

DOCUMENT 1

Business Case: Nexus Drive

1. Why is this project initiated?

This project is initiated to replace XYMA Analytics' fragmented departmental software with a single, unified platform. The primary goal is to enhance operational efficiency, improve inter-departmental collaboration, and create a scalable technological foundation that supports the company's growth.

2. What are the current problems?

- **Siloed Operations:** Key departments (HR, Finance, Electronics, μ TMapS, etc.) use separate, disconnected software, preventing seamless data flow.
- **Manual Processes:** Fulfilling inter-departmental requests relies on manual, time-consuming processes like email and spreadsheets, leading to delays and errors.
- **Lack of Unified Data:** The absence of a central data repository makes it difficult to generate comprehensive reports and gain a holistic view of business operations.

3. With this project, how many problems could be solved?

This project will address all the core problems identified:

- It will **integrate** all departmental functions, automating workflows like leave requests, purchase orders, and expense reimbursements.
- It will establish a **single source of truth** for all company data, improving data accuracy and enabling real-time, cross-functional reporting.
- It will **streamline communication** by providing a centralized platform for all inter-departmental interactions.

4. What are the resources required?

- **People:** A dedicated project team including a Project Manager, Business Analyst, developers (backend/frontend), QA testers, and UI/UX designers.
- **Hardware:** Dedicated servers for hosting the application and database, along with robust backup and disaster recovery systems.
- **Software:** Development tools (IDEs, version control), a database management system, and API management tools for integration.
- **Budget:** An estimated total budget of ₹1,00,00,000.

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

- **Training:** All employees will require training on how to use the new integrated platform.
- **Process Adoption:** Departments will need to adapt their internal processes to align with the new, standardized workflows.
- **Mindset Shift:** A cultural shift towards leveraging a unified system for all operations will be encouraged, moving away from reliance on manual or separate tools.

6. Time frame to recover ROI?

The estimated timeframe to recover the return on investment (ROI) is approximately **18–24 months** post-deployment. This will be achieved through increased operational efficiency, reduced administrative overhead, and faster decision-making enabled by improved data access.

7. How to identify Stakeholders?

Stakeholders will be identified by mapping out all individuals and groups impacted by the project:

- **Primary Stakeholders:** Department heads from HR, Finance, Electronics, μ TMapS, PoRTS, and Software.
- **Project Sponsors:** Executive management who are championing and funding the project.
- **Technical Team:** The IT department, system architects, and developers who will build and maintain the platform.
- **End-Users:** A representative group of employees from each department who will use the system daily.

DOCUMENT 2

BA Strategy for Nexus Drive

1. BA Approach & Project Steps

My approach will be to act as the central liaison between XYMA's business units (HR, Finance, μTMapS, etc.) and the technical development team. The core steps will be:

- **Discover & Define:** Elicit and analyze requirements to create a clear, shared understanding of the project goals.
- **Document & Validate:** Create detailed documentation and secure formal approval from all stakeholders to establish a firm baseline.
- **Communicate & Manage:** Facilitate clear communication, manage changes, and ensure the developed solution aligns with the approved requirements.
- **Test & Accept:** Support the testing phases and facilitate the final project acceptance from XYMA leadership.

2. Elicitation Techniques

To ensure all requirements for the integrated platform are captured, a mix of the following techniques will be applied:

- **Interviews:** Conduct one-on-one sessions with department heads and key users at XYMA to understand their specific needs and pain points.
- **Workshops:** Facilitate collaborative sessions with representatives from multiple departments to define cross-functional workflows (e.g., procurement, employee onboarding).
- **Document Analysis:** Review XYMA's existing process manuals, forms, and reports to understand the "as-is" state.
- **Observation:** Shadow users in their daily tasks to gain practical insight into their operational challenges.

3. Stakeholder Analysis (RACI)

A stakeholder analysis will be performed to identify and manage all individuals impacted by the project.

- **Identification:** Key stakeholders include XYMA department heads, the executive management (Project Sponsors), the IT team, and end-users from each department.
- **RACI Matrix:** A RACI (Responsible, Accountable, Consulted, Informed) chart will be created to clarify the roles and responsibilities for each project task and deliverable, ensuring clear ownership.
- **Influence/Interest Grid:** Stakeholders will be mapped on a grid to prioritize engagement efforts based on their level of influence and interest in the project.

4. Documents to Write

The following key documents will be prepared to guide the project:

- **Business Case:** Justifying the project's initiation.
- **Business Requirement Document (BRD):** Detailing the High-level business needs.
- **Software Requirement Specification (SRS):** Outlining the specific functional and non-functional requirements of the platform.

- **Use Case & Activity Diagrams:** Visually modeling system interactions and workflows.
- **Requirement Traceability Matrix (RTM):** To track each requirement from its origin to its implementation.

5. Document Sign-off & Client Approval Process

A formal, multi-step process will be followed for all key documents:

- **Draft & Review:** A draft document will be shared with relevant stakeholders for review and feedback.
- **Incorporate Feedback:** All feedback will be reviewed, and the document will be updated accordingly.
- **Formal Approval:** The final version will be sent to the designated approvers (e.g., department heads, project sponsor) for formal sign-off via email or a project management tool.

6. Communication Channels

To ensure all XYMA stakeholders are kept informed, the following channels will be established:

- **Weekly Status Reports:** Emailed to all stakeholders, summarizing progress, risks, and next steps.
- **Bi-weekly Stakeholder Meetings:** To discuss project status in detail and address any open questions or concerns.
- **Project Dashboard:** A centralized dashboard (e.g., on Jira or a similar tool) to provide real-time visibility into project progress.

7. Handling Change Requests

A structured Change Control Process will be implemented:

- **Submission:** All change requests must be submitted through a formal Change Request (CR) form.
- **Analysis:** As the BA, I will analyze the impact of the CR on the project's scope, timeline, and budget.
- **Approval:** The CR and my analysis will be presented to a Change Control Board (composed of key project sponsors) for a formal "approve" or "reject" decision.

8. Updating Stakeholders on Project Progress

Progress will be communicated consistently through the established communication channels, primarily via the weekly status reports and bi-weekly meetings. This ensures transparency and keeps all stakeholders aligned.

9. UAT Sign-off (Client Project Acceptance)

The final project acceptance will be formalized as follows:

- **UAT Coordination:** I will coordinate the User Acceptance Testing (UAT) with end-users from each XYMA department.
- **Defect Management:** All issues found during UAT will be logged, prioritized, and tracked to resolution.
- **Final Acceptance:** Once all critical and major issues are resolved and the system is confirmed to meet the agreed-upon requirements, a **Client Project Acceptance Form** will be prepared and presented to the project sponsors for their final, formal sign-off, officially concluding the project.

Document 3

Functional Specifications

Project Name	Nexus Drive
Customer Name	XYMA Analytics Private Limited
Project Version	1.0
Project Sponsor	Dr. Nishanth Raja
Project Manager	Mr. Jamesh Babu
Project Initiation Date	25-September-2025

Functional Requirement Specifications:

User Management & Authentication

Req ID	Req Name	Req Discription	Priority
FR-001	User Authentication	The system must allow users to log in securely with role-based access.	9
FR-002	Dashboard	Upon login, the system must display a personalized dashboard with relevant summaries and pending actions.	9
FR-003	Employee Profile Mgmt	Employees must be able to view and manage their personal and professional information.	7
FR-004	Attendance Tracking	The system must allow employees to mark daily attendance and view their attendance history.	9
FR-005	Leave Request Workflow	The system must facilitate the entire leave management process, from request submission to manager approval and balance updates.	8
FR-006	View Payslip	Employees must be able to securely view and download their monthly payslips.	9
FR-007	Payroll Automation	The system must automatically calculate monthly payroll based on attendance, leaves, and other defined components.	9
FR-008	Expense Claim Submission	Employees must be able to submit expense reimbursement claims with digital receipt attachments.	8
FR-009	Expense Approval Workflow	The system must route expense claims to the appropriate managers for approval or rejection.	9
FR-010	Purchase Request Creation	Department heads must be able to create and submit Purchase Requests (PRs) for necessary goods or services.	9
FR-011	PR to PO Conversion	The system must allow the procurement team to convert an approved PR into a formal Purchase Order (PO).	5
FR-012	Vendor Management	The system must provide a central repository to manage a list of approved vendors and their details.	5
FR-013	Inventory Stock Viewing	Authorized users must be able to view real-time stock levels of all inventory items.	9
FR-014	Material Issuance	The system must allow inventory managers to record the issuance of materials against a project or department.	7
FR-015	Low Stock Alerts	The system must automatically trigger alerts when inventory levels fall below a specified threshold.	7

FR-016	HR Reporting	The system must be able to generate key HR reports, such as attendance, leave, and employee headcount.	7
FR-017	Finance Reporting	The system must be able to generate key financial reports, such as departmental expenses and budget utilization.	7
FR-018	User Role Administration	Administrators must be able to create, define, and assign user roles with specific permissions.	9
FR-019	Workflow Configuration	Administrators must be able to configure the multi-level approval workflows for leaves, expenses, and purchases.	8
FR-020	Automated Notifications	The system must send automated email and in-app notifications for key actions like approvals, rejections, and status changes.	9
NFR-001	Performance	All pages must load in under 3 seconds with 100 concurrent users.	9
NFR-002	Security	All sensitive user and financial data must be encrypted at rest and in transit.	9
NFR-003	Availability	The system must have 99.5% uptime during business hours.	8
NFR-004	Scalability	The architecture must support 50% user growth over two years without a major redesign.	9
NFR-005	Usability	A new user must be able to complete core tasks (e.g., leave request) in under 5 minutes.	7
NFR-006	Compatibility	The application must be fully compatible with the latest two versions of Chrome, Firefox, and Edge.	9
NFR-007	Reliability	All financial calculations (e.g., payroll) must have 100% accuracy.	9
NFR-008	Maintainability	Critical bug fixes must be deployable with zero downtime.	7
NFR-009	Data Integrity	An immutable audit trail must be maintained for all financial transactions and permission changes.	8
NFR-010	Recoverability	In case of failure, the system must be fully recoverable from the last daily backup (max 24hr data loss).	9

Document 4

Requirement Traceability Matrix

Req ID	Req Name	Req Description	Design	D1	T1	D2	T2	UAT
FR-001	User Authentication	Secure login with role-based access.	Yes	Yes	Yes	Yes	Yes	Yes
FR-002	Dashboard	Personalized dashboard with summaries.	Yes	Yes	Yes	Yes	Yes	Yes
FR-003	Employee Profile Mgmt	View and manage personal information.	Yes	Yes	Yes	Yes	Yes	Yes
FR-004	Attendance Tracking	Mark daily attendance and view history.	Yes	Yes	Yes	Yes	Yes	Yes
FR-005	Leave Request Workflow	Full leave management process.	Yes	Yes	Yes	Yes	Yes	Yes
FR-006	View Payslip	Securely view and download payslips.	Yes	Yes	Yes	Yes	Yes	Yes
FR-007	Payroll Automation	Automatic monthly payroll calculation.	Yes	Yes	Yes	Yes	Yes	Yes
FR-008	Expense Claim Submission	Submit expense claims with receipts.	Yes	Yes	Yes	Yes	Yes	Yes
FR-009	Expense Approval	Route expense claims for manager approval.	Yes	Yes	Yes	Yes	Yes	Yes
FR-010	Purchase Request	Create and submit Purchase Requests (PRs).	Yes	Yes	Yes	Yes	Yes	Yes
FR-011	PR to PO Conversion	Convert approved PRs to Purchase Orders.	Yes	Yes	Yes	Yes	Yes	Yes
FR-012	Vendor Management	Central repository to manage vendors.	Yes	Yes	Yes	Yes	Yes	Yes
FR-013	Inventory Stock Viewing	View real-time stock levels.	Yes	Yes	Yes	Yes	Yes	Yes
FR-014	Material Issuance	Record the issuance of materials.	Yes	Yes	Yes	Yes	Yes	Yes
FR-015	Low Stock Alerts	Automatic alerts for low inventory.	Yes	Yes	Yes	Yes	Yes	Yes
FR-016	HR Reporting	Generate key HR reports.	Yes	Yes	Yes	Yes	Yes	Yes
FR-017	Finance Reporting	Generate key financial reports.	Yes	Yes	Yes	Yes	Yes	Yes
FR-018	User Role Admin	Create, define, and assign user roles.	Yes	Yes	Yes	Yes	Yes	Yes
FR-019	Workflow Configuration	Configure approval workflows.	Yes	Yes	Yes	Yes	Yes	Yes
FR-020	Automated Notifications	Send automated system notifications.	Yes	Yes	Yes	Yes	Yes	Yes
NFR-001	Performance	All pages load in under 3 seconds.	Yes	Yes	Yes	Yes	Yes	Yes
NFR-002	Security	All sensitive data is encrypted.	Yes	Yes	Yes	Yes	Yes	Yes
NFR-003	Availability	System has 99.5% uptime during business hrs.	Yes	Yes	Yes	Yes	Yes	Yes

NFR-004	Scalability	Supports 50% user growth in two years.	Yes	Yes	Yes	Yes	Yes	Yes
NFR-005	Usability	New users complete tasks in <5 minutes.	Yes	Yes	Yes	Yes	Yes	Yes
NFR-006	Compatibility	Compatible with latest browser versions.	Yes	Yes	Yes	Yes	Yes	Yes
NFR-007	Reliability	All financial calculations are 100% accurate.	Yes	Yes	Yes	Yes	Yes	Yes
NFR-008	Maintainability	Critical bug fixes deploy with zero downtime.	Yes	Yes	Yes	Yes	Yes	Yes
NFR-009	Data Integrity	Immutable audit trail for all transactions.	Yes	Yes	Yes	Yes	Yes	Yes
NFR-010	Recoverability	System recoverable from last daily backup.	Yes	Yes	Yes	Yes	Yes	Yes

Document – 5
Business Requirement Document (BRD)
Project ID: XYM-01
Version:0.1
By: Iftikhaar Ali S D

Contents

1. Document Revisions.....	1
2. Approvals	1
3. RACI Chart	1
4. Introduction	2
4.1 Business Goals.....	2
4.2 Business Objectives.....	2
4.3 Business Rules	3
4.4 Background	4
4.5 Project Objective	4
4.6 Project Scope.....	4
5. Assumptions.....	5
6. Constraints	6
7.Risks	6
8. Business Process Overview	8
8.1. Legacy System (AS-IS).....	9
8.2. Proposed Recommendations (TO-BE)	14
9. Business Requirements	19
10. Appendices.....	21
10.1. List of Acronyms	21
10.2. Glossary of Terms	22
10.3. Related Documents.....	23

1. Document Revisions

Date	Version Number	Document Changes
28-09-2025	0.1	Initial Draft

2. Approvals

Role	Name	Title	Signature	Date
Project Sponsor	Dr. Nishanth Raja	CEO, XYMA Analytics	Nishanth	21-09-2025
Business Owner	Mr. Aswin Kumar	VP of Operations	Aswin	25-09-2025
Project Manager	Mr. Jamesh Babu	Project Manager	Jamesh	21-09-2025
System Architect	Ms. Saliha	Lead Architect	Saliha	25-09-2025
Development Lead	Mr. Stephan Antony	Lead Developer	Stephan	25-09-2025
User Experience Lead	Mr. Saravana Babu	Lead UX Designer	Saravana	25-09-2025
Quality Lead	Mr. Yuvanesh	QA Manager	Yuvanesh	21-09-2025
Content Lead	Mr. Sylvester	Technical Writer	Sylvester	25-09-2025

3. RACI Chart

The RACI chart identifies the persons who need to be contacted whenever changes are made to this document. RACI stands for responsible, accountable, consulted, and informed. These are the main codes that appear in a RACI chart, used here to describe the roles played by team members and stakeholders in the production of the BRD. They are adapted from charts used to assign roles and responsibilities during a project. (RACI Can be made for IT side [Project stakeholder] as mentioned above, apart from that Can also Be made for Client side [Business Stakeholder]).

The following describes the full list of codes used in the table:

Authorize (*)- Has ultimate signing authority for any changes to the document.

Responsible (R)- Responsible for creating this document.

Accountable (A)– Accountable for accuracy of his document (for example, the project manager)

Supports (S)– Provides supporting services in the production of this document

Consulted (C)– Provide input (such as an interviewee)

Informed (I)– Must be informed of any changes

Name	Position	*	R	A	C	I
Ms. Tharani	Senior Java Developer		✓			
Mr. Vignesh	Java Developer		✓			
Mr. Jude	Java Developer		✓			
Mr. Ramesh	Java Developer		✓			
Mr. Karthik	Java Developer		✓			
Mr. Mukesh	Delivery Head			✓		
Mr. Naveen	Project Manger			✓		
Mr. Iftikhaar	Business Analyst			✓		
Ms. Namrita	HR Manager				✓	
Mr. Manish	Electrical Manager				✓	
Mr. Shiva	Procurement Manager				✓	
Dr. Nishanth Raja	Project Sponsor	✓				
Mr. Guru Prasath	Financial Head					✓
Mr. Aswin M	Project Coordinator					✓

4. Introduction

4.1 Business Goals

The primary goal is to enhance organizational efficiency by unifying XYMA's separate departmental software into a single, integrated platform. This project will automate core business processes, improve data-driven decision-making, and create a scalable foundation for future growth.

Need:

- **Fragmented Systems:** Departments operate in silos, hindering data flow and collaboration.
- **Manual Processes:** Workflows like leave and purchase requests are manual, causing delays and errors.
- **Lack of Unified Data:** The absence of centralized data prevents comprehensive reporting and strategic analysis.

4.2 Business Objectives

To provide an IT solution that will:

- **Integrate Core Departments:** Develop a single, unified software platform that brings together all key XYMA Analytics departments, including HR, Finance, μTMapS, and PoRTS.
- **Deliver a Comprehensive HRMS:**
 - Automate attendance tracking and leave management.
 - Streamline payroll processing.
 - Manage employee records and onboarding/offboarding workflows.

- **Automate Financial and Procurement Processes:**
 - Digitize expense reimbursement and approval workflows.
 - Manage purchase requests, purchase orders, and vendor relations.
 - Provide tools for basic inventory management.
- **Enable Mobile Access:** Develop companion mobile applications for both Android and iOS to allow employees to perform key tasks (e.g., mark attendance, approve requests) on the go.
- **Provide Centralized Reporting:** Offer a robust reporting module that gives leadership a real-time, cross-functional view of business operations.

4.3 Business Rules

The following organizational policies and procedures will be enforced by the integrated platform:

- **Approval Hierarchies:** All leave requests, expense claims, and purchase requests must be approved by the employee's direct manager before processing.
- **Access Control:** User access to modules and data will be strictly limited based on their defined job role and departmental function.
- **Expense Submission:** All expense claims must be submitted within 30 days of the transaction and must be accompanied by a valid digital receipt.
- **Procurement Policy:** Purchase requests exceeding a pre-defined value (e.g., ₹50,000) will require an additional level of approval from the department head.
- **Mandatory System Usage:** The integrated platform will be the sole and mandatory system for all HR, finance, and procurement-related requests and workflows.
- **Attendance Policy:** Employees are required to mark their attendance daily. Any request to regularize attendance must be submitted within 48 hours.
- **Data Security:** All sensitive personal and financial data within the system is subject to XYMA Analytics' data protection and privacy policies.
- **Audit Trail:** All financial transactions, approvals, and changes to critical system data will be logged in an immutable audit trail for compliance and security purposes.

4.4 Background

This project was initiated to address significant operational inefficiencies at XYMA Analytics stemming from the use of separate, disconnected software across various departments, including HR, Finance, and technical teams like μ TMapS and PoRTS. The reliance on manual processes for key workflows resulted in delays, a higher risk of errors, and a lack of real-time, unified data for decision-making.

The expected benefit of developing this integrated platform is to streamline operations by creating a single, automated system. This will enhance inter-departmental collaboration, improve data accuracy, and provide leadership with a holistic view of the business, ultimately increasing productivity and supporting scalable growth.

4.5 Project Objective

The overall goal of this project is to develop a single, unified software platform that consolidates the currently separate functions of XYMA's key departments, including HR, Finance, and technical teams like μ TMapS.

The product will automate core business processes such as attendance, leave, expense claims, and procurement. This directly aligns with the business objective of increasing operational efficiency and reducing manual errors. By providing a centralized database and real-time reporting capabilities, the platform will enable data-driven decision-making. The system will be built with a scalable architecture, ensuring it can interact with other systems as needed and support the company's future growth.

4.6 Project Scope

The scope of this project is to develop and deploy a centralized software platform for XYMA Analytics. This platform will replace the current fragmented systems and manual workflows by integrating the core functions of the Human Resources, Finance, and Inventory departments into a single, cohesive application accessible via web and mobile.

4.6.1. In Scope Functionality

- **Human Resources (HR) Module:**
 - Attendance and leave management.
 - Employee information and profile management.
 - Automated payroll processing.
- **Finance & Procurement Module:**
 - Expense claim submission and approval workflows.
 - Purchase request and purchase order management.
- **Inventory Module:**
 - Basic stock level tracking and material issuance.

- **Core System Features:**
 - Role-based access control for users.
 - Reporting dashboards for key business metrics.
 - Automated email and in-app notifications.

4.6.2. Out Scope Functionality

- Integration with external, third-party systems (e.g., external accounting software).
- Advanced AI-powered predictive analytics or business intelligence modules.
- A dedicated Customer Relationship Management (CRM) module.
- A full-scale manufacturing or production floor control system.

5. Assumptions

The requirements and planning for this project are based on the following assumptions:

- **Stakeholder Availability:** Key stakeholders and subject matter experts from all XYMA departments (HR, Finance, etc.) will be available for workshops, reviews, and timely decision-making.
- **Defined Business Processes:** The current business rules for approvals, policies, and workflows are well-defined and will be provided to the project team.
- **Adequate Resources:** The allocated budget, timeline, and personnel are sufficient to deliver the functionality defined in the project scope.
- **Technical Infrastructure:** The necessary server hardware, network infrastructure, and required third-party software licenses will be procured and made available as per the project schedule.
- **Data for Migration:** Data from existing manual records and spreadsheets is accurate, complete, and in a format suitable for migration to the new platform.
- **User Training & Adoption:** XYMA Analytics will be responsible for developing training materials and ensuring user adoption of the new system post-launch.
- **Scope Stability:** The project scope will remain stable after the final sign-off on the requirement documents. Any changes will follow a formal change control process.

6. Constraints

The project will be executed under the following constraints:

- **Budget and Timeline:** The project must be delivered within the total allocated budget of ₹1,00,00,000 and the **12-month** timeline.
- **Technology Stack:** The development must adhere to XYMA Analytics' approved technology stack, including specific programming languages and database technologies.
- **Data Security Compliance:** The platform must comply with all relevant data privacy and security regulations, including data encryption standards.
- **Resource Availability:** The project is dependent on the availability of key personnel from both the project team and XYMA's internal departments.
- **No Legacy Integration:** The initial release will not include direct integration with existing legacy software systems. All data migration will be handled as a one-time process.
- **Infrastructure Limitations:** The platform's performance will be dependent on XYMA's existing network infrastructure and server capacity.
- **Scope Freeze:** The scope will be frozen after the sign-off of the Software Requirement Specification (SRS). Any further changes will require formal change request approval, which may impact the timeline and budget.

7. Risks

This project faces several risks that could affect its success. Key risks include **scope creep** from uncontrolled change requests, **project delays** due to the unavailability of key stakeholders for timely decisions, and **poor user adoption** if employees are resistant to the new platform. Furthermore, there is a risk of **data integrity issues** during migration from manual records and the potential for **budget or timeline overruns** if unforeseen complexities arise.

To handle these challenges, the project will employ several strategies:

- **Mitigate:** The impact of most risks will be reduced through proactive measures such as implementing a formal change control process, maintaining a clear communication plan, and conducting thorough user training and testing.
- **Avoid:** Some risks can be avoided by making firm architectural and scope decisions early in the project lifecycle.
- **Accept:** Low-impact, low-probability risks may be formally accepted after analysis.

All risks will be regularly tracked, and the appropriate strategy will be assigned by project leadership to minimize their impact on the project's outcome.

7.1 Technological Risks

- **Scalability Issues:** The chosen technology stack may not perform efficiently as the number of users and data volume grows over time.
- **Compatibility Challenges:** Ensuring a consistent and responsive user experience across a wide variety of web browsers, mobile devices, and operating systems is a complex technical hurdle.
- **Security Vulnerabilities:** As the platform will handle sensitive employee and financial data, it presents a target for cyber threats, and any security breach could have significant consequences.
- **Performance Degradation:** The platform may not meet the required performance benchmarks (e.g., page load times) under peak load conditions.

7.2 Skills Risks

- **Expertise Gap:** There is a risk of not finding or retaining personnel with the necessary combination of technical skills (in the specific platform technologies) and deep domain knowledge of XYMA's business processes.
- **Resource Availability:** The project's timeline is dependent on the consistent availability of key project team members and subject matter experts from various departments.
- **Training Overhead:** The existing team may require significant training on the new technologies, potentially impacting the project schedule.

7.3 Political Risks

- **Resistance to Change:** Departments or individuals comfortable with the existing manual processes may resist adopting the new, unified platform.
- **Shifting Priorities:** Changes in executive leadership or a shift in company strategy could lead to the project being deprioritized or its budget being reallocated.
- **Lack of Stakeholder Buy-in:** A failure to maintain consistent engagement and support from key stakeholders can stall progress, especially during the approval and testing phases.

7.4 Business Risks

- **Project Cancellation Impact:** If the project is canceled, the company will continue to suffer from the operational inefficiencies, data inaccuracies, and lack of visibility inherent in the current manual system.
- **Failure to Realize ROI:** The project may not deliver the expected return on investment if it fails to achieve the desired efficiency gains or if user adoption is low.
- **Competitive Disadvantage:** Persisting with outdated, inefficient processes could hinder the company's ability to adapt and compete effectively in the market.

7.5 Requirements Risks

- **Incomplete or Ambiguous Requirements:** There is a risk that complex, cross-departmental workflows (like payroll calculations or multi-level procurement approvals) are not fully or accurately captured.
- **Undocumented Processes:** Key "tribal knowledge" or unwritten rules in the current manual processes may be missed during the requirements gathering phase, leading to gaps in the final product.
- **Scope Creep:** Uncontrolled changes or additions to the requirements after the scope has been finalized can lead to timeline delays and budget overruns.

7.6 Other Risks

- **Vendor Dependencies:** The project's timeline is dependent on the timely delivery of necessary hardware or third-party software licenses from external vendors.
- **Data Migration Issues:** The quality of data from the existing manual records may be poor, leading to significant challenges in cleaning and migrating it to the new system.
- **Infrastructure Failure:** Unforeseen issues with the company's existing network or server infrastructure could disrupt the development, testing, or deployment of the platform.

8. Business Process Overview

The overall process for developing the XYMA Analytics Integrated Platform will follow a structured, phased approach. The project will begin with a **Requirements** phase, where all business needs from each department (HR, Finance, µTMapS, etc.) are gathered and analyzed. This will be followed by the **Design** phase, where the system architecture, database, and user interfaces are created. The **Development** phase will build out the core modules in a logical sequence. Each module will then undergo a rigorous **Testing** phase, including system testing and User Acceptance Testing (UAT), to ensure it meets the approved requirements. The project will conclude with the **Deployment** phase, which includes data migration and user training, followed by a post-launch support period to ensure a smooth transition.

8.1. Legacy System (AS-IS)

Step-by-step Process:

HR: Leave & Attendance Process

1. **Start:** An employee decides to request leave.
2. **Draft Request:** The employee manually fills out a paper leave form or drafts an email.
3. **Submit to Manager:** The form is physically submitted, or the email is sent to the direct manager.
4. **Manager Review:** The manager receives the paper/email and reviews the request. There is no central dashboard to see team availability.
5. **Manual Approval:** The manager signs the paper form or forwards the email with "Approved" to the HR department.
6. **HR Data Entry:** The HR administrator manually enters the approved leave data into a master Excel spreadsheet for leave tracking.
7. **Update Attendance Log:** The HR admin separately updates another spreadsheet used for monthly attendance records.
8. **Manual Payroll Calculation:** At month-end, the Finance team manually cross-references the attendance and leave spreadsheets to calculate salaries.
9. **End:** The process is complete, but records exist in multiple, disconnected files.

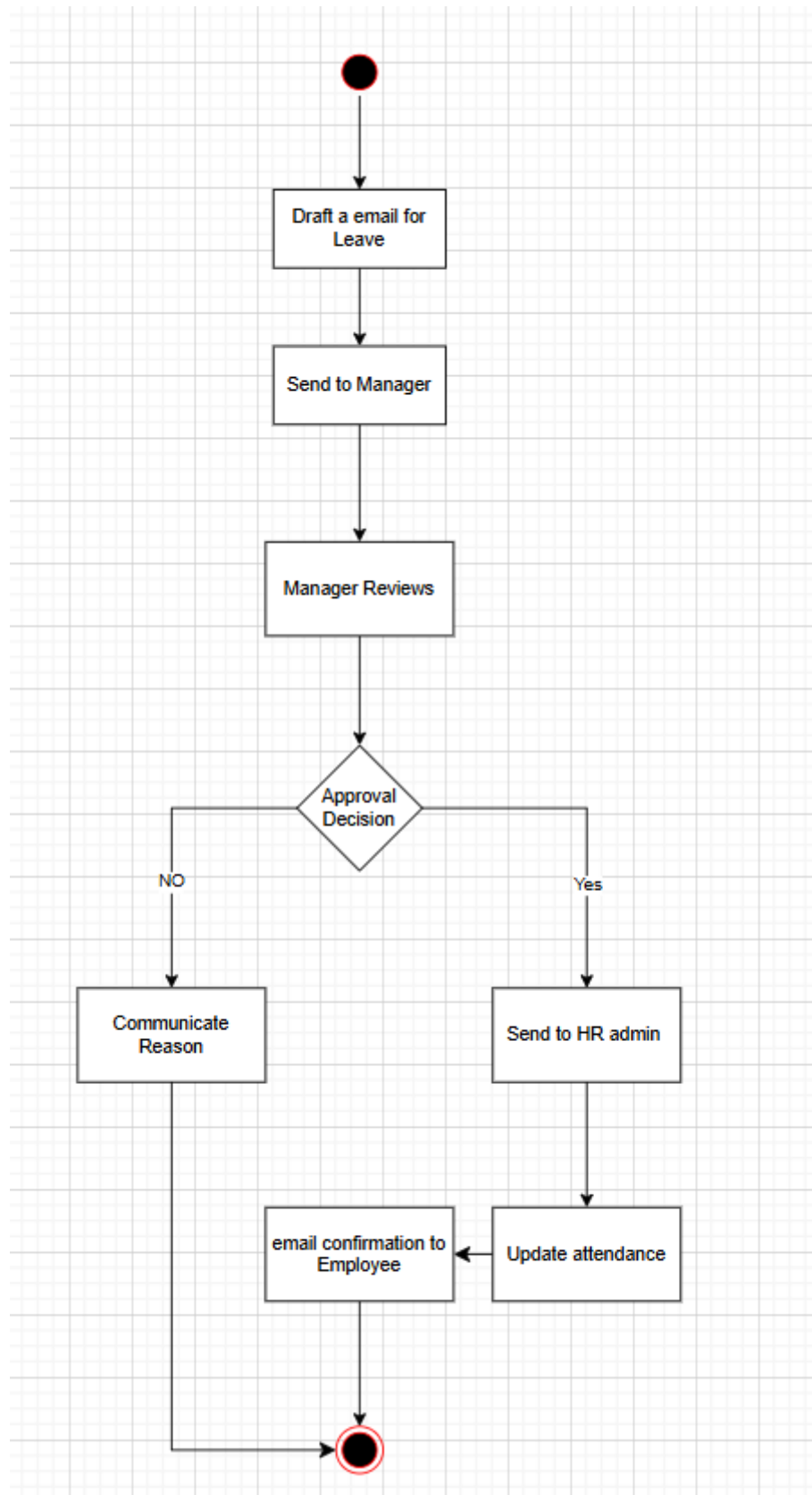
Finance: Expense Claim Process

1. **Start:** An employee incurs a business expense.
2. **Collect Physical Receipts:** The employee gathers all paper receipts.
3. **Fill Excel Form:** The employee fills out a standardized expense claim form in an Excel spreadsheet.
4. **Email Submission:** The employee emails the completed Excel form and scanned copies of the receipts to their manager.
5. **Manager Approval via Email:** The manager reviews the claim and forwards the email to the Finance department with their approval in the email body.
6. **Finance Manual Entry:** A Finance team member manually enters the claim details from the email into a master expense-tracking spreadsheet.
7. **Manual Payment:** The Finance team processes the reimbursement manually through the company's online banking portal.
8. **No Automated Notification:** The employee must manually check their bank account or follow up with Finance to confirm payment.
9. **End:** The record of the transaction exists in email chains and spreadsheets.

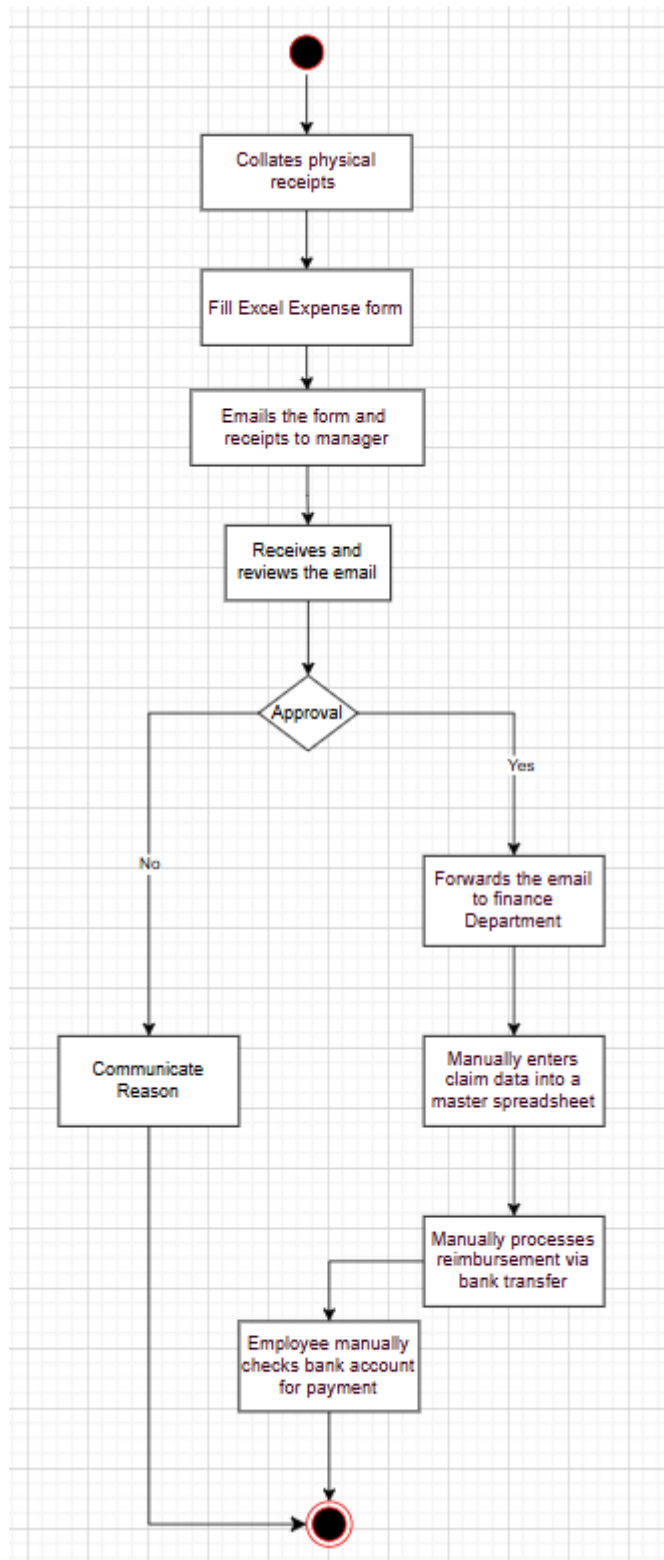
Procurement: Purchase Request Process

1. **Start:** A department user identifies a need for a purchase.
2. **Create Email Request:** The user drafts an email detailing the required item, quantity, and business justification.
3. **Manager Approval via Email:** The email is sent to the department manager, who approves it by forwarding the email chain.
4. **Forward to Procurement:** The manager forwards the approved email chain to the Procurement department.
5. **Manual Tracking:** The Procurement team manually logs the request details from the email into a central purchasing spreadsheet.
6. **Manual PO Creation:** A Purchase Order (PO) is manually created in a Word or Excel template.
7. **Email PO to Vendor:** The generated PO is saved as a PDF and emailed to the selected vendor.
8. **No Central Tracking:** There is no centralized system to track order status, delivery, or payment, requiring manual follow-ups with the vendor and Finance.
9. **End:** The purchase record is spread across emails and multiple spreadsheets.

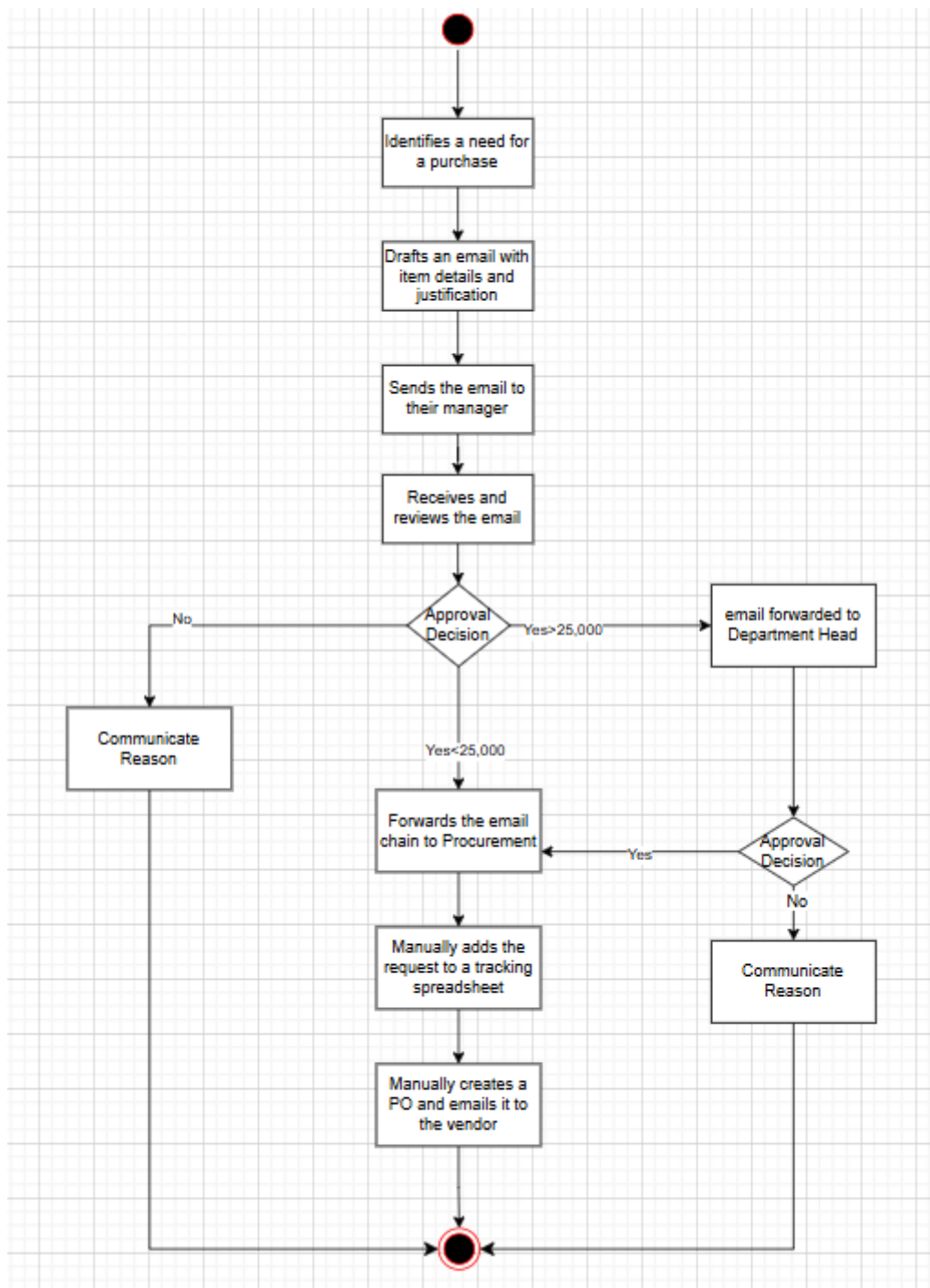
HR Department: Old Leave Request Process



Finance Department: Old Expense Claim Process



Procurement Department: Old Purchase Request Process



8.2. Proposed Recommendations (TO-BE)

Step-by-Step Process:

HR: Leave & Attendance Process

1. **Start:** An employee needs to request leave or mark attendance.
2. **Login:** The employee logs into the XYMA Integrated Platform via web or mobile.
3. **Navigate:** They access the "Leave & Attendance" module from their personalized dashboard.
4. **Submit Request:** The employee fills out a digital leave request form. The system displays their available leave balance in real-time.
5. **Automated Routing:** The system instantly sends the request to the employee's direct manager.
6. **Manager Notification:** The manager receives an automated email and an in-app notification about the pending request.
7. **Dashboard Review:** The manager reviews the request on their dashboard, which shows team availability and the employee's leave history.
8. **One-Click Approval:** The manager approves or rejects the request with a single click. A reason is required for rejection.
9. **Automated Updates:**
 - The employee receives an instant notification of the decision.
 - The system automatically deducts the leave from the employee's balance.
 - The attendance and payroll modules are automatically updated with the approved leave information.
10. **End:** The entire process is complete and fully documented in the system with a complete audit trail.

Finance: Expense Claim Process

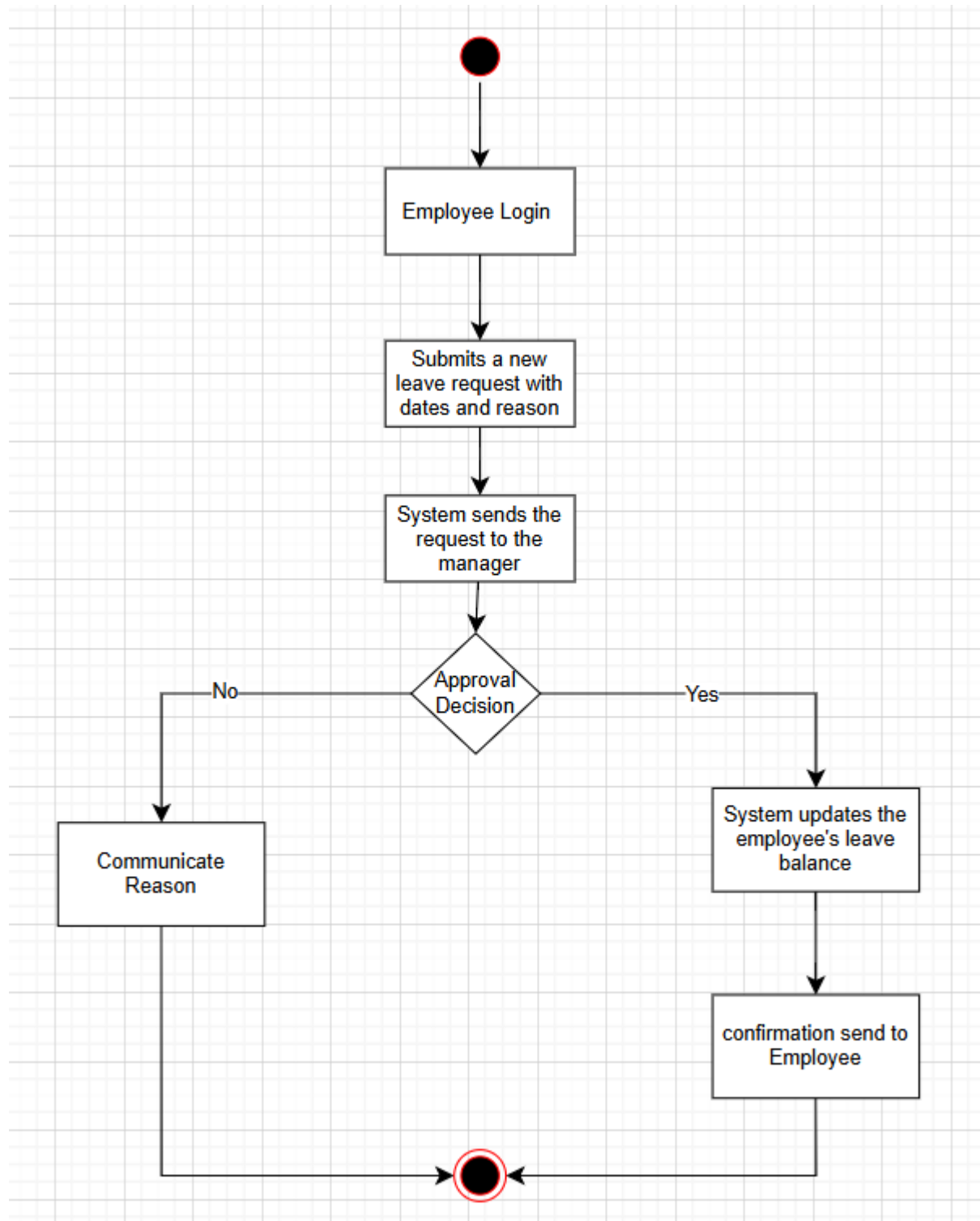
1. **Start:** An employee needs to claim a business expense.
2. **Login & Submit:** The employee logs into the platform, navigates to the "Expense Management" module, fills out a digital claim form, and uploads a photo or digital copy of the receipt.
3. **Automated Routing:** The system automatically forwards the claim to the designated manager for approval.
4. **Manager Review:** The manager reviews the digital claim and the attached receipt on their dashboard.
5. **Digital Approval:** The manager approves or rejects the claim.

6. **Automated Forwarding:** Upon approval, the claim is automatically moved to the Finance department's queue for processing.
7. **Finance Processing:** The Finance team reviews the approved claim in their dashboard and processes the payment. The system can be integrated with the banking portal for direct payments.
8. **Automated Notification:** Once the payment is processed, the system automatically notifies the employee that the claim has been paid.
9. **Real-time Reporting:** The expense is immediately reflected in the relevant financial reports and dashboards.
10. **End:** The process is completed without any manual data entry or physical paperwork.

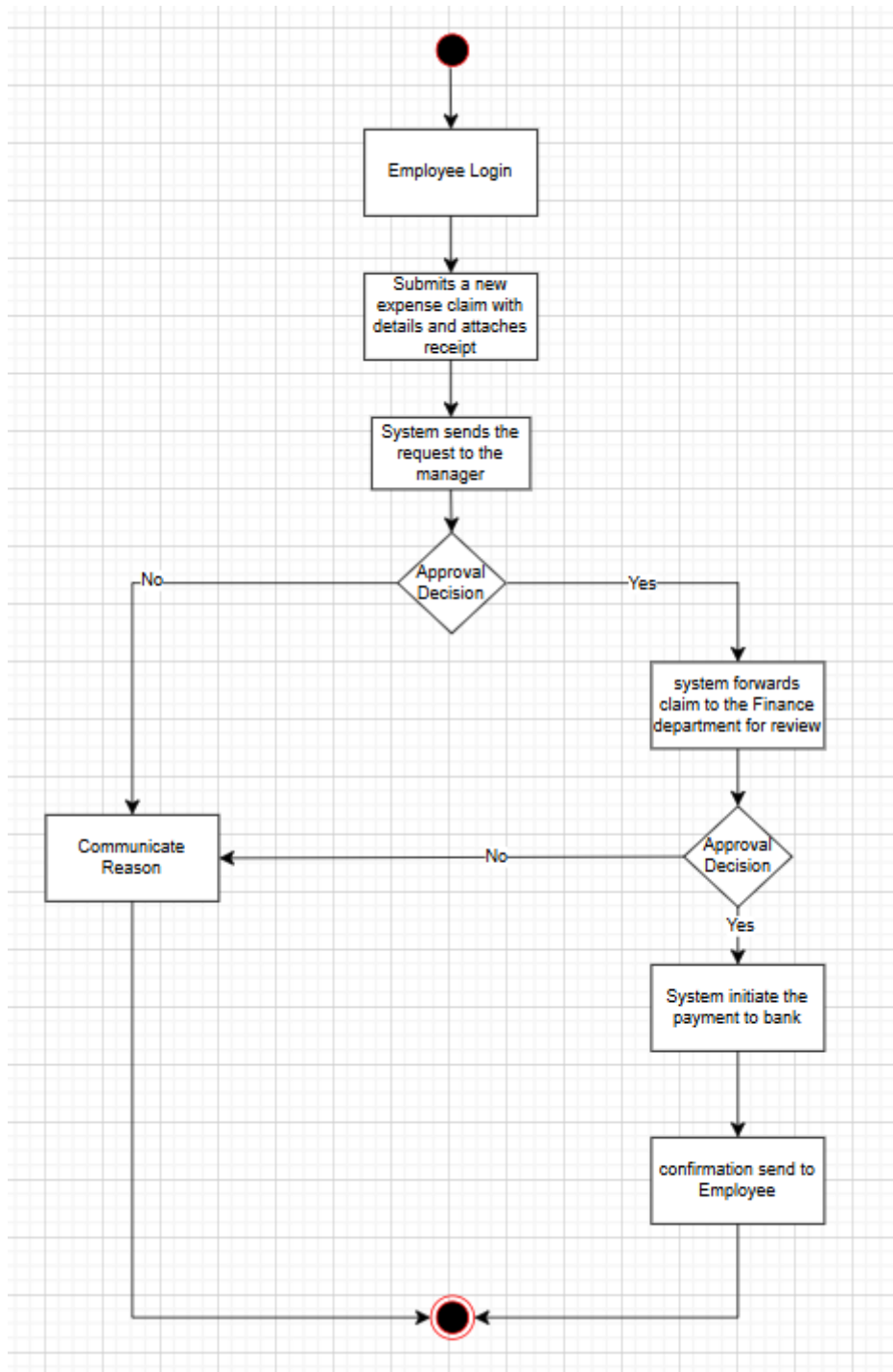
Procurement: Purchase Request Process

1. **Start:** A department user needs to purchase an item or service.
2. **Create Digital PR:** The user logs into the platform and creates a digital Purchase Request (PR), selecting items from a pre-approved catalog or entering new ones.
3. **Automated Workflow:** The system routes the PR through a pre-configured, multi-level approval workflow based on the request's value and department.
4. **Manager Approval:** Approvers receive notifications and can review and approve the PR directly within the platform.
5. **Procurement Queue:** Once fully approved, the PR automatically appears in the Procurement team's dashboard.
6. **One-Click PO Conversion:** The Procurement officer converts the PR into a Purchase Order (PO) with a single click. The system auto-populates vendor information.
7. **Automated PO Dispatch:** The system emails the PO directly to the vendor and tracks its status (e.g., "Sent," "Acknowledged").
8. **Integrated Tracking:** The system allows for tracking goods received and integrates with the Finance module for three-way invoice matching (PO, goods receipt, and invoice).
9. **End:** The entire procurement lifecycle is managed and tracked within one system, providing full visibility from request to payment.

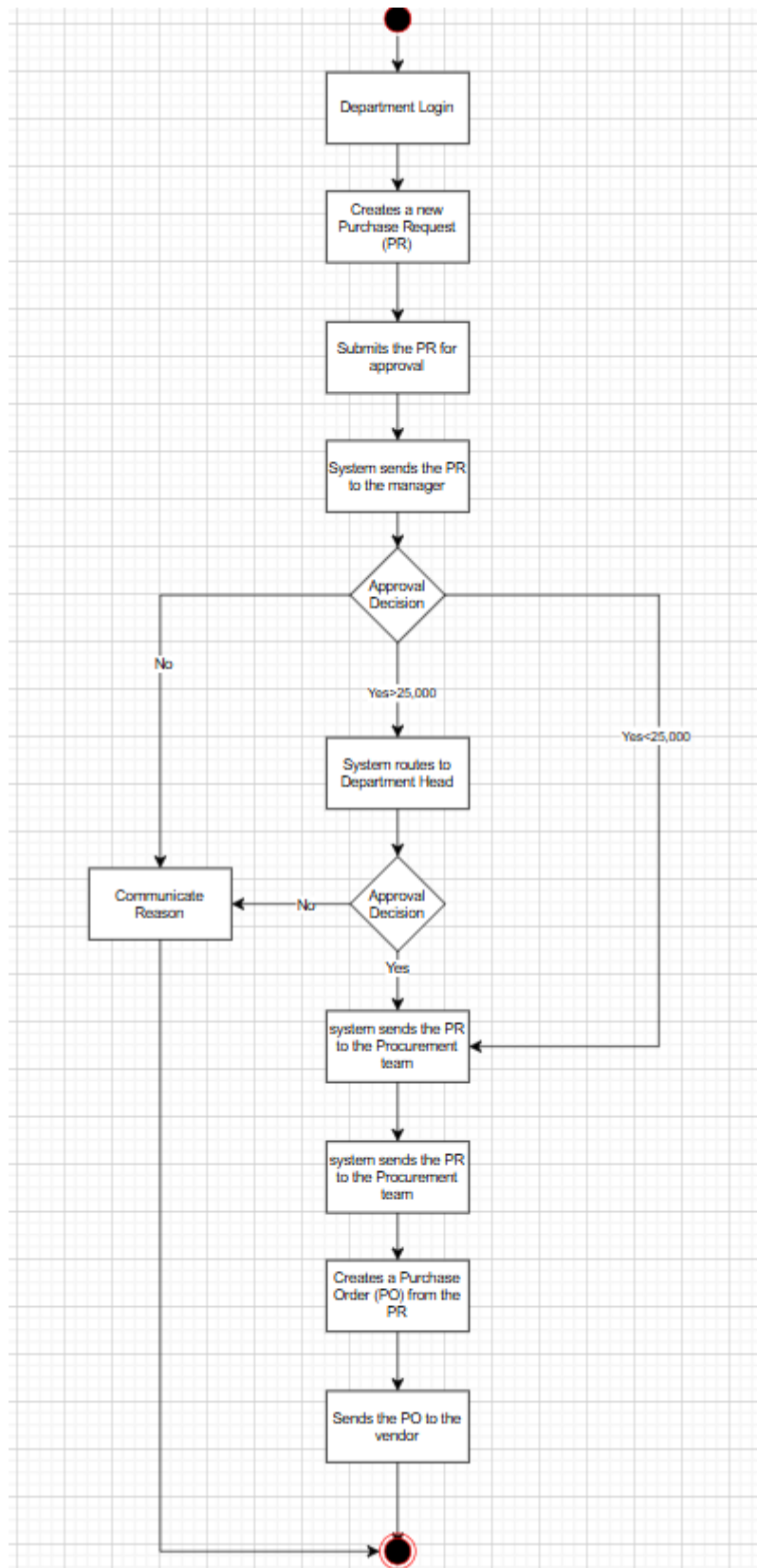
HR Department: Leave Request Process



Finance Department: Expense Claim Process



Procurement Department: Purchase Request Process



9. Business Requirements

1. The system must provide secure, role-based user authentication to ensure users can only access modules relevant to their job function.
2. Users must be able to view and edit their own profile information, such as contact details and password.
3. The platform must allow employees to mark their daily attendance (check-in and check-out).
4. Employees must be able to submit leave requests through the system, specifying dates and the reason for absence.
5. The system must automatically route leave requests to the employee's direct manager for approval or rejection.
6. Managers must receive notifications for pending leave requests and be able to approve or reject them within the platform.
7. The system must automatically update an employee's leave balance once a leave request is approved.
8. HR administrators must be able to configure company-wide holiday calendars and define different leave types (e.g., Sick Leave, Casual Leave).
9. The system should automatically calculate monthly payroll based on attendance records, approved leaves, and other defined salary components.
10. Employees must be able to securely view and download their monthly payslips in PDF format.
11. The system must allow employees to submit expense reimbursement claims.
12. Employees must be able to upload digital copies of receipts as supporting documents for their expense claims.
13. Expense claims must be automatically routed to the employee's manager for review and approval.
14. The Finance department must be able to process approved claims and mark them as "Paid" in the system.
15. The system must allow authorized users to create Purchase Requests (PRs) for goods or services.
16. The platform must support a multi-level approval workflow for PRs based on the total value of the request.
17. The Procurement team must be able to convert an approved PR into a Purchase Order (PO).
18. The system must provide a centralized database for managing an approved list of vendors and their contact information.
19. Inventory managers must be able to view real-time stock levels for all items.
20. The system must allow inventory managers to record the issuance of materials to specific projects or departments.

21. The platform must automatically generate low-stock alerts when inventory for an item falls below a pre-defined reorder level.
22. System administrators must be able to create, modify, and assign user roles and permissions.
23. The system must provide customizable dashboards for HR and Finance that display key metrics and summaries.
24. The platform must be able to generate and export reports for attendance, expenses, and procurement in formats like PDF and Excel.
25. The system must send automated email and in-app notifications for key events, such as pending approvals and status changes.
26. All critical financial transactions and changes to user permissions must be recorded in an immutable audit trail.
27. The system must be accessible through modern web browsers and have a responsive design that works on desktops, tablets, and mobile devices.
28. The platform's architecture must be scalable to handle a 50% increase in users over the next two years without performance degradation.
29. All sensitive employee and financial data must be encrypted both at rest (in the database) and in transit (over the network).
30. The system must ensure that all page's load in under 3 seconds to provide a smooth user experience.
31. HR administrators must be able to manage the entire employee lifecycle, from onboarding new hires to processing offboarding procedures.
32. The system should allow managers to view a consolidated calendar showing the leave and attendance of their team members.
33. Finance administrators must have the ability to configure different expense categories and set spending limits.

10. Appendices

10.1. List of Acronyms

Acronym	Full Form
API	Application Programming Interface
AS-IS	The current state of a process or system
BI	Business Intelligence
CRM	Customer Relationship Management
ERP	Enterprise Resource Planning
FR	Functional Requirement
GUI	Graphical User Interface
HR	Human Resources
HRMS	Human Resource Management System
IT	Information Technology
KPI	Key Performance Indicator
NFR	Non-Functional Requirement
PO	Purchase Order
PR	Purchase Request
QA	Quality Assurance
RTM	Requirements Traceability Matrix
SLA	Service Level Agreement
SRS	Software Requirement Specification
TO-BE	The future, desired state of a process or system
UAT	User Acceptance Testing
UX	User Experience

10.2. Glossary of Terms

Term	Definition
Approval Workflow	A pre-defined, automated sequence of steps that a request (e.g., for leave, expense, or purchase) must pass through for review and approval.
AS-IS Process	A term used to describe the current, existing state of a business process before any changes or improvements are implemented.
Audit Trail	A chronological and unalterable record of all activities and changes made within the system, used for security, compliance, and accountability.
Dashboard	A graphical user interface that provides a centralized, at-a-glance view of key performance indicators and data relevant to a particular user or objective.
HRMS	Human Resource Management System; a software application that combines and automates many HR functions, such as payroll, benefits, and attendance.
Legacy System	An outdated method, technology, or software application that continues to be used by an organization. In this case, it refers to the manual, spreadsheet-based processes.
Module	A distinct and self-contained component of the software platform that handles a specific business function (e.g., Leave Management Module, Finance Module).
Role-Based Access Control	A security method that restricts system access to authorized users based on their specific job roles and responsibilities within the organization.
Scalability	The ability of the software platform to handle a growing amount of work or its potential to be enlarged in order to accommodate that growth.
TO-BE Process	A term used to describe the future, improved state of a business process after proposed changes have been implemented.
UAT	User Acceptance Testing; the final phase of testing where end-users test the software to ensure it meets the business requirements in a real-world scenario.
μTMapS & PoRTS	These are specialized technical departments or systems within XYMA Analytics. μTMapS refers to "Micro-Temperature Mapping System," and PoRTS likely refers to another proprietary technical system.

10.3. Related Documents

The following documents are related to and support the Business Requirements Document (BRD) for the XYMA Analytics Integrated Platform project. These documents provide additional detail and context for the project's planning, execution, and management.

- **Project Charter:** The official document that formally authorized the project, outlining its high-level objectives, scope, stakeholders, and the project manager's authority.
- **Software Requirement Specification (SRS):** A detailed document that will be developed based on these business requirements. It will specify the precise functional and non-functional requirements, including system performance, security, and usability criteria.
- **AS-IS and TO-BE Process Flow Diagrams:** Visual diagrams that map out the current (AS-IS) manual workflows and the proposed (TO-BE) automated workflows that will be implemented in the new system.
- **Use Case Specifications:** Detailed descriptions of how users will interact with the system to achieve specific goals, including pre-conditions, main flow, and alternative flows for each use case.
- **Requirements Traceability Matrix (RTM):** A matrix used to track each requirement from its origin through to its implementation and testing, ensuring that all business needs are met.
- **Project Plan:** A comprehensive document detailing the project's schedule, key milestones, resource allocation, and dependencies.
- **Risk Register:** A live document that logs all identified project risks, their potential impact and likelihood, and the mitigation strategies planned to address them.
- **Data Migration Plan:** A detailed plan outlining the strategy and steps for extracting data from the existing legacy spreadsheets and manual records, cleaning it, and successfully migrating it to the new platform.
- **Test Plan:** A document that describes the scope, approach, resources, and schedule of all intended testing activities, including unit testing, system integration testing, and User Acceptance Testing (UAT).