**1. Document 1- Business case document**

Answer:

A. Why is this project initiated?

Raamaya Technologies, an IT reseller and system integrator for government organizations, has been handling its processes manually. The company participates in bids, tenders, and takes orders from government entities. The manual system is inefficient and with error chancing, causing delays, inaccurate data, and limited insight into business performance. With an increasing number of bids and government contracts, the company faces challenges in scaling operations, improving efficiency, and maintaining competitive advantage.

The decision to implement SAP ERP software is to streamline processes, increase bid participation, generate revenue, and improve decision-making by integrating business functions into one centralised system.

B. What are the current problems?

* Improper Tender Management Process
* Inefficient Document Management
* Difficulty in Tracking and Managing Compliance Requirements.
* Lack of Centralized Project Management
* Inability to Monitor Real-Time Performance and Metrics
* Difficulty in Collaboration and Communication Across Teams
* Slow Response Time to Tender Opportunities
* Challenges in Managing OEM, distributor & Vendor Relationships.

C. With this project how many problems could be solved?

* Automated Processes
* Centralized System
* Accurate Data
* Improved Reporting
* Scalability
* Compliance Management
* Risk Mitigation
* Streamline with OEM, distributor, vendors
* Streamline with procurement & Financials

D. What are the resources required?

* Human resources: Project Manager, Business analyst, SAP consultant, IT Team, Sales Team, Procurement team, SAP Trainer.
* Technical resources: SAP ERP Software, Server, Storage, laptop, desktop, integration tools, security & backup systems
* Financial resources: Budget for SAP software procurement and customization as per government procurement process.

E. How much organizational change is required to adopt this technology?

* Process re-engineering: Raamaya Technologies will need to redefine and optimise business process to align with SAP’s best practice.
* Change management: Employees will need to be trained to use the new ERP system, and a clear communication plan will be necessary to ensure smooth adoption.
* Resistance to change: There may be resistance to change, so proper training, support, and leadership will be required to facilitate the transition.

F. Time frame to recover ROI?

The time frame to recover ROI from the SAP implementation may take 2-3 years. By improving bid management and project tracking, Raamaya can potentially win more contracts, thus increasing revenue.

G. How to identify Stakeholders?

A stakeholder is a person or group of people or organization with an assigned interest in the decision making and activities of business organisation, or project. They can directly or indirectly influence the activities of project of an organization. Their support is often crucial for the success of a business project.

A stakeholder analysis is a process of identifying people before the project begins; grouping them according to their levels of participation, interest, and influence in the project; and determining how best to involve and communicate each of these stakeholder groups throughout.

 (i) Internal Stakeholders:

* Executive Leadership (MD)
* Sales team
* Finance team
* Procurement team
* Project Managers
* Business Analyst
* IT Team
* End Users (Employees)

(ii) External Stakeholders:

* SAP consultant
* SAP Vendors

**2. Document 2: BA Approach Strategy**

As a Business Analyst, I will follow below strategy to complete a project effectively.

A. What Elicitation techniques to apply?

* Interviews: Conduct one-on-one interviews with key stakeholders to understand their pain points, needs, and expectations.
* Workshops: Organize collaborative workshops where stakeholders can come together to define and prioritize requirements.
* Surveys/Questionnaires: Use surveys to gather feedback from a larger group of users, especially regarding current processes.
* Brainstorming: The goal of your brainstorming session would be to gather requirements, understand the current challenges, and ensure the successful implementation of the Sales ERP software (SAP).
* Document Analysis: Review existing documentation on current processes, bids/tender management, and any existing ERP or manual systems.
* Observation: Observe the current business processes in action to understand inefficiencies, bottlenecks, or gaps.

B. How to do stakeholder analysis RACI/ILS?

(i) Internal Stakeholders:

* Executive Leadership (MD)
* Sales Team
* Finance team
* Project Managers
* Business Analyst
* IT Team
* End Users (Employees)

(ii) External Stakeholders:

* SAP consultant
* SAP Vendors & Suppliers

I have used RACI elicitation technique to clarify the roles of each stakeholder in the project.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Task** | **PM** | **BA** | **IT** | **Sales** | **Procurement** | **Finance** | **End Users** | **SAP Consultants** | **MD** |
| Needs Assessment & Requirements Gathering | A | R | C | C | C | C | I | C | I |
| Vendor Selection/ERP Software Configuration | A | C | R | C | C | C | I | R | I |
| System design - Customizing SAP as per Govt. procurement system | C | R | A | C | C | C | I | R | I |
| Data Migration (Manual to SAP) | R | C | A | I | C | C | I | R | I |
| UAT Testing | C | C | A | I | C | C | I | R | I |
| Go-Live  | A | C | R | C | C | C | R | R | I |
| Maintenance | A | R | C | C | C | R | I | C | I |

C. What documents to Write?

(i) Business Requirements Document (BRD): Define high-level business objectives, project scope, and functional/non-functional requirements. Ensure alignment with Raamaya’s business goals.

(ii) Functional Requirements Document (FRD): Detail the functional and technical specifications, mapping out how SAP ERP will meet business needs (e.g., sales, procurement, finance).

(iii) Non-Functional Requirements Document (NFRD): Includes performance, security, scalability, and other system-related specifications.

(iv) Gap Analysis Document: Identifies the gap between the current system and the desired ERP solution.

(v) Test Plans and Test Cases: Develop test cases for User Acceptance Testing (UAT) to ensure that the system works as expected.

(vi) Change Request Log: A document to track and manage any changes to the project scope or requirements.

(D) What process to follow to sign off on the documents?

* Document Review: Share the document with relevant stakeholders (subject matter experts, department heads, and sponsors) for feedback and input.
* Revision and Updates: After receiving feedback, update the document to reflect the final requirements, ensuring all stakeholders are satisfied.
* Formal Approval: Set up a formal review meeting with key stakeholders to discuss and approve the document. Ensure everyone signs off on it.
* Record Sign-Off: Use an electronic signature tool or keep a record of the meeting minutes as evidence of the formal approval.

(E) How to take Approvals from the Client?

* Review Meetings: Schedule regular meetings with the client to review the progress, discuss requirements, and ensure alignment.
* Document Approval: Ensure that the client has formally approved all key documents such as the BRD, FRD, Test Plans, and Change Requests.
* Progress Reports: Provide clients with regular updates on the status of the project, any roadblocks, and next steps.

(F) What communication channels to establish and implement?

* Internal Communication: Set up a shared platform like Microsoft Teams, Zoom Meeting for the project team to communicate, share updates, and store documents.
* Client Communication: Define clear communication channels like email, video conferencing, project management software for interacting with the client.
* Weekly Updates: Send weekly progress updates to both internal stakeholders and the client to keep everyone aligned.

(G) How to handle change request?

* Document the Change Request: All changes should be captured in a change request form, outlining the nature of the change, reasons for the change, impact analysis, and any associated costs.
* Impact Assessment: Evaluate the impact of the change on the project schedule, resources, and budget.
* Approval Process: Obtain approval from relevant stakeholders (including the client) before implementing the change.
* Update Documentation: Revise project documents requirements, timelines, test plans to reflect the changes.

(H) How to update the progress of the project to the Stakeholders?

* Weekly Status Reports: Provide detailed updates on progress, milestones, risks, and issues. Share these via email or project management tools.
* Stakeholder Meetings: Schedule monthly or bi-weekly meetings with key stakeholders (e.g., project steering committee) to review progress and address concerns.

(I) How to take signoff on the UAT- Client Project Acceptance Form)

* UAT Preparation: Develop a UAT plan that includes testing scenarios, test cases, and a timeline.
* UAT Execution: Facilitate UAT sessions with end users, ensuring they validate the system against their daily tasks.
* Collect Feedback: Track any issues identified during UAT, ensuring they are addressed before final approval.
* Final Approval: Once UAT is completed successfully, present the UAT results to the client for formal approval.
* Client Project Acceptance Form: Once UAT is complete and all issues are resolved, present the client with a Project Acceptance Form to sign off, confirming that the system is ready for production.

**3. Functional specifications:-**

|  |  |
| --- | --- |
| Project name | Raamaya SAP ERP Implementation |
| Customer name | Raamaya Technologies |
| Project version | Version 1.0 |
| Project sponsor | Mr. Ashit Khandelwal |
| Project manager | Mr. Amit Srivastava |
| Project Initiation date | 03-03-2025 |

Functional requirement:-

|  |  |  |  |
| --- | --- | --- | --- |
| Req. ID | Req. Name | Req. Description | Priority |
| FR0001 | Enquiry Management | System should record the enquiry, tracking status and reminder for follow up. | 10 |
| FR0002 | Quotation Management | System should generate quotation, quotation approval, quotation expiry & notifications, conversion to sales order. | 10 |
| FR0003 | Sales Order Management | System should create sales order, order confirmation, internal approvals. | 10 |
| FR0004 | Procurement Management | System should generate purchase order, vendor selection, PO approval, order tracking & delivery management. | 10 |
| FR0005 | Billing Management | Invoice generation, invoice approval. Tax calculations | 10 |
| FR0006 | Delivery Management | Delivery scheduling, tracking & monitoring, delivery confirmation | 10 |
| FR0007 | Report Generation | System should be able to generate detailed report of lead, sales, finance, purchase, payment, delivery. | 8 |
| FR0008 | Collaboration with Other Departments | System should display required information of other department. | 8 |
| FR0009 | OEM Management | OEM database, OEM partnership management, notify about renewal of partnership. | 8 |
| FR0010 | Distributor management | Distributor database, Registration with distributor, Distributor order creation. | 8 |
| FR0011 | Vendor management | Vendor data base, vendor performance tracking, vendor purchase order creation. | 8 |
| FR0012 | Customer Relationship Management | Customer data management, customer internal tracking, CRM reporting, sales pipeline management | 10 |
| FR0013 | Payment management | Payment tracking, payment terms, reminder notifications | 9 |
| FR0014 | Installation & service management | Service order creation, resource scheduling, Service Level agreement, post installation report | 9 |

**4. Requirement Traceability Matrix:-**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Req. ID | Req. name | Req. description | Design | D1 | T1 | D2 | T2 | D3 | T3 | D4 | T4 | UAT |
| REQ-001 | Enquiry Management | System should record the enquiry, tracking status and reminder for follow up. | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| REQ-002 | Quotation Management | Quotation creation, quotation approval, quotation expiry & notifications, conversion to sales order. | Yes | Yes | Yes | Yes | Yes | Yes | Yes | WIP | No | No |
| REQ-003 | Sales Order Management | SO creation, order confirmation, order modification, internal approvals. | Yes | Yes | Yes | Yes | WIP | No | No | No | No | No |
| REQ-004 | Procurement Management | PO creation, vendor selection, PO approval, order tracking & delivery management. | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No | No |
| REQ-005 | Billing Management | Invoice generation, invoice approval. Tax calculations | Yes | Yes | Yes | Yes | Yes | WIP | No | No | No | No |
| REQ-006 | Delivery Management | Delivery scheduling, tracking & monitoring, delivery confirmation | Yes | Yes | Yes | Yes | Yes | Yes | No | No | No | No |
| REQ-007 | Report Generation | System should be able to generate detailed report of lead, sales, finance, purchase, payment, delivery. | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | WIP | No |
| REQ-008 | Collaboration with Other Departments | System should display required information of other department. | Yes | Yes | Yes | WIP | No | No | No | No | No | No |
| REQ-009 | OEM Management | OEM database, OEM partnership management, notify about renewal of partnership. | Yes | WIP | No | No | No | No | No | No | No | No |
| REQ-010 | Distributor management | Distributor database, Registration with distributor, Distributor order creation. | Yes | WIP | No | No | No | No | No | No | No | No |
| REQ-011 | Vendor management | Vendor data base, vendor performance tracking, vendor purchase order creation. | Yes | WIP | No | No | No | No | No | No | No | No |
| REQ-012 | Customer Relationship Management | Customer data management, customer internal tracking, CRM reporting, sales pipeline management | Yes | Yes | Yes | Yes | Yes | Yes | WIP | No | No | No |
| REQ-013 | Payment management | Payment tracking, payment terms, reminder notifications | Yes | Yes | No | No | No | No | No | No | No | No |
| REQ-014 | Installation & service management | Service order creation, resource scheduling, Service Level agreement, post installation report | Yes | WIP | No | No | No | No | No | No | No | No |

**5. Document 5- BRD Template**

Project Name: Raamaya SAP ERP Implementation

Project ID: RT-SAP-ERP-2025

Version ID: Version 1.0

Author: Komal Ajit Chauhan – Business Analyst

1. Document revisions: -

|  |  |  |
| --- | --- | --- |
| Date | Version number | Document changes |
| February 24, 2025 | 1.0 | Initial draft of functional requirements. |
| February 25, 2025 | 1.1 | Added changes based on stakeholder feedback and initial review. |
| February 28, 2025 | 2.0 | Final version of BRD after review and approval from all departments. |
| February 28, 2025 | 2.1 | Updated user permissions section based on security requirements. |

1. Approvals:-

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Role | Name | Title | Signature | Date |
| Project Sponsor | Mr. Ashit Khandelwal | Managing Director | Sign on final proposal & Client Acceptance Form | February 24, 2025 |
| Project Manager | Mr. Amit Srivastava | Project Manager | Sign on project mgt. perspective details. | February 25, 2025 |
| System Architect | Mr. Nikhil Pranjale | Senior System Architect | Sign on architecture of the solution | February 25, 2025 |
| Development lead | Mr. Chandra | Development Team Lead | Sign on technical aspects related to development. | February 26, 2025 |
| IT Support | Mr. Azim Tamboli | IT Head | Sign on technical feasibility document | February 27, 2025 |
| Quality Assurance | Mr. Sachin Deshpande | QA Head | Ensures quality standards are met in the proposed solution. | February 28, 2025 |

1. RASCI Chart :- Below is the RASCI Chart for IT Side & Client Side for creation of BRD.

|  |  |  |
| --- | --- | --- |
| Task | IT Side Stakeholders | Client Side Stakeholders |
| Project Sponsor  | BA | PM | System Architect  | IT Head | DB Admin | QA Head | SAP End Users | Business Owner | Departmental head |
| Define Scope & Objectives | I | R | C | C | C | C | I | C | R | S |
| Gather Business Requirements | S | R | A | C | C | C | I | C | I | C |
| Identify Stakeholders | C | R | A | C | C | C | I | C | I | S |
| Create Business Requirements Document (BRD) | C | R | A | S | S | S | I | C | I | C |
| Review BRD Draft | C | A | R | C | C | C | C | S | I | S |
| Validate Business Requirements | C | A | R | C | C | C | C | R | S | C |
| Approval of Final BRD | A | R | C | C | C | C | I | R | A | S |
| Document Change Requests | C | A | R | C | C | C | S | C | R | C |

1. Introduction:-

4.1 Business Goal:-

(i) Organizational goal:

* **Increase Operational Efficiency:** Automating manual processes with SAP Sales ERP will improve workflow efficiency, reduce administrative time, and increase productivity.
* **Improve Sales Performance**: The goal is to streamline the sales process, enhance decision-making, and improve sales conversion rates by leveraging real-time data and integrated systems.
* **Enhance Customer Satisfaction**: A more responsive and efficient system will improve order processing, invoicing, and customer communication, leading to better customer retention and satisfaction.
* **Ensure Compliance and Transparency**: Implementing SAP will enable better reporting and auditing capabilities, ensuring the business meets government regulatory requirements and provides transparency.
* **Optimize Procurement**: The system will help manage procurement processes more efficiently, minimizing stockouts, reducing excess stock, and ensuring timely deliveries.
* **Enable Scalable Growth**: SAP ERP will provide a foundation for the company’s expansion by supporting larger data volumes, more clients, and increased transactions.

(ii) Organization need:

* **Centralized Data Management**: Raamaya needs a unified system to consolidate business data, ensuring efficient decision-making and reporting without relying on disconnected systems.
* **Advanced Reporting and Analytics**: A robust reporting system is required to provide insights into sales, inventory, and customer behavior, which helps in making informed business decisions.
* **Enhanced Collaboration Across Departments**: The organization needs better collaboration between departments through an integrated system, enabling efficient communication and sharing of information.
* **Reduction of Manual Errors**: SAP will minimize human errors in processes like pricing, order entry, and inventory management, ensuring accuracy and consistency.
* **Improved Customer Relationship Management (CRM)**: The system needs to improve customer relationship management by capturing detailed profiles, tracking ongoing projects, and facilitating proactive engagement.
* **Streamlined Billing and Payment Process**: A streamlined billing system will improve invoicing accuracy, payment tracking, and cash flow management, particularly for government contracts.

4.2 Business Objective:-

Raamaya Technologies aims to improve its operational efficiency, streamline sales and procurement processes, enhance customer satisfaction, and ensure regulatory compliance by implementing an SAP ERP system. The ERP system will automate manual processes, provide real-time data, and offer a centralized platform for managing sales, procurement, customer relationships, and reporting.

This SAP ERP will provide below functionalities:

1. Sales Management (Enquiry, Quotation, and Order Management)
2. Procurement and Vendor Management
3. Customer Relationship Management (CRM)
4. Financial Management and Invoicing
5. Reporting and Analytics

4.3 Business Rules:

Organizational Policies:-

* Code Of conduct: Outlines the ethical guidelines and professional behavior expected of all employees.
* Data Security: All sensitive data must be encrypted and accessed only by authorized personnel.
* Compliance: All operations, especially government contracts, must follow to relevant regulations.
* Confidentiality: Employees must sign Non-Disclosure Agreements to protect sensitive business information.

Organizational Procedures:-

* Enquiry Management:

Enquiry: All customer inquiries via email or phone should be recorded in the SAP ERP system with a unique enquiry ID.

Quotation: Once the enquiry is clear and the required details are gathered, create a **quotation** in the SAP ERP system using predefined templates that include.

* Quotation Management:

Quotation Approval: Government quotes must be approved in SAP System before issuance.

Order Processing: Quotation require customer confirmation and approval before processing for bid publishing.

Bid Tracking: Bid status should be updated regularly tracked on GeM Portal.

* Bid Management:

Bidding: After downloading bid, check qualification, contact OEMs & distributor, prepared documents & participate in bid before deadline.

Check bid Evaluation: Check technical & financial evaluation of bid.

Update bid details in SAP ERP.

* Order Management:

Sales Orders: Order should be accepted within 24 hours of receiving on GeM Portal and entered details in SAP ERP.

Order Processing: Orders require customer confirmation and approval before processing. Process through SAP ERP.

Order Tracking: Sales order status should be updated regularly and communicated.

* Procurement and Vendor Management:

Vendor Selection: New vendors must be evaluated and approved for reliability and compliance.

Procurement Approval: Purchase orders require managerial approval before issuance.

Supplier Performance: Vendor performance must be tracked and reviewed regularly.

* Customer Relationship Management (CRM):

Customer Data: Customer profiles must be regularly updated with accurate information.

Customer Communication: All communications must be logged, with follow-up within 48 hours.

Service Requests: Support tickets must be resolved within a defined SLA.

* Financial Management and Invoicing:

Invoicing: Invoices should be auto-generated, reviewed, and sent after approval.

Payment Tracking: Payments must be tracked against invoices, with reminders for overdue payments.

Financial Reporting: Regular reports (monthly, quarterly) must be generated for performance tracking.

Tax Compliance: Invoicing must comply with tax regulations for government transactions.

Rules and Regulations:-

* Compliance with Government Regulations: Ensures the company follows relevant government regulations, including procurement laws, tax regulations, and tendering processes.
* Data Access and Security Regulations: Establishes strict guidelines for employee access to sensitive data and systems, particularly related to government contracts.
* Procurement Regulations: Defines the process for procurement, including vendor selection, contract negotiation, and compliance with governmental procurement guidelines.
* Financial Auditing and Reporting Regulations: Ensures that financial transactions are recorded accurately and compliant with international financial reporting standards (IFRS) or local financial regulations.

4.4 Background:-

Raamaya Technologies, an IT reseller and system integrator company, has been providing services to government organizations for several years. They have built a strong reputation in the market by participating in bids, tenders, and executing government contracts. However, the company has faced significant challenges in managing its operations, particularly in handling sales, orders, procurement, and customer relationships, all of which have traditionally been managed manually.

As the business grew and demand for services increased, the existing manual systems became inefficient, error-chancing, and difficult to manage. The lack of automation in key processes led to delays in processing orders, difficulties in tracking customer interactions, and an overall slowdown in the company's ability to respond to customer needs efficiently.

Hence, Raamaya Technologies decided to implement an Enterprise Resource Planning (ERP) system, specifically SAP ERP, to streamline business processes and overcome the limitations of their current manual system.

Business Issues/Problems Identified:

* Manual & Fragmented process
* Inefficient Tender and Bid Management
* Lack of Real-Time Reporting and Data Insights
* Data Inaccuracy and Inconsistency
* Scalability and Growth Limitations

Expected Benefits of Implementing the SAP ERP System

* Increased Operational Efficiency
* Improved Tender and Bid Management
* Improved Data Accuracy and Consistency
* Improved Customer Satisfaction
* Increase Organizational growth
	1. Project Objective:

The primary goal of implementing the SAP ERP system at Raamaya Technologies is to automate and streamline key business processes, such as sales, order management, procurement, financials, and customer relationship management. This solution will replace the current manual system, reducing inefficiencies, minimizing errors, and enabling better decision-making.

By integrating all business functions into one organized system, the SAP ERP will enhance Raamaya Technologies’ ability to deliver timely and accurate services to government clients, comply with regulations, and scale operations as the company grows.

What the SAP ERP will do?

* Automate Sales and Order Management:

The SAP Sales ERP system will automate the entire sales order process, from order creation and approval to invoicing and payment processing. This will eliminate manual errors, reduce delays, and improve overall order accuracy.

* Bid and Tender Management:

The ERP system will centralize all information related to government tenders and bids, including submission deadlines, compliance checks, and document tracking. This will streamline the submission process and ensure that all bids are completed on time and in compliance with government regulations.

* Customer Relationship Management (CRM):

Customer data will be integrated into the ERP system, allowing sales teams to access up-to-date information on customer orders, history, and preferences. This will lead to better customer engagement, enhanced service delivery, and improved retention rates.

* Scalable and Future-Proof System:

SAP ERP will be scalable, supporting the company’s future growth by enabling the addition of new product lines, services, and markets. As the business expands, the ERP system can seamlessly integrate with other systems or processes without requiring a complete overhaul.

* Financial Management:

Invoicing and Payment Processing: The system will automate the invoicing process, ensuring invoices are generated based on accurate sales order data, reducing the risk of errors. Payment tracking will be integrated, with reminders for overdue payments.

Alignment with Business Objectives:

1. Improved Efficiency: By automating manual processes across departments, SAP ERP aligns with the business goal of increasing operational efficiency, reducing manual errors, and speeding up service delivery.
2. Compliance and Transparency: The system will ensure that Raamaya Technologies adheres to government regulations and industry standards, helping to maintain and strengthen its relationships with government clients.
3. Enhanced Customer Experience: Through improved order processing, accurate data management, and effective customer support, the SAP ERP system directly supports the objective of providing superior customer service.
4. Data-Driven Decision Making: Real-time data, integrated reports, and performance dashboards will empower management to make data-driven decisions that align with strategic goals.
5. Scalability for Growth: The SAP ERP system will scale with the company as it grows, supporting the acquisition of new government contracts and expanding operations.

Requirements for Interaction with Other Systems:

1. Financial Systems: SAP will need to integrate seamlessly with Raamaya's accounting and financial management systems for invoicing, payments, and financial reporting. This will ensure that all sales transactions are recorded accurately and financial data is synchronized in real-time.

4.6 Project Scope:

The scope of the SAP ERP implementation project at Raamaya Technologies will focus on automating and streamlining key business processes to improve operational efficiency, compliance, and customer service. Below is a detailed scope of what will be developed and implemented in this project.

#### **What we are going to develop?**

#### 4.6.1. In Scope Functionality

#### Sales Order Management

#### Bid & Tender Management

#### Customer Relationship Management

#### Reporting & Analytics

#### Financial integration

#### Role based Access Control

#### Training & Support

####  4.6.2. Out Scope Functionality

#### Human Resource Management System (HRMS)

#### Marketing Management

#### Advanced Custom Development

#### **Third-Party Payment Gateways**

#### Customer Portal

5. Assumptions:

Below is a comprehensive list of assumptions and requirements that should be considered in the BRD.

* Resource Availability:

The project team members both IT and business stakeholders will be available throughout the project lifecycle. This includes business owners, system architects, development teams, and subject matter experts (SMEs).

* Software and Hardware Infrastructure:

Raamaya Technologies will provide the necessary IT infrastructure like servers, network, etc. to support the SAP ERP implementation, including SAP's hardware requirements and software licensing.

* Transition from manual system: Raamaya Technologies is ready to move from a manual to a digital system, and employees will be willing to adopt the new system after receiving adequate training and support.
* Integration with Existing Systems:

Assumption: SAP ERP will be able to integrate smoothly with any other existing systems such as Tally accounting software that are critical to the project scope.

* Efficient bid management: The bid management process will be standardized across all stakeholders, and the system will be able to automate the entire bidding cycle without requiring major customizations or manual interventions.
* User will accept automated process: Users will be open to automation after receiving adequate training and support. The automation is expected to improve efficiency, and users are not likely to resist its implementation.
* Stakeholder involvement: Key stakeholders will be available to provide timely feedback during the requirements gathering, design, and testing phases. Their involvement will be proactive and consistent throughout the project.
* Cost & timeline: The project will be completed within the defined budget and timeline unless unforeseen technical or operational challenges arise.

6. Constraints:

* Limited Budget & time: The project has constraints on both budget and timeline, meaning that resources and deliverables need to be prioritized, and the project must be completed within the specified cost and timeframe.
* Resources: The availability of internal staff for the implementation process may be limited. For example, key team members from different departments (sales, procurement, finance) will need to dedicate time to participate in the project, which could impact their regular duties.
* System Integration: The SAP ERP system needs to integrate with existing software and third-party systems such as government portals, financial systems, and email systems. This may introduce limitations based on the compatibility and readiness of current systems for integration
* SAP Software Customization: There may be limitations in customizing the SAP ERP system to meet Raamaya's specific needs without impacting overall system performance, maintainability, or upgrade paths.
* User adoption: Employees accustomed to the manual system may resist adopting the new ERP system, which could affect the speed and effectiveness of the implementation.

7. Risks:

a. Technological risk:

* System Compatibility Issues:

Avoid: Conduct a thorough compatibility assessment early in the project. Replace legacy systems or infrastructure if necessary to ensure compatibility with SAP.

Mitigate: Plan and execute a detailed systems integration plan that outlines dependencies and technical requirements for both legacy and SAP systems.

Transfer: Outsource compatibility testing to specialized consultants or vendors.

Accept: Accept that there may be minor adjustments or changes needed post-implementation if compatibility issues arise.

* System Performance Issues

Avoid: Ensure that the system is appropriately sized based on forecasted business growth. Plan for scaling the system in the future.

Mitigate: Test the system for load and stress under high volumes of transactions and implement necessary performance optimizations.

Transfer: Consider using a cloud solution that provides elastic scalability, with the vendor assuming responsibility for system performance.

Accept: Accept some performance limitations, but ensure that a maintenance and scaling plan is in place to manage future growth.

* Lack of Technical Expertise:

Avoid: Ensure that the team has the necessary technical skills or consider hiring experienced SAP professionals.

Mitigate: Provide training for internal team members and involve experienced SAP consultants throughout the project lifecycle.

Transfer: Engage external SAP consultants to manage technical aspects of the implementation.

Accept: Accept the learning curve and allocate additional resources for technical training and support.

b. Skills risk:

* Lack of SAP Expertise

Avoid: Hire SAP-certified consultants or staff with experience in SAP ERP systems.

Mitigate: Provide intensive training for internal teams and create a knowledge transfer plan to gradually build expertise.

Transfer: Contract with an SAP partner or third-party vendor to handle more complex configuration and implementation tasks.

Accept: Acknowledge that initial expertise gaps may exist and plan to upskill the internal team over time.

* Insufficient Training and Knowledge Transfer

Avoid: Build a comprehensive training plan for end-users, administrators, and IT staff. Include hands-on training, documentation, and a support plan.

Mitigate: Implement a phased training program, ensuring that knowledge transfer takes place during the implementation phase. Provide follow-up training sessions and user support.

Transfer: Work with SAP or third-party training providers to offer specialized and ongoing training programs.

Accept: Accept the risk of initial user mistakes post-implementation but ensure a robust support system and rapid issue resolution process is in place.

c. Political Risks

* Changes in Government Procurement Regulations:

Avoid: Stay closely informed about potential policy changes through proactive engagement with government agencies, industry groups, and legal advisors.

Mitigate: Build flexibility into the project scope to accommodate possible regulatory changes and ensure that the system can easily adapt to new requirements.

Transfer: Engage legal or compliance consultants to manage any changes in regulations and ensure that the SAP ERP implementation adheres to government policies.

Accept: Accept the risk of potential changes, but ensure that regular updates and reviews are conducted to stay compliant with new regulations.

* Political Instability or Changes in Government:

Avoid: Foster relationships with key stakeholders within the government to ensure long-term project buy-in. Stay informed of political climates and anticipate shifts.

Mitigate: Implement contingency planning, where alternative funding or support structures are in place should there be significant political changes.

Transfer: Transfer the responsibility of managing political risk to third-party stakeholders (e.g., lobbying groups or external consultants who are familiar with navigating political landscapes).

Accept: Accept that political shifts are often unavoidable, but ensure that the project remains adaptable to such changes.

d. Business Risks

* Misalignment with Business Objectives

Avoid: Conduct a detailed business analysis and requirements gathering process at the beginning of the project to ensure that the ERP system aligns with the business needs.

Mitigate: Regularly review project progress against business goals and adjust the system configuration or processes if misalignments are discovered.

Transfer: Engage business consultants with ERP implementation experience to ensure the system is tailored to business objectives.

Accept: Accept that some minor misalignments might be inevitable and focus on optimizing them post-implementation.

* Failure to Achieve User Adoption

Avoid: Engage end-users early in the process, providing them with training, clear benefits of the ERP system, and the opportunity for feedback during implementation.

Mitigate: Implement a comprehensive change management plan, including regular training, support resources, and user incentives to encourage adoption.

Transfer: Engage external change management consultants who specialize in driving ERP adoption to ensure successful user engagement.

Accept: Accept that resistance may occur, but plan for ongoing support and post-implementation training to ensure smooth adoption over time.

Competitive Risks

Avoid: Keep an eye on the competitive landscape and continuously innovate services to stay ahead.

Mitigate: Develop a flexible business model and ensure the ERP system is scalable to adapt to changes in business strategies.

Transfer: Outsource market research and competitor analysis to third-party agencies.

Accept: Accept that competition in the government sector may intensify and plan to regularly review strategies to stay competitive.

e. Requirement Risks

* Unclear or Changing Requirements

Avoid: Conduct thorough requirements gathering with all stakeholders upfront and ensure clear and well-documented requirements.

Mitigate: Set up a formal change control process to manage scope creep and ensure that any changes to requirements are evaluated and agreed upon before implementation.

Transfer: Engage a third-party consultant to ensure that requirements are accurately captured and documented.

Accept: Acknowledge that some requirements may evolve over time and have a flexible system design that can accommodate changes.

f. Other Risks:

* Vendor Dependency

Avoid: Ensure that internal teams have the necessary skills and knowledge to maintain andsupport the system after implementation.

Mitigate: Establish clear service level agreements (SLAs) with the vendor, and ensure that there is a knowledge transfer process in place.

Transfer: Shift some of the responsibility for maintaining and supporting the system to third-party service providers if needed.

Accept: Accept that for some periods, the company may rely on the vendor and plan to gradually reduce dependency by building internal capabilities.

8. Business Process Overview:

8.1. Legacy System (AS-IS):

The legacy system refers to the current processes and systems that Raamaya Technologies uses to manage their operations, which are primarily manual based on Microsoft Excel, Word, Powerpoint etc.

In the AS-IS system, the company deals with various tasks related to sales, procurement, government tenders, and order management manually, which can lead to inefficiencies, data inaccuracies, and a lack of real-time insights.

Process In Legacy System:-

* Manual Data Handling: Data is entered manually in multiple systems, which increases the risk of errors, redundancy, and inconsistencies.
* Inefficient Bid Management: The process of tracking tenders and bids is largely manual, making it difficult to stay on top of deadlines and ensure compliance with government regulations.
* Order Management Issues: Orders are tracked through disparate systems and spreadsheets, making it difficult to manage backlogs and fulfillment.
* Procurement Challenges: Manual procurement processes lead to inefficiencies and missed opportunities for cost optimization or supplier management.
* Inventory Management: Difficulty in tracking stock levels, order fulfillment, and managing supplier relationships.
* Limited Data Visibility: Key metrics and real-time data insights are not readily available, which hinders decision-making.

Process Flow diagram in Legacy System (AS-IS):



#### **2. Proposed Recommendations (TO-BE)**

#### Transition from Manual Processes to SAP ERP:

#### Implement SAP’s Sales and Distribution (SD) module to automate the bid management and tendering process. This will allow for faster and more accurate bid submissions, better tracking of deadlines, and improved communication with government clients.

#### Lead and Opportunity Management:

#### SAP ERP will centralize lead and opportunity management. Sales reps will be able to create opportunities, track progress, and forecast sales performance. The system will provide automated alerts for key milestones in the sales cycle.

#### Tender and Bid Management:

#### SAP will automate the process of tracking, managing, and responding to tenders and bids. The system will provide a centralized repository of active and upcoming bids, along with alerts for submission deadlines. Integration with external tender platforms and compliance management will ensure regulatory adherence.

#### Procurement and Supplier Management:

#### The system will track supplier performance and integrate supplier contracts for better management of procurement terms.

#### Financial Management and Compliance:

#### SAP ERP will automate financial reporting, enabling better tracking of income, costs, taxes, and government contract compliance. It will also improve the efficiency of invoicing, revenue recognition, and cost tracking for government contracts.

#### Customer Relationship Management (CRM):

#### SAP CRM will centralize customer data, enabling the sales team to have a better view of customer interactions, preferences, and histories. This will help in improving client satisfaction and retention, and providing better after-sales support.

#### Reporting and Analytics:

#### SAP ERP will provide real-time dashboards and reporting tools to analyze business performance, trends, and KPIs. Management will have access to integrated data for more informed decision-making and better forecasting.

#### Data Security and Confidentiality: SAP provides strong data security features, including role-based access control, encryption, and audit trails to protect sensitive information and ensure compliance with government data protection regulations.

**9. Business Requirements**

### **Business Requirements for SAP ERP Implementation at Raamaya Technologies.**

Business requirements are divided into **Functional** and **Non-Functional Requirements**, and a **traceability matrix** will be created to track these requirements throughout the project.

### **1. Functional Requirements**

#### **Enquiry management: System should record the enquiry, tracking status and reminder for follow up.**

#### **Quotation Management: System should generate quotation, quotation approval, quotation expiry & notifications, conversion to sales order.**

#### **Sales Order Management: System should create sales order, order confirmation, internal approvals.**

#### **Procurement Management: System should generate purchase order, vendor selection, PO approval, order tracking & delivery management.**

#### **Billing Management: Invoice generation, invoice approval. Tax calculations**

#### **Delivery Management: Delivery scheduling, tracking & monitoring, delivery confirmation**

#### **Report Generation: System should be able to generate detailed report of lead, sales, finance, purchase, payment, delivery.**

#### **Collaboration with Other Departments: System should display required information of other department.**

#### **OEM Management: OEM database, OEM partnership management, notify about renewal of partnership.**

#### **Distributor management: Distributor database, Registration with distributor, Distributor order creation.**

#### **Vendor management: Vendor data base, vendor performance tracking, vendor purchase order creation.**

#### **Customer Relationship Management: Customer data management, customer internal tracking, CRM reporting, sales pipeline management**

#### **Payment management: Payment tracking, payment terms, reminder notifications**

#### **Installation & service management Service order creation, resource scheduling, Service Level agreement, post installation report**

#### **2. Non-Functional Requirements**

#### **System Performance: The system should have minimal downtime during working hours**

* **Security: The system must ensure the security and confidentiality of government-related documents and sensitive business data.**
* **Usability: The system should be user-friendly with an intuitive interface for all users.**
* **Compliance: Ensure the system is compliant with relevant government regulations and standards.**

#### Scalability: The system should be scalable to handle an increasing number of tenders, orders, and users as the business grows.

* Reliability: Backup and disaster recovery processes must be in place.

### Requirement **Traceability Matrix:-**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Req. ID | Req. name | Req. description | Priority | Design | D1 | T1 | D2 | T2 | D3 | T3 | D4 | T4 | UAT |
| REQ-001 | Enquiry Management | System should record the enquiry, tracking status and reminder for follow up. | High | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| REQ-002 | Quotation Management | Quotation creation, quotation approval, quotation expiry & notifications, conversion to sales order. | High | Yes | Yes | Yes | Yes | Yes | Yes | Yes | WIP | No | No |
| REQ-003 | Sales Order Management | SO creation, order confirmation, order modification, internal approvals. | High | Yes | Yes | Yes | Yes | WIP | No | No | No | No | No |
| REQ-004 | Procurement Management | PO creation, vendor selection, PO approval, order tracking & delivery management. | High | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No | No |
| REQ-005 | Billing Management | Invoice generation, invoice approval. Tax calculations | High | Yes | Yes | Yes | Yes | Yes | WIP | No | No | No | No |
| REQ-006 | Delivery Management | Delivery scheduling, tracking & monitoring, delivery confirmation | High | Yes | Yes | Yes | Yes | Yes | Yes | No | No | No | No |
| REQ-007 | Report Generation | System should be able to generate detailed report of lead, sales, finance, purchase, payment, delivery. | High | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | WIP | No |
| REQ-008 | Collaboration with Other Departments | System should display required information of other department. | Medium | Yes | Yes | Yes | WIP | No | No | No | No | No | No |
| REQ-009 | OEM Management | OEM database, OEM partnership management, notify about renewal of partnership. | Medium | Yes | WIP | No | No | No | No | No | No | No | No |
| REQ-010 | Distributor management | Distributor database, Registration with distributor, Distributor order creation. | Medium | Yes | WIP | No | No | No | No | No | No | No | No |
| REQ-011 | Vendor management | Vendor data base, vendor performance tracking, vendor purchase order creation. | Medium | Yes | WIP | No | No | No | No | No | No | No | No |
| REQ-012 | Customer Relationship Management | Customer data management, customer internal tracking, CRM reporting, sales pipeline management | Medium | Yes | Yes | Yes | Yes | Yes | Yes | WIP | No | No | No |
| REQ-013 | Payment management | Payment tracking, payment terms, reminder notifications | Medium | Yes | Yes | No | No | No | No | No | No | No | No |
| REQ-014 | Installation & service management | Service order creation, resource scheduling, Service Level agreement, post installation report | Medium | Yes | WIP | No | No | No | No | No | No | No | No |
| REQ-015 | System Performance | The system should have minimal downtime during working hours | High | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| REQ-016 | Security | The system must ensure the security and confidentiality of government-related documents and sensitive business data. | High | Yes | Yes | Yes | Yes | Yes | Yes | WIP | Yes | Yes | Yes |
| REQ-017 | Usability | The system should be user-friendly with an intuitive interface for all users. | High | Yes | Yes | Yes | Yes | Yes | No | No | No | No | No |
| REQ-018 | Compliance | Ensure the system is compliant with relevant government regulations and standards. | Medium | Yes | Yes | Yes | Yes | Yes | Yes | Yes | WIP | No | No |
| REQ-019 | Scalability | The system should be scalable to handle an increasing number of tenders, orders, and users as the business grows. | Medium | Yes | Yes | Yes | Yes | WIP | No | No | No | No | No |
| REQ-020 | Performance | The system should have minimal downtime during working hours | Medium | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | WIP | No |
| REQ-021 | Reliability | Backup and disaster recovery processes must be in place. | High | Yes | Yes | Yes | Yes | WIP | No | No | No | No | No |

**10. Appendices**

#### **10.1. List of Acronyms**

|  |  |
| --- | --- |
| Acronym | Meaning |
| ERP | Enterprise Resource Planning |
| SAP | Systems, Applications, and Products in Data Processing |
| PO | Purchase Order |
| SO | Sales Order |
| CRM | Customer Relationship Management |
| ROI | Return On Investment |
| SD | Sales & distribution |
| UAT | User Acceptance Test |
| HRMS | Huma Resource Management System |
| RFQ | Request for Quotation |
| RFP | Request for Proposal |
| SLA | Service Level Agreement |
| BRD | Business Requirement Document |
| FRD | Functional Requirement Document |
| RTM | Requirement Traceability Matrix |

#### **10.2. Glossary of Terms**

|  |  |
| --- | --- |
| Term | Definition |
| Sales Order (SO) | A document created by the sales team to confirm customer order details and initiate the fulfillment process. |
| Purchase Order (PO) | A document issued by Raamaya Technologies to a supplier, indicating the products or services to be purchased. |
| Procurement Process | The process of acquiring goods or services, including the creation of purchase orders, vendor selection, and order fulfillment. |
| Bid Management | The process of identifying, preparing, and submitting bids or tenders to government or private sector clients. |
| Bid Preparation | The process of creating proposals and documents to respond to tenders or requests for proposals (RFPs). |
| Compliance | Adherence to laws, regulations, and standards relevant to business operations, including financial and procurement practices. |
| ERP System | A suite of integrated applications that help Raamaya Technologies manage core business processes such as sales, procurement, inventory, and financial reporting. |
| Customization | The ability to modify the standard features of the SAP ERP system to meet the specific needs of Raamaya Technologies. |
| Real-time Reporting | The ability to generate and view reports with up-to-date data, ensuring informed decision-making. |
| Automated Workflows | The automation of business processes (e.g., order processing, invoicing) using predefined rules and triggers. |

#### **10.3. Related Documents**

1. **Business Case Document**: Justification for the SAP ERP system implementation, including expected benefits, costs, and ROI.
2. **Project Plan**: A high-level schedule and timeline for the SAP ERP implementation, including major milestones and deadlines.
3. **System Architecture Document**: Defines the technical architecture of the SAP ERP system, including hardware and software requirements.
4. **Data Migration Plan**: A plan detailing how legacy data will be migrated to the SAP system, ensuring smooth transition and data integrity.
5. **Training Plan**: Outlines the approach for training users on the SAP ERP system, including who will be trained, how training will occur, and timelines.
6. **Change Management Plan**: A document detailing how changes within the organization will be managed to ensure smooth adoption of the new SAP ERP system.
7. **Risk Management Plan**: Identifies potential risks associated with the implementation and outlines mitigation strategies.