDs	Following task IDs	Estima ted Effort (in days)	Estim ated Durati on (in days)	Resources required	Cost	Explanation
PP-011 <del>*</del>	Full System Deployment Across All Resorts	Full deployment of the GHS system at all resort locations, fully operational.	PP-010	PP-012	22	7	1 Project Manager, 2 Senior Developer	15470	When the system goes live everywhere, it is fully deployed across all intended environments, making it accessible to all users and stakeholders simultaneously.
PP-012	Performance Monitoring and Stress Testing	Performance reports generated, system handles peak usage without degradation.	PP-011	PP-013	10	5	2 QA Engineers	3880	Ensures system can handle peak usage
PP-013	Post-Deploym ent User Acceptance Testing (UAT)	UAT sign-off from stakeholders, confirming the system meets expectations.	PP-012	PP-014	16	4	1 Project Manager, 1 Business Analyst, 2 Stakeholde r Managers	7820	Confirming the system meets expectations involves thorough testing and validation to ensure it aligns with defined requirements and user needs.

Task ID	Task description	Task outcome	Precedin g task IDs	Following task IDs	Estima ted Effort (in days)	Estim ated Durati on (in days)	Resources required	Cost	Explanation
PP-014	Data Security and Compliance Review	Data security audit passed, ensuring compliance with regulations.	PP-013	PP-015	80	4	1 Security Specialist, 1 Project Manger, 1 Complianc e Manager	3040	Ensures compliance with data regulations
PP-015	Disaster Recovery Plan Implementatio n	Disaster recovery plan in place, ensuring system recovery in case of failure.	PP-014	PP-016	10	5	1 Senior Developer, 1 Intermediat e Developer	7050	Preparing for emergencies involves developing plans, training staff, and implementing safety measures to effectively respond to unforeseen situations.

Task ID	Task description	Task outcome	Precedin g task IDs	Following task IDs	Estima ted Effort (in days)	Estim ated Durati on (in days)	Resources required	Cost	Explanation
PP-016	Mobile App Integration and Rollout	Mobile app launched, integrated with GHS, enhancing guest experience.	PP-015	PP-017	21	7	1 Senior Developer, 1 Intermediat e, 1 Junior Developer	12110	Adds functionality to the guest experience
PP-017	System Scalability Planning	Scalability plan ensures GHS can handle future growth and new resorts.	PP-016	PP-018	8	4	1 Senior Developer, 1 Business Analyst	5100	Ensuring future growth potential involves creating scalable systems, strategies, and processes that can adapt and expand in response to evolving market demands and opportunities.
PP-018	Final System Testing and Debugging	System passes final tests, declared ready for full operation.	PP-017	PP-019	8	4	2 QA Engineers	3104	Ensures system stability

Task ID	Task description	Task outcome	Precedin g task IDs	Following task IDs	Estima ted Effort (in days)	Estim ated Durati on (in days)	Resources required	Cost	Explanation
PP-019	Documentatio n and Handover	Complete system documentation and handover to TRG's IT department.	PP-018	PP-020	6	3	1 Documenta tion Officer, 1 Project Manager	2481	Finalizing project handover involves completing all deliverables, transferring responsibilities, and ensuring a smooth transition to the client or operational team.
PP-020	Staff Training	Trained Staff ready to use GHS	PP-019	PP-004	3	1	1 Training Specialist 2 Intermediate Developers	1788	Ensure TRG staff are proficient in using the new system
				Execute	Project	Plan			
EPP-001	Evaluate project goals	Understand project's goals for sprint planning	PP-019	EPP-002	14	2	A group of 5 developer team leaders, who	10261	Team leaders need to acknowledge the project goals so they can initiate the project. 2 business analysts are needed to

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Task ID	Task description	Task outcome	Precedin g task IDs	Following task IDs	Estima ted Effort (in days)	Estim ated Durati on (in days)	Resources required	Cost	Explanation
							are at senior level, and 2 business analyst employee		deliver full project requirements to the team leaders.
EPP-002	Hold weekly sprint meeting	Discuss on project ideas	EPP-001	EPP-003	25	1	5 teams of 5 intermediate level minimum developers, including the leaders	14000	For a sprint meeting, we only need ideas to brainstorm our project which doesn't require much expertise, therefore, can be done by intermediate level developers.  Besides, brainstorming can be more efficient among several groups where they can exchange ideas.
EPP-003	Define user stories	Create user stories for each use case	EPP-002	EPP-004 EPP-005	9	3	2 intermediate level developers and 1 beginner level developer	4320	Defining user stories is generally a fundamental task, which can be done by even beginner level developers under the observation of some intermediate levels. This can reduce the cost by using lower level labour as well as providing basic training for new developers.

Task ID	Task description	Task outcome	Precedin g task IDs	Following task IDs	Estima ted Effort (in days)	Estim ated Durati on (in days)	Resources required	Cost	Explanation
EPP-004	Specify priority for each user story	Rank user stories from most to least important	EPP-003	EPP-006	8	2	4 intermediate level developers	4480	Classifying task priorities require some experience in the industry to arrange the task efficiently. 4 intermediate level developers is required to achieve the task faster (can be done by 2 but slower - 4 days)
EPP-005	Break down user stories into tasks	Got tasks to assign to team members	EPP-003	EPP-006	20	4	2 senior level developers with at least 1 team leader and 3 intermediate level developers	13520	Breaking user stories into tasks requires comprehensive system perspective and experience of experts to arrange the tasks smoothly making sure time is used efficiently. 3 intermediate level developers are needed to help the 2 seniors to arrange all the tasks.
EPP-006	Estimate time for each tasks	Know how much effort need to do the tasks to rearrange priority	EPP-004 EPP-005	EPP-007 EPP-008	10	2	5 intermediate level developers	5600	Estimating time for tasks can be done with general experience from intermediate level developers who have already done the job before.

Task ID	Task description	Task outcome	Precedin g task IDs	Following task IDs	Estima ted Effort (in days)	Estim ated Durati on (in days)	Resources required	Cost	Explanation
EPP-007	Build database schema	Build basic database schema for NoSQL database	EPP-006	EPP-009	20	4	2 beginner level and 3 intermediate level	6400	Building a database schema is a basic task after defining the structure of the system, therefore, we can utilize beginner level developers to build it under observation of 3 intermediate because we need to ensure that the schema is done at high accuracy.
EPP-008	System Architecture Construction	Construct the overall system architecture	EPP-006	EPP-009	32	4	3 senior level developers, 4 intermediate level and the attendance of CTO level	23080	System architecture requires expertise as well as resource provision and management. Experience from 3 senior level developers can enhance the reliability of the system and the 4 intermediate level developers can help at managing the resources. We also need an executive level such as CTO to make executive decisions on resource allocation and general architecture.

Task ID	Task description	Task outcome	Precedin g task IDs	Following task IDs	Estima ted Effort (in days)	Estim ated Durati on (in days)	Resources required	Cost	Explanation
EPP-009	Assign tasks to development teams	Tasks assigned	EPP-008 EPP-007	EPP-010 EPP-025 EPP-026 EPP-027	8	2	4 intermediate developers	4480	After processing tasks on higher levels, assigning tasks to teams is easier since
EPP-010	Track progress	Track progress to meet time constraint	EPP-009	EPP-011	4	2	2 project manager	3368	2 project manager to manage the progress of the project
EPP-025	Create API documents	Create API documents for UI and Server team to work simultaneously	EPP-009	EPP-028	16	4	4 intermediate level developers and 2 beginner level	11520	API documentation is a basic task but consists of a huge amount of work that also requires accuracy. 4 intermediate level developers can speed up the process and complete it in 4 days with the help from 2 beginner level developers at general tasks such as reformatting or CRUD operation specification.
EPP-026	Implement Server Services	Implement server logics	EPP-009	EPP-032	220	22	2 teams of 4 intermediate with 1 senior level leaders of each team	135960	Implementing the server logics which are the core of the system requires the accuracy and experience from intermediate minimum level to implement a well structured, efficient system. With

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Task ID	Task description	Task outcome	Precedin g task IDs	Following task IDs	Estima ted Effort (in days)	Estim ated Durati on (in days)	Resources required	Cost	Explanation
									the observation of 2 senior level leaders, 8 intermediate level developers can complete the server logics within 22 days. More resources can be allocated to speed up the process.
EPP-032	Create endpoints	Create endpoint for connection	EPP-026	EPP-028	50	10	4 beginner level developers	12800	Creating endpoints based on the API documentation is a basic job that requires no experience. We can utilize a beginner level work force to reduce the cost as well as provide training for new employees.
EPP-027	Implement user	Create user interfaces	EPP-009	EPP-030	165	11	3 teams of 4 intermediate with 1 senior level leaders for each team	101970	For a system that operates within a resort, the complexity of the design in the beauty manner can contribute to our service values, therefore, quality work forces should be invested to create the most clean, modern and efficient user interfaces. Because there are multiple UIs including mobile applications, internal system UI

Task ID	Task description	Task outcome	Precedin g task IDs	Following task IDs	Estima ted Effort (in days)	Estim ated Durati on (in days)	Resources required	Cost	Explanation
									and so on, we need 3 teams of 4 intermediate level developers and 1 senior team leader to ensure the project progress.
EPP-030	Components Design	Separate the interface into components	EPP-027	EPP-031	35	7	3 intermediate level developers and 2 beginner level developers	16240	Splitting the UI into components can be done with general experience of intermediate level.  Although, there are a lot of components which require 3 intermediate level developers to complete it on time. Besides, documentation can be a huge workload that can be dealt with using help from 2 other beginner developers.
EPP-031	Connect UI to the Server	Get actual data from server	EPP-030 EPP-032	EPP-028	10	5	2 intermediate level developers	5600	Connecting UI to server involves configuration on both sides which requires experience to ensure best practices but can be done with small effort.
EPP-028	Implement authentications	Authentication methods	EPP-025 EPP-031 EPP-032	EPP-029	24	6	4 intermediate	13440	Authentication is an essential component of the system affecting system security. Therefore, 4

Task ID	Task description	Task outcome	Precedin g task IDs	Following task IDs	Estima ted Effort (in days)	Estim ated Durati on (in days)	Resources required	Cost	Explanation
		should be applied					level developers		intermediate level developers are needed to implement complex enough and safe authentication methods. Despite its complexity, it's still a small part in the system, so 4 developers should be enough.
EPP-029	Apply security methods	API fraud should be remove and local network should be safe	EPP-028	EPP-011 EPP-012	28	7	4 intermediate level developers	15680	Same as authentication methods, other security methods are essential but still a small component in the system requiring less effort.
EPP-011	Review System Performance	Check system performance to meet requirements	EPP-029 EPP-010	EPP-013	4	2	2 intermediate level developers	2240	Performance review can be done automatically using tools. The only requirement is the experience of intermediate level to summarize and analyse the data.
EPP-012	Discuss improvement	Discuss on improvement based on performance check	EPP-029	EPP-013	12	2	4 senior level leaders and 2 intermediate level developers	9040	System improvement should be done by a group of developers to provide various perspectives. High expertise is required to come up innovations as well as practical opinion from intermediate level

Task ID	Task description	Task outcome	Precedin g task IDs	Following task IDs	Estima ted Effort (in days)	Estim ated Durati on (in days)	Resources required	Cost	Explanation
									developers who participate in most
									of the implementation process
EPP-013	Demonstrate	Show	EPP-012	EPP-014	4	2	2	2240	Demonstration of the system can
	completed	completed	EPP-011	EPP-015			intermediate		be done with only 2 developers
	features	features to					level		going through system features.
555.044	0 "	stakeholders	555.040	555.040			developers	0=00	
EPP-014	Gather feedback	Gather feedback from stakeholders	EPP-013	EPP-016	8	4	2 beginner level developers	2560	Gathering feedback is a basic task but time consuming because we need to wait for the response from
									stakeholders. Therefore, 2 people should get the job done.
EPP-015	Evaluate Feedback	Evaluate for additional features	EPP-013	EPP-033	12	3	3 senior level developers and 1 executive level such as CTO	9510	Evaluating feedback is essential but requires less effort since it is expected to be minor issues, not core structure related. Therefore, we need involvement only at the senior level. Executive level is required to give final approval of the system and future improvement.
EPP-033	Turn additional requirement into features	Get a practical feature for the system	EPP-015	EPP-016	20	5	4 intermediate	11200	Adding features into the system requires less effort than constructing it. Therefore, 4

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Task ID	Task description	Task outcome	Precedin g task IDs	Following task IDs	Estima ted Effort (in days)	Estim ated Durati on (in days)	Resources required	Cost	Explanation
							level developers		intermediate level developers can fix these minor issues based on the summary from senior and executive level.
EPP-016	Adapt the system	Adapt the system to meet new requirement	EPP-014 EPP-033	EPP-017 EPP-018	12	4	1 senior level developer and 2 intermediate level developers	7880	Adapting the system requires expertise to twist it without affecting the system. Knowing about the comprehensive structure can help restructure the system easier. Besides, these are minor improvements that can be done with a small group of 3 people.
EPP-017	Testing	All system requirement should be satisfied	EPP-016	EPP-020	4	2	1 intermediate level developer and 1 beginner level	1760	Testing can be done automatically by tools. However, test cases and test reports need to be handled by humans. Therefore, 1 intermediate level developer can write down the test case and another can deal with the report which is at basic level.
EPP-018	Plan deployment strategy	Have clear plan on how to deploy	EPP-016	EPP-019	8	2	3 senior level developers	6340	Resource allocating needs expertise to be done efficiently. Executive decisions are also

Task ID	Task description	Task outcome	Precedin g task IDs	Following task IDs	Estima ted Effort (in days)	Estim ated Durati on (in days)	Resources required	Cost	Explanation
							and 1 executive level such as CTO		needed to provision and manage existing and available resources.
EPP-019	Prepare infrastructure for deployment	Infrastructure should be ready for deployment	EPP-017 EPP-018	EPP-020	12	3	4 intermediate developers	6720	After deciding deployment strategy, preparing it shouldn't be a problem. However, we still need 4 intermediate developers to deal with practical setup where different approaches or features can be introduced that may replace existing ones.
EPP-020	System Deploy	System deployed	EPP-019 EPP-017	EPP-021 EPP-022 EPP-023	4	2	2 intermediate level developers	2240	After setting up everything, deployment can be done automatically by tools. However, the human workforce is required to make reports and monitor deployment status over a 2 days period of time.
EPP-021	Monitoring and Analysing	Get insight data of system in production environment	EPP-020	EPP-024	6	3	2 intermediate level developers	3360	Performance reports can be generated automatically by tools. However, manual analysing is still required to deliver insight into the

Task ID	Task description	Task outcome	Precedin g task IDs	Following task IDs	Estima ted Effort (in days)	Estim ated Durati on (in days)	Resources required	Cost	Explanation
									system. Therefore, 2 employees are assigned to make the report in 3 days.
EPP-022	Refactor code base	Refactor code base for future development on existing code.	EPP-020	EPP-024	24	4	4 intermediate level developers and 2 beginner level	11520	Despite being a basic task which involves cleaning codes and refactoring it, in the whole project scale, it may generate a huge workload. 6 developers are assigned to get this task done in 4 days. We can utilize beginner level developers to provide training as well as reduce cost.
EPP-023	Prepare document for codebase	Make sure the code base is well documented for future development.	EPP-020	EPP-024	12	2	4 intermediate level developers and 2 beginner level	5760	Despite being a basic task which involves documenting the codes, in the whole project scale, it may generate a huge workload. 6 developers are assigned to get this task done in 2 days. We can utilize beginner level developers to provide training as well as reduce cost.

Task ID	Task description	Task outcome	Precedin g task IDs	Following task IDs	Estima ted Effort (in days)	Estim ated Durati on (in days)	Resources required	Cost	Explanation
EPP-024	Review team collaboration	Improve the collaborating efficiency	EPP-021 EPP-022 EPP-023	CP-001	15	1	All teams including 3 teams of 4 intermediate level developers and 1 senior in each team.	9270	This should be a quick meeting among teams to exchange reviews about the collaboration process which requires the attendance of all teams who participate in the project.
				Clos	se Projec	t			
CP-001 🜟	Verify completion	All project objectives are met and system is up to standards	EEP-024	CP-002	12	2	1 senior developer, 4 intermediate level developers, 1 project manager	7200	The senior developer makes sure that all technical aspects are completed.  The mid level developers assist in verifying all technical components handled by the senior developer.  The project manager evaluates the project against the objective, scope items and standards.

Task ID	Task description	Task outcome	Precedin g task IDs	Following task IDs	Estima ted Effort (in days)	Estim ated Durati on (in days)	Resources required	Cost	Explanation
CP-002	Measure against in-scope and out of scope items	To check if scope items have been achieved, missed or partially completed	CP-001	CP-002A, CP-003, CP-004	4	2	1 business analyst, 1 junior developer	1490	The business analyst makes sure that all items that were agreed on, were addressed.  The junior developer will assist in ensuring any technical components.
CP-002A	Review change requests and approvals	Assess all change requests during the project and ensure they were properly documented and approved before measuring scope.	CP-002	CP-003, CP-004	4	2	1 business analyst, 1 project manager	1870	The business analyst makes sure that all items that were agreed on, were addressed; managing scope changes.  The project manager ensures that the approval processes are followed.
CP-003	Identify successes and failures	Key successes and failures have been identified for	CP-002, CP-002A	CP-003A	2	2	1 project manager	1020	The project manager will determine the project's life cycle and can assess the long term performance.

Task ID	Task description	Task outcome	Precedin g task IDs	Following task IDs	Estima ted Effort (in days)	Estim ated Durati on (in days)	Resources required	Cost	Explanation
		future development							
CP-003A	Cross-referenc e project KPIs with stakeholder feedback	Incorporate feedback from stakeholders to measure against original expectations	CP-003	CP-005	6	3	1 business analyst	1275	The business analyst will evaluate all KPIs and make sure that they align with the stakeholder's feedback.
CP-004	Evaluate key performance indicators (KPIs)	To assess project successfulness	CP-002, CP-002A	CP-005	4	2	1 business analyst, 1 project manager	1870	The project manager oversees the project's success.  The business analyst provides analysis on these KPIs.
CP-005	Identify areas for improvement	Areas to improve on for future projects	CP-003A, CP-004	CP-005A	2	2	1 project manager	1020	The project manager oversees the project's and identifies areas for improvement.
CP-005A	Conduct team debriefings to gather improvement insights	Gather input from team members and stakeholders	CP-005	CP-006	4	2	1 project manager, 1 Senior developer as lead	2720	The project manager oversees and leads the debriefings.  The lead developer offers technical expertise.

Task ID	Task description	Task outcome	Precedin g task IDs	Following task IDs	Estima ted Effort (in days)	Estim ated Durati on (in days)	Resources required	Cost	Explanation
CP-006	Document lessons learned	Comprehensiv e report on project learnings	CP-005A	CP-007, CP-007A	6	2	1 technical writer, 2 professional editors	2426	The technical write ensures that all lessons learned are documented clearly.  The professional editors ensure that the document is written error and bias free.
CP-007	Budget Analysis	Identify areas of overspending/ underspending	CP-006	CP-008, CP-011	2	2	1 financial analyst	1308	The financial analyst will provide a full budget analyst to determine the overall financial performance.
CP-007A	Conduct cost-performa nce index (CPI) and schedule-perfo rmance index (SPI) analysis	Evaluate financial and schedule performance	CP-006	CP-008, CP-011	3	3	1 financial analyst	1962	The financial analyst will measure the project's financial efficiency and timeliness; CPI and SPI analysis.
CP-008	Stakeholder approval	Stakeholders approve the project's closure and the transition	CP-007, CP-007A	CP-008A, CP-009	14	7	1 project manager, 1 project sub manger	7140	The project manager will ensure that stakeholder issues and concerns are addressed, documented and approved.

Task ID	Task description	Task outcome	Precedin g task IDs	Following task IDs	Estima ted Effort (in days)	Estim ated Durati on (in days)	Resources required	Cost	Explanation
									The project sub manager helps lessen the workload of the project manager.
CP-008A	Pre-approval stakeholder satisfaction review	Discuss with stakeholders prior to formal sign-off to ensure any concerns are addressed before final approval	CP-008	CP-010	4	4	1 business analyst	1700	The business analyst ensures that stakeholder's expectations are met and align with the project's scope.
CP-009	Customer approval	Receive approval from customers	CP-008	CP-009A, CP-010, CP-014	4	4	1 project manager	2040	The project manager will make sure that customer satisfaction is reached.
CP-009A	Align customer sign-off with satisfaction feedback loop	Ensure customer approval is not just procedural but tied to feedback from the customer	CP-009	CP-010	4	4	1 business analyst,	1700	The business analyst will ensure that the customer satisfaction is not only a formal approval and will cross check.

Task ID	Task description	Task outcome	Precedin g task IDs	Following task IDs	Estima ted Effort (in days)	Estim ated Durati on (in days)	Resources required	Cost	Explanation
		on the quality of deliverables							
CP-010	Implement any last minute changes	Finalise the overall project before obtaining sign-off	CP-008A, CP-009, CP-009A	CP-010A	12	4	1 senior developer, 2 intermediate developers	7880	The senior developer will ensure that final changes are implemented timely.  The mid level developers assist the senior developer ensuring timeliness.
CP-010A	Assess impact of last-minute changes on schedule and budget	Ensure any late changes do not introduce significant deviations or risks to the closure process	CP-010	CP-011	4	2	1 financial analyst, 1 project manager	2328	The financial analyst checks any budget changes.  The project manager ensures that the project's schedule is unaffected by changes.
CP-011	Obtain sign-off	Gather major stakeholder and owner sign off for project	CP-007, CP-010A	CP-011A	2	2	1 project manager	1020	The project manager will manage the formalised sign off / closure process of the project.

Task ID	Task description	Task outcome	Precedin g task IDs	Following task IDs	Estima ted Effort (in days)	Estim ated Durati on (in days)	Resources required	Cost	Explanation
CP-011A	Align sign-off with contractual obligations	Ensure that the project closure process complies with contractual obligations and agreements	CP-011	CP-012, CP-013	2	2	1 legal advisor	864	The legal advisor ensures compliance with all legal and contractual obligations.
CP-012	Share knowledge	Lessons learned shared amongst stakeholders and team members	CP-011A	CP-012A	9	ര	1 technical writer, 2 professional editors, 1 project manager	5169	The technical writer ensures that the shared knowledge document is clearly written; coving all aspects.  The professional editors ensure that the document is written error and bias free.  The project manager will ensure that no points are missed.
CP-012A	Create a comprehensiv e knowledge-sh aring document	Compile all relevant information into a document	CP-012	CP-014	6	2	1 technical writer, 2 professional editors	2426	The technical writer ensures that once CP-012 is completed, CP-012A can start.

Task ID	Task description	Task outcome	Precedin g task IDs	Following task IDs	Estima ted Effort (in days)	Estim ated Durati on (in days)	Resources required	Cost	Explanation  The professional editors ensure
									that the document is written error and bias free.
CP-013	Transition responsibilities	Ownership of project and maintenances transferred to appropriate team/departme nt; outsourcing is applicable	CP-011A	CP-013A	266	14	1 project manager 3 project sub managers, 6 project members including 1 business analyst, 2 financial analyst, 2 technical analyst and 1 risk manager	74914	The project manager will oversee the transition of responsibilities.  The project sub managers will help delegate these roles.  The project members will assist the project sub managers to ensure that CP-013 will be completed timely.
CP-013A	Establish a transition plan	Ensure that ownership and maintenance of deliverables are	CP-013	CP-014	8	2	1 project manager 3 project sub managers	4080	The project manager will ensure that the transfer and closure process is seamless.

Task ID	Task description	Task outcome	Precedin g task IDs	Following task IDs	Estima ted Effort (in days)	Estim ated Durati on (in days)	Resources required	Cost	Explanation
		transitioned to the appropriate teams post-project.							The project sub managers will assist the project manager in this process.
CP-014	Provide post-project support	Train and familiarise employees with new system	CP-009, CP-012A, CP-013A	CP-015	6	2	3 training specialist	4008	The training specialists will ensure that all team members are prepared to run and upkeep the new system.
CP-015 🚖	Release project resources	Equipment, software and personnel have been released or reassigned	CP-014	CP-015A	4	2	1 project manager, 1 Senior developer as lead	2720	The project manager will release resources and also ensure the reassignment of resources.  The lead developer does the same thing but for his team and anything technical.
CP-015A	Ensure no overlapping resource needs for post-project activities	Check if any resources are needed for ongoing maintenance	CP-015	CP-016	2	2	CEO	1796	The CEO reviews the post project resources to avoid any overlap

Task ID	Task description	Task outcome	Precedin g task IDs	Following task IDs	Estima ted Effort (in days)	Estim ated Durati on (in days)	Resources required	Cost	Explanation
CP-016	Archive Material	Archive relevant documents and findings for future referencing	CP-015A	CP-016A	2	2	1 technical writer	1086	The technical writer ensures that all documentation is properly archived .
CP-016A	Ensure secure access to archived materials	Ensure that all archived documents are stored securely and can be accessed	CP-016	CP-017	6	2	1 IT Senior security specialist, 2 IT intermediate security specialist	2000	The lead specialist will ensure that the access to the material is secure.  The mid level specialist will assist in this process.
CP-017	Risk review during project closure	Conduct a risk review to ensure there are no issues from the project before full closure	CP-016A	CP-018	6	2	3 risk managers	3948	There are 3 risk managers to quickly identify any risks during the closure phase of the project; helps to compare and contrast the risks found between all 3 managers.
CP-018	Cross-function al alignment	Ensure that all relevant departments	CP-017	CP-019	3	3	1 project manager	1530	The project manager will ensure that all departed are properly aligned before final sign off.

Task ID	Task description	Task outcome	Precedin g task IDs	Following task IDs	Estima ted Effort (in days)	Estim ated Durati on (in days)	Resources required	Cost	Explanation
		are aligned before final							
		sign-off							
CP-019	Communicatio n plan for post-project updates	Establish a clear communication plan for all	CP-018	EP-001	9	3	1 Senior Project Manager, 2	5586	The lead specialist will ensure that stakeholders are kept up to date after the closure of the project.
		stakeholders post-project					Intermediate Project Manager		The mid level specialist will assist the lead specialist in their role.
				Evalu	ıate Proje	ct			
EP-001	Conduct Post-Project Review Meeting	Key stakeholders and team members provide feedback	CP-015	EP-002	6	3	1 Senior Project Manager, 1 CEO	10,440	The project manager oversees the meeting and ensures all relevant details are covered, while the CEO provides executive insights and approvals.
EP-002	Collect Feedback from Project Stakeholders	Gather qualitative and quantitative data on	EP-001	EP-003	8	4	1 Senior Project Manager	6,736	The project manager manages the process, and stakeholders provide the essential feedback for project evaluation.

Task ID	Task description	Task outcome	Precedin g task IDs	Following task IDs	Estima ted Effort (in days)	Estim ated Durati on (in days)	Resources required	Cost	Explanation
		stakeholder satisfaction and project impact.							
EP-003	Analyse Project Performance Metrics	Detailed analysis report comparing actual performance against planned metrics	EP-002	EP-004	8	4	1 Senior Project Manager, 1 Analyst	10,128	Analysts process performance data, while the project manager ensures that the evaluation aligns with project goals.
EP-004	Evaluate Project Deliverables Against Objectives	Verification report that deliverables meet or exceed defined project goals and quality standards.	EP-003	EP-005	6	3	1 Senior Project Manager, 1 QA team member	9,138	The project manager leads the evaluation, while the QA team ensures that deliverables meet quality standards.
EP-005	Conduct Lessons	Documented lessons learned,	EP-004	EP-006	4	2	1 Facilitator, 1 Project Lead	5,416	The facilitator runs the workshop, and team members share their

Task ID	Task description	Task outcome	Precedin g task IDs	Following task IDs	Estima ted Effort (in days)	Estim ated Durati on (in days)	Resources required	Cost	Explanation
	Learned Workshop	including successes, challenges, and areas for improvement.							insights and experiences for future improvement
EP-006	Assess Team Performance and Contributions	Performance evaluation report highlighting individual and team contributions.	EP-005	EP-007	6	3	1 HR, 1 Team manager	5,292	HR manages performance data, while the team manager provides individual and team evaluations.
EP-007	Review Risk Management Effectiveness	Evaluation of how well risks were identified, managed, and mitigated throughout the project.	EP-006	N/A	8	4	1 Risk manager, 1 Project Lead	11,832	The risk manager reviews the effectiveness of mitigation strategies, and the team lead ensures accurate reporting.
EP-008	Evaluate Stakeholder Engagement and	Assessment report on the effectiveness of	EP-006	EP-009	4	2	1 Communicat ions	4,696	The communications manager reviews engagement strategies, and HR ensures feedback mechanisms are in place.

Task ID	Task description	Task outcome	Precedin g task IDs	Following task IDs	Estima ted Effort (in days)	Estim ated Durati on (in days)	Resources required	Cost	Explanation
	Communicatio n	communication strategies and stakeholder engagement.					manager, 1 HR Advisor		
EP-009	Analyse Cost Management and Budget Variance	Financial analysis report detailing budget adherence, cost overruns, and savings.	EP-006	N/A	8	4	1 Financial analyst, 1 Senior Project Manager:	11,952	The financial analyst evaluates cost metrics, while the manager ensures alignment with the project budget.
EP-010	Review Quality Management Processes	Evaluation of the effectiveness of quality assurance and control processes.	EP-008	EP-011	8	3	1 QA team member, 1 Senior Manager	12,176	The QA team ensures that quality processes are followed, and the manager oversees compliance with quality standards.
EP-011	Compile Project Documentatio n and Reports	Complete set of finalised project documents,	EP-010	EP-012	6	3	1 Project manager, 1 Documentati on Officer	6,954	The project manager oversees documentation, and the documentation officer ensures all

Task ID	Task description	Task outcome	Precedin g task IDs	Following task IDs	Estima ted Effort (in days)	Estim ated Durati on (in days)	Resources required	Cost	Explanation
		including reports, meeting minutes, and contracts.							reports are completed and formatted correctly.
EP-012	Conduct Customer Satisfaction Survey	Summary report of customer feedback and satisfaction levels.	EP-011	EP-013	6	4	1 Survey Technician, 1 QA team member	6,234	The survey specialists manage the survey process, and the QA team verifies that feedback mechanisms function properly.
EP-013	Identify Best Practices and Innovations	List of best practices and innovative solutions that emerged during the project.	EP-012	EP-014	8	2	1 Project manager, 1 Survey Technician	9,584	The project manager facilitates the discussion of best practices, and the survey technician gather innovative feedback.
EP-014	Develop Project Closeout Report	Comprehensiv e report summarising project performance,	EP-013	EP-015	8	4	1 Project manager, 1 Analyst	10,128	The project manager leads the final report preparation, and the analysts gather data and insights for project closure.

Task ID	Task description	Task outcome	Precedin g task IDs	Following task IDs	Estima ted Effort (in days)	Estim ated Durati on (in days)	Resources required	Cost	Explanation
		outcomes, and recommendati ons.							
EP-015	Finalise and Archive Project Files	All project documents are securely archived for future reference.	EP-014	EP-016	4	2	1 Project manager, 1 Design manager	6,400	The project manager ensures all files are archived, and the design manager helps organise technical documentation.
EP-016	Assess Project Management Tools and Techniques Used	Evaluation report on the effectiveness of tools and techniques utilised in managing the project.	EP-015	EP-017	8	4	1 Project manager, 1 Documentati on officer	9,128	Documentation team: The project manager leads the assessment, and the documentation team compiles the necessary reports on tool effectiveness
EP-017	Determine Compliance with Legal and Regulatory Requirements	Confirmation that all legal and regulatory requirements were met.	EP-016	EP-018	6	3	1 Compliance officer, 1 Project manager	7,698	The compliance officer ensures adherence to legal standards, and the project manager oversees the process.

Task ID	Task description	Task outcome	Precedin g task IDs	Following task IDs	Estima ted Effort (in days)	Estim ated Durati on (in days)	Resources required	Cost	Explanation
EP-018	Evaluate Change Management Processes	Report on the effectiveness of change management procedures and their impact on project success.	EP-017	EP-019	6	3	1 Change manager, 1 Compliance officer	10,020	The change manager reviews how well changes were implemented, while the compliance officer ensures that procedures follow regulations.
EP-019	Prepare and Distribute Final Project Report to Stakeholders	Stakeholders receive a final report summarising project achievements and outcomes.	EP-018	EP-020	0	ഗ	1 Project manager	5,052	The project manager prepares the final report, and stakeholders receive and review the final project outcomes.
EP-020	Evaluate Training and Development Programs	Assessment of the effectiveness of any training or development programs	EP-018	EP-021	4	2	1 Training specialists, 1 HR advisor	4,748	Training specialists assess the effectiveness of development programs, and HR ensures employee feedback is collected.

Task ID	Task description	Task outcome	Precedin g task IDs	Following task IDs	Estima ted Effort (in days)	Estim ated Durati on (in days)	Resources required	Cost	Explanation
		conducted during the project.							
EP-021	Conduct Financial Reconciliation	Completed financial reconciliation ensuring all expenses are accounted for and within budget.	CP-007, EP-020	EP-022	80	4	1 Financial team member, 1 Project manager	11,952	The financial team ensures all expenses are accounted for, and the project manager oversees the financial closure process.
EP-022	Assess Resource Utilisation and Efficiency	Evaluation report on how effectively resources (human, material, financial) were utilised.	EP-021	EP-023	4	2	1 HR advisor, 1 Project manager	5,448	HR evaluates resource allocation, and the project manager ensures efficient use of human resources and equipment.
EP-023	Review Project Scope Adherence	Assessment of whether all defined project scope	EP-022	EP-024	4	2	1 Project manager, 1 Project lead	6,648	The project manager verifies that the scope was adhered to, and team leads provide feedback on scope execution.

Task ID	Task description	Task outcome	Precedin g task IDs	Following task IDs	Estima ted Effort (in days)	Estim ated Durati on (in days)	Resources required	Cost	Explanation
		requirements were met.							
EP-024	Prepare Project Evaluation Presentation	Presentation prepared for stakeholders summarising evaluation findings.	EP-023	EP-025	4	2	1 Project manager, 1 Presenter	5,216	The project manager compiles the evaluation, and the presenters deliver it to stakeholders.
EP-025	Gather and Analyse End-User Feedback	Compiled feedback from end-users regarding the final product or service.	PP-013, EP-024	N/A	12	4	1 Survey technician, 2 Analysts.	15,372	Survey specialists collect end-user feedback, and analysts process and evaluate the data for continuous improvement

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# 4.2 Task Sequencing

The Activity-on-Node (AON) diagram illustrates the sequence and dependencies of tasks within the project, showing the critical path and highlighting essential relationships between activities. This high-level view helps identify task order and project flow. For a detailed breakdown, please refer to Appendix A.1.

## 4.3 Gantt chart

The Gantt chart presents a timeline for project tasks based on the AON structure, aligning with the project's WBS and chosen SDLC phases. It provides a visual overview of task durations, start and end dates, and key milestones. For the full Gantt chart, please refer to Appendix A.2.

# 4.4 Discussion of identified critical path dependencies

## **Milestone 1: Completion of Project Charter**

Checkpoint: Completion of DPG-001 and DPG-002.

**Justification**: Finalising the project charter ensures all stakeholders understand the objectives, scope, and expected outcomes, setting the project's direction. This milestone is essential for stakeholder alignment and framing the focus of subsequent tasks..

- **Impact of Delay**: Delays here impact stakeholder alignment, leading to scope creep, rework, and added costs.
- Optimisation Strategy: Concentrate resources and schedule critical reviews to ensure timely completion.
- Effect of Optimisation: Enables smooth transition to planning activities without delays.

# Milestone 2: Stakeholder Analysis and Communication Plan Completion *Checkpoint*: Completion of DPG-002.1 and DPG-008.

**Justification**: Clear stakeholder communication and needs assessment are crucial for structured engagement, preventing bottlenecks and misunderstandings.

- **Impact of Delay**: Delays can lead to misaligned expectations, collaboration issues, and project delays.
- Optimisation Strategy: Utilise stakeholder management tools with regular updates.
- **Effect of Optimisation**: Continuous engagement minimises rework and promotes smooth progress.

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## Milestone 3: Feasibility Study and Scope Definition

Checkpoint: Completion of DPG-003 and DPG-004.

**Justification**: Confirms project viability and sets scope boundaries to prevent scope creep.

- Impact of Delay: Could lead to resource misallocation and budget/schedule overruns
- Optimisation Strategy: Engage relevant experts early and use structured templates.
- Effect of Optimisation: Defined scope and feasibility guide appropriate resource allocation.

## Milestone 4: Risk Assessment and Mitigation Strategy Development

Checkpoint: Completion of DPG-007 and DPG-007.1.

**Justification**: Early risk planning enables proactive management, reducing potential disruptions.

- Impact of Delay: Increases likelihood of reactive changes and budget overruns.
- **Optimisation Strategy**: Use risk management frameworks, schedule regular risk review meetings.
- Effect of Optimisation: Minimises disruptions during later project stages.

## Milestone 5: Prototype Development and Testing

Checkpoint: Completion of DPG-018 and DPG-019.

**Justification**: Validates core functionality and provides a proof of concept, reducing technical risks.

- Impact of Delay: Delays push back full system design and quality assurance.
- **Optimisation Strategy**: Conduct regular stakeholder check-ins and document functionalities.
- **Effect of Optimisation**: Early validation supports smoother transition to full development.

# Milestone 6: Full System Design and Quality Assurance Framework

Checkpoint: Completion of DPG-015 and DPG-021.

**Justification**: Prepares system for rigorous testing to ensure stability and reliability.

- Impact of Delay: Allows defects to go undetected, leading to costly rework.
- Optimisation Strategy: Use automated QA tools and perform parallel design reviews
- Effect of Optimisation: Detects issues early, minimising rework and supporting system reliability.

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## Milestone 7: User Acceptance Testing (UAT)

Checkpoint: Completion of DPG-026.

**Justification**: UAT validates that the fully operational system meets user requirements and functions as intended. This milestone is critical for final verification before full implementation using a prototype, aligning the system with real-world use cases.

- **Impact of Delay**: Delays in UAT could affect the deployment timeline, leading to stakeholder dissatisfaction and increased costs.
- Optimisation Strategy: Schedule UAT in advance with end-user representatives.
- **Effect of Optimisation**: Timely UAT completion reduces the chance of last-minute adjustments.

## Milestone 8: Final System Deployment and Go-Live (Initial Deployment)

Checkpoint: Completion of PP-006 and PP-011.

**Justification**: Marks the system's initial deployment, verifying its performance across selected locations before full rollout. This milestone is essential for confirming readiness for a broader deployment.

- **Impact of Delay**: Disrupts planned operations and client satisfaction, potentially adding costs.
- **Optimisation Strategy**: Conduct deployment rehearsals and prepare dependencies well in advance.
- **Effect of Optimisation**: Ensures a smooth initial go-live event with minimal disruption.

## Milestone 9: System Deployment

**Checkpoint**: Completion of EPP-020.

**Justification**: Marks the full deployment of the system across all locations, achieving the final integration. This milestone is critical to delivering full project value to end users, confirming operational readiness across the entire organization.

- **Impact of Delay**: A delay would affect client satisfaction and lead to extended resource costs.
- Optimisation Strategy: Validate configurations, perform final rehearsals, and ensure all dependencies are met ahead of time.
- **Effect of Optimisation**: Minimises last-minute issues, ensuring a smooth transition to operational status.

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## Milestone 10: Review Post-Implementation and Close the Project

Checkpoint: Completion of CP-001 and CP-015.

**Justification**: The post-implementation review formalizes project closure, capturing lessons learned and confirming that objectives are met. This milestone is essential for a seamless transition to maintenance and support.

- Impact of Delay: Delays in closure block resources and hinder maintenance.
- Optimisation Strategy: Conduct phased reviews for timely feedback collection.
- **Effect of Optimisation**: smooth project closure enhances knowledge transfer and future project insights.

#### 4.4.1 Critical Path Discussion

All the milestones described form part of the project's critical path. Any delay in these activities will adversely impact the project timeline, as each milestone depends on the timely completion of earlier tasks. This interdependence forms a "domino effect," where delays in early milestones can affect subsequent tasks, potentially pushing back the project's planned completion date.

- **Milestone 7** (UAT) is essential for validating the system in its fully developed form, ensuring it meets user requirements before deployment.
- Milestones 8 and 9 represent the two stages of deployment, with Milestone 8
  marking the initial go-live and Milestone 9 marking the full operational rollout.

  Delays in these final phases could significantly impact client satisfaction and project success.

## 4.4.2 Optimising the Critical Path

- Resources Allocation: Allocate additional resources to bottleneck tasks, such as finalising the project charter, conducting UAT, and ensuring adequate support during Milestones 8 and 9 (initial and full deployment), to keep critical activities on schedule.
- 2. **Parallelisation**: Run certain tasks in parallel—like the development of the communication plan and stakeholder analysis—to optimise the timeline without compromising quality.
- 3. **Budget Increase**: An increased budget could allow for the hiring of specialised resources or acquisition of advanced tools, which would help expedite critical path tasks, particularly in quality assurance and deployment stages.

# 4.4.3 Impact of Optimisation

By optimising a critical path, the project efficiency is increased by reducing various risks and thereby facilitating timely delivery. More speed in completing the tasks adds flexibility

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toward any unexpected problems, which in turn increases stakeholder satisfaction and lowers the overall project costs.

# 4.5 Best estimate of time and Validation of proposed budget

#### 4.5.1 Best estimate of time

Section	Length (Days)
Define Project Goals	124
Plan Project	95
Execute Project Plan	89
Close Project	80
End Project	63
	Total: 451 Days

The best estimate of time is calculated by referring to the earliest finish of each task, in the AON diagram; which comes out to the total of an estimated 451 days at the earliest. Accounting for the latest finish time, the total estimated time is once again, 451 days.

With our start date of 1st July 2025 and end date of May 1st 2026, our projected estimate of time far exceeds the 304 days allocated towards the project. Our team justifies the estimated 451 days due to the complexities and time constraints of certain tasks. Reducing the estimated days will lead to severe complications within the project.

# 4.5.2 Initial 'Top-Down' Budget Allocation

Given a budget of \$2.5 million, the top-down budget allocation follows:

Phase	Allocation %	Allocated Budget \$
Define Project Goals	10%	\$250,000
Plan Project	20%	\$500,000
Execute Project Plan	40%	\$1,000,000
Close Project	15%	\$375,000
End Project	15%	\$375,000
Total	100%	\$2,500,000

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## 4.5.3 'Bottom-Up' Estimate Matching Task List

The bottom-up estimate extrapolated from the task list is as follows:

Phase	Allocation %	Allocated Budget \$
Define Project Goals	7%	\$183,420
Plan Project	6%	\$147,497
Execute Project Plan	20%	\$494,359
Close Project	7%	\$158,096
End Project	8%	\$208,388
Surplus	52%	\$1,308,240
Total	100%	\$2,500,000

## 4.5.4 Cross-Validation and Recommendations

	Top Down	Bottom Up
Budget Utilised (\$x; y%)	\$2,500,000; 100%	\$1,191,760; 48%
Surplus (\$x; y%)	\$0; 0%	\$1,308,240; 52%

The top down budget allocation utilised all \$2.5 million, whereas the bottom up estimate utilised only \$1,191,760. The recommendations are:

- **1.** Due to the estimated 451 Days required for project completion, more funds should be allocated to tasks to reduce the project completion time.
- 2. Breaking down certain tasks through hiring more workers who specialise in that field will utilise the surplus of funds as well as reducing the completion time.
- 3. Introduce money bonus incentives for faster milestone achievements.
- **4.** Reserve 40% of the surplus funds into a contingency fund to account for any unexpected events e.g. delays, required human resources, outsourcing, other cost related and or similar issues.
- 5. Invest surplus funds elsewhere; employee training, other major projects, etc.

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## 4.5.3 Discussion on Timeline and Cost Contingencies

The project's estimated completion time of 451 days requires a lot of tasks hence there are several factors which can affect the timeline, i.e. resource availability, scope changes, delays in deliverables. As mentioned in 4.5.4 the contingency fund aims to address any issues that may arise during the different phases. This contingency fund acts as a financial buffer which enables the project team to quickly adapt to any changes without affecting the project's timeline and budget; there will still be 60% of the remaining of the 52% initial surplus.

# 4.6 Human resourcing estimate

Roles	People Needed	Length Employed (Days)	Rate /Day (AUD)	Reference For Rate (indeed = blue; Other = green)
Entry level Developer (Coder)	17	24	320	(Entry Level Software Engineer Salary in Australia, 2024)
Intermediate level Developer	112	74	560	(Software Engineer, 2024)
Senior level Developer	41	59	850	(Senior Software Engineer Salary in Australia, 2024)
СТО	2	9	620	(Chief Technology Officer Salary in Australia, 2024)
Project Manager	37	186	510	(Project Manager Salary in Australia, 2024)
Senior Project Manager	16	52	842	(Senior Project Manager Salary in Australia, 2024)
CEO	1	5	898	(Chief Executive Officer Salary in Australia, 2024)
Analyst	12	68	429	(Analyst Salary in Australia, 2024)
QA Engineer	10	38	681	(Quality Assurance Analyst Salary in Australia, 2024)
Project Lead	3	8	821	(Project Lead Salary in Australia, 2024)
HR Advisor	3	6	519	(Human Resources Advisor Salary in Australia, 2024)

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Roles	People Needed	Length Employed (Days)	Rate /Day (AUD)	Reference For Rate (indeed = blue; Other = green)
Team Manager	1	3	363	(Team Leader Salary in Australia, 2024)
Risk manager	4	4	658	(Risk Manager Salary in Australia, 2024)
Senior Risk Manager	3	7	740	(Senior Risk Manager Salary in Australia, 2024)
Communications Manager	1	2	669	(Communications Manager Salary in Australia, 2024)
Financial Analyst	6	32	654	(Financial Analyst Salary in Australia, 2024)
Senior Financial Analyst	1	3	820	(Senior Financial Analyst Salary in Australia, 2024)
Documentation Officer	3	10	317	(Documentation Officer Salary in Australia, 2024)
Survey Technician	3	10	358	(Survey Technician Salary in Australia, 2024)
Design Manager	1	2	758	(Design Manager Salary in Australia, 2024)
Compliance Officer	2	6	443	(Compliance Officer Salary in Australia, 2024)
Compliance Manager	3	10	1227	(Change Manager Salary in Australia, 2024)
Training Specialist	4	5	668	(Training Specialist Salary in Australia, 2024)
Presenter	1	2	465	(Presenter Salary in Australia, 2024)
Stakeholder Manager Lead	5	9	300	(Stakeholder Manager Salary in Australia, 2024)
Senior Market Research Analyst	1	3	500	(Senior Research Analyst Salary in Australia, 2024)

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Roles	People Needed	Length Employed (Days)	Rate /Day (AUD)	Reference For Rate (indeed = blue; Other = green)
Security Specialist	1	10	250	(Security Specialist Salary in Australia, 2024)
Senior Security Specialist	1	2	525	(Senior Security Specialist Salary in Australia, 2024)
Risk Analyst	4	6	650	(Risk Analyst Salary in Australia, 2024)
Senior Risk Analyst	2	3	700	(Senior Risk Analyst Salary in Australia, 2024)
Business Analyst	6	57	425	(Business Analyst Salary in Australia, 2024)
Senior Data Analyst	1	3	390	(Senior Data Analyst Salary in Australia, 2024)
Technical Analyst	2	19	460	(Technical Analyst Salary in Australia, 2024)
Stakeholder Manager	3	13	510	(Stakeholder Manager Salary in Australia, 2024)
Reporting Analyst	1	4	390	(Reporting Analyst Salary in Australia, 2024)
UI/UX Designer	1	6	400	(UX/UI Designer Salary in Australia, 2024)
Senior UI/UX Designer	1	6	460	(Senior User Interface Designer Salary in Australia, 2024)
QA Engineer	9	29	388	(Quality Assurance Engineer Salary in Australia, 2024)
Senior QA Engineer	1	6	500	(Senior Quality Assurance Engineer Salary in Australia, 2024)
Tester	4	11	393	(Tester Salary in Australia, 2024)
User Representative	1000	~14	90	Group Chosen daily Rate

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Roles	People Needed	Length Employed (Days)	Rate /Day (AUD)	Reference For Rate (indeed = blue; Other = green)
IT Support	2	3	292	(IT Support Salary in Australia, 2024)
Senior IT Support	1	3	360	(Senior IT Support Salary in Australia, 2024)
Technical Writer	3	9	543	(Technical Writer Salary in Australia, 2024)
Editor	2	5	335	(Editor Salary in Australia, 2024)
Legal Advisor	1	2	432	(Legal Advisor Salary in Australia, 2024)

~14 days; Users will be contracted for an initial 14 days. Depending on the outcome, they can be further employed for longer periods.

## **5 Conclusion**

This project's comprehensive planning has established a clear path for successfully implementing the Guest Hospitality System (GHS), with major points covering stakeholder engagement, risk management, and adherence to the Waterfall SDLC to ensure timely delivery. Key approvals needed include confirmation from stakeholders on final requirements, budget validation by the finance team, and sign-off on risk mitigation strategies by the project governance board. To move forward, we recommend prioritizing early-stage user testing and solidifying training plans for resort staff to facilitate seamless adoption.

The PMP approach offers structured oversight and expertise to keep the project on track, ensuring alignment with TRG's strategic objectives. In conclusion, with these foundational elements secured, we are well-positioned to initiate the next project phase and achieve project goals by the set deadline.

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## 6 Slide Pitch

#### Slide 1

# Guest Hospitality System (GHS) Project Pitch

Prepared for Tropical Retreats Group (TRG) by Project Management Consultants Pty Ltd (PMP)



Presented: 03/11/24

#### Slide 2

# **Executive Summary**

#### **Purpose**

☐ Provide an overview of the Guest Hospitality System (GHS) project and PMP's role in transforming TRG's resort operations.

#### Goal

☐ Develop and implement a state-of-the-art integrated system across all TRG resorts.

#### **Key Outcomes**

- ☐ Enhance guest experience through streamlined, automated services.
- ☐ Boost operational efficiency across resorts.
- ☐ Established scalable infrastructure to support future growth and potential expansion.

Project Management Consultants Pty Ltd (PMP)

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# **Project Objectives & Value Proposition**

Objectives	Value Proposition	
☐ Streamline guest Services	☐ Reliable, user-friendly system	
☐ Centralise guest data for personalization	☐ Adaptable for future expansion	
☐ Improve operational management	☐ Aligned with TRG's luxury brand	

## Slide 4

# Scope & Key Features of the GHS

Scope Overview	Key Features	
☐ Integrated booking & payment		
☐ CRM for guest profiles	☐ Mobile app & kiosk integration	
☐ Activity & rental management	☐ Real-time reporting for operations	
☐ Childcare scheduling		
☐ E-commerce for merchandise		

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# **Project Timeline & Milestones**

Milestones	Critical Path
<ul> <li>□ Charter Completion</li> <li>□ Stakeholder Analysis &amp; Communication Plan</li> <li>□ Feasibility Study &amp; Scope Definition</li> </ul>	"Key dependencies are underlined to ensure timely delivery. Completion of the charter provides a firm grounding, while early risk assessment allows mitigation that might as well happen
□ Risk Assessment & Mitigation □ Prototype Development & Testing □ System Design & Quality Assurance	before prototype testing. User Acceptance Testing (UAT) on a prototype version will validate the alignment of the system to user requirements and prepare the system for the Go-Live phase. System Deployment: This ascertains that operational
☐ User Acceptance Testing (UAT) on Prototype ☐ Go-Live Deployment (Initial) ☐ System Deployment	readiness in the live environment is assured and is the last project milestone"

## Slide 6

Project Management Consultants Pty Ltd (PMP)

# **Risk Management Approach**

☐ Proactive Planning ☐ Budget Control
☐ Budget Control
□ budget Control
☐ Stakeholder Engagement
ed Delays & Costs on schedule and within budget, ensuring a successful rollout"

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# **Project Budget & Resource Allocation**

#### **Resource Plan Cost Breakdown Budget Justification** ☐ **Developers** (Entry, Intermediate, Senior) for coding and integration. ☐ QA Specialists for Reliability and "Budget allocation ensures Security. "Phases: Planning, resources are focused on Design, Development, critical milestones for ☐ Project Management Team (risk, Testing, Deployment" efficient, cost-effective finance, communication) for execution delivery" and stakeholder alignment.

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#### Slide 8

# PMP's Commitment & Why Choose Us

- i. Experience & Expertise
- ii. Commitment to Quality
- iii. Future Partnership Potential

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# **Next Steps & Call to Action**

# Approvals Needed Client sign-off on project charter and budget allocation. Description: Descripti

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#### Slide 10

# Thank you & Q&A

"We appreciate the opportunity to discuss how the Guest Hospitality System (GHS) will enhance TRG's operations and guest experience"

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# 7 Appendix

#### A.1 Activity-on-Node (AON):

 Detailed Diagram: For a complete view of all tasks and dependencies, refer to the detailed AON diagram by <u>clicking here</u>.

#### A.2 Gantt Chart

• Full Gantt Chart: For the complete project timeline and task breakdown, view the full Gantt chart by <u>clicking here</u>.

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