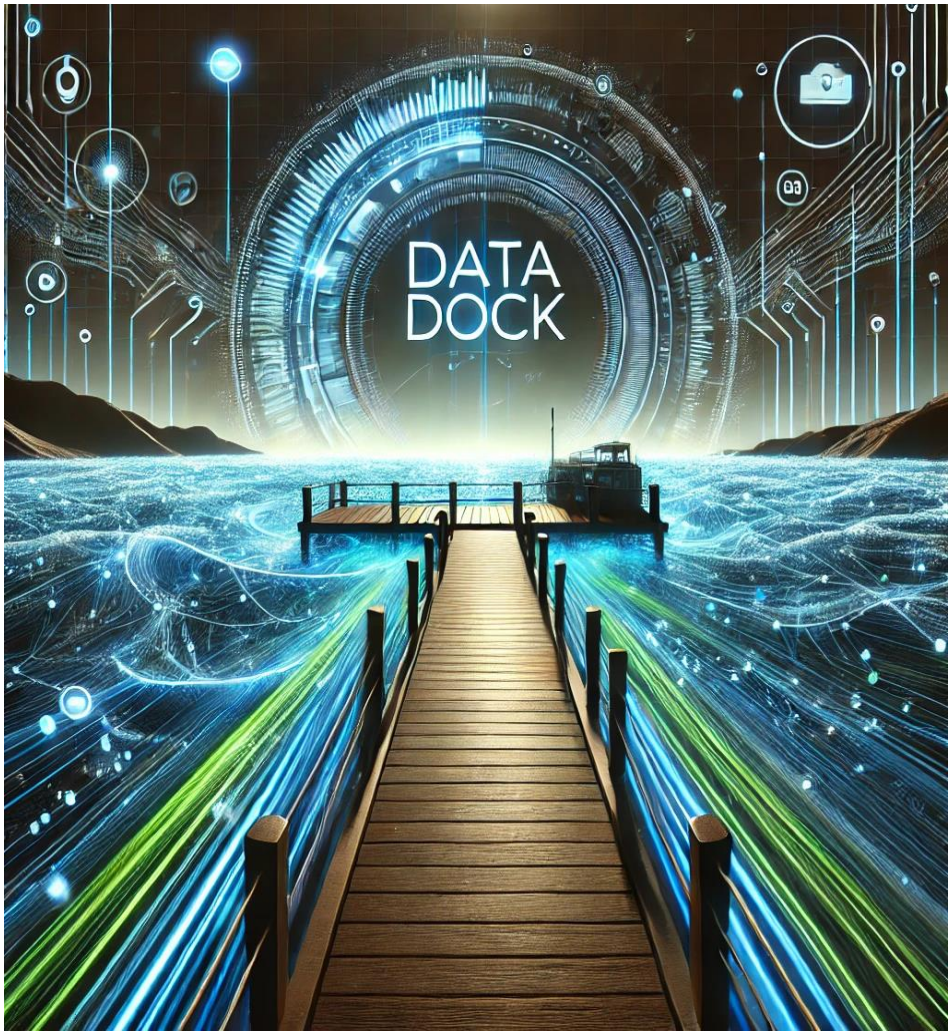
November 2024

Project Plan: Gemorskos

Executed by Team IT-1D



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Chapter 1: Background Information

1.1 Client Overview

DataDock is a project initiated by Gemorskos, a news agency that has been facing significant organizational inefficiencies due to outdated file-sharing and communication systems. Gemorskos employs a diverse team of editors, photographers, and reporters who need a fast, secure, and efficient way to exchange information. However, the current system is decentralized, which has led to delays, errors, and increased operational costs due to the manual transfer of files. These challenges have resulted in slow workflows, reduced productivity, and a lack of effective collaboration among team members.

1.2 Security Concerns

Security is a critical concern for Gemorskos, as they have previously faced threats that have compromised sensitive data. Given the nature of their work and the volume of content they manage, a secure system is essential to protect their information from potential breaches. The existing messaging and file-sharing systems do not meet the necessary security standards, further emphasizing the need for a more robust solution.

1.3 Proposed Solution: DataDock

The new **DataDock** system aims to address these issues by providing a centralized platform for communication, file sharing, and task management. With this new solution, Gemorskos will be able to streamline its operations and improve its overall efficiency. The system will feature role-based access control, ensuring that users have the appropriate level of access based on their responsibilities. This means owners and administrators will have full access to the system, while internal employees can

manage topics and archived files, and freelancers will only have access to specific tasks assigned to them.

1.4 Web-Based Access

The platform will be accessible through a secure web interface, ensuring that both local and remote users can seamlessly interact with the system. By addressing these critical pain points, **DataDock** aims to enhance efficiency, strengthen data security, and improve workflow management at Gemorskos, enabling the company to continue growing and responding to the demands of the modern media landscape.

Chapter 2: Project Outcomes

2.1 Purpose of the Project

The purpose of this project is to create a system for Gemorskos, a news agency with a number of employees, including editors, photographers, and reporters. Their main focus is on improving the organization, communication, and security of their systems.

2.2 Smart Objectives

- **Specific**: Creating a system with different levels of access for users based on their roles, where the owner has full access, while others have limited and specific access based on their role. Enhancing a centralized communication and file-sharing infrastructure for staff. Improving the security system to meet client standards.
- **Measurable**: The system would be launched for three main purposes (file management, enhanced security systems, and controlled access to files) within a specific budget (mentioned in Chapter 9).

- **Achievable**: The project will be done by a small team experienced in making systems and infrastructures for small companies.
- **Relevant**: The system will address the client's needs, enhance the security level, improve communication and file management, and control staff access to different system levels.
- **Time-bound**: The project will be completed within 8 weeks of the start date.

2.3 Sub-objectives

- **Creation**: Implementing an infrastructure with necessary features (centralized infrastructure, role-based access control, high security, document management, task management).
- **Functionality**: The system will be designed to be highly informative and equipped with all necessary features outlined in the sub-objectives, with built-in scalability for future customer updates.
- **User Experience**: Easily accessible via a web page across devices, including local desktops and remote users.

2.4 Result of the Project

A fully functional system to meet the client's needs.

Requirements

1. **Inefficient Communication and File Management:**
   - Currently lacking a centralized communication and file-sharing infrastructure.
   - Manual file transfers are time-consuming and prone to errors.
   - Need for a solution that organizes files and communication by topics, allowing easy retrieval and categorization.
2. **Security Concerns:**
   - Current system does not meet client standards.
   - The agency has previously been targeted by malicious actors, underscoring the need for a highly secure system.
3. **Access Management and User Levels:**
   - The client requires different levels of access based on role.
     - ➢ Administrator
       - **Owner**: Complete access to all data and all features.
       - **2 Admins**: Similar access as the owner, with additional access to handle system configuration.
     - ➢ Internal Employees
       - **3 Editors:** Full access to all topics and shared files.
       - **1 Web Content Designer:** Same access as other internal employees but operates in a different work

environment with additional access privileges tailored to web content management.

- **10 Journalists:** Access to all topics and shared files, primarily for researching and creating content.
- **5 Photographers:** Access to reading all shared files and topics and access to writing and deleting their assignments, focusing on media content.

➢ **Freelancer**: Limited access to only assignment related files.

4. File Types and Document Handling:

- Most common file types include Word documents, PDFs, images, and videos.
- System should be appropriate for sharing, retrieving, and editing these files.
- A workspace for document collaboration and editing is needed.

5. User Directory and Task Management:

- The client demands an employee directory to view current employee status and assignments.
- The client requests a system capable of managing the employee directory to hire, modify, or dismiss employees.
- Ability to assign tasks to specific employees and monitor progress.

6. Access Points and Remote Connectivity:

- The client has a mixture of local and remote users, so the solution should support both local and remote access.

2.5 Relevance to Objectives and Problem Setting

The project results directly address the need to create a safe, secure, and fully functional system that enables file sharing and editing while providing the owner with a comprehensive overview of progress.

Chapter 3: Project Activities

This chapter provides an overview of the key activities that will be undertaken to deliver the database solution for the client. Each step is outlined to ensure transparency and a shared understanding of what is involved to ensure the project is successful.

3.1 Planning Phase

Initial Meeting with Client

- Meet with the client to understand their needs and gather detailed information on current challenges.

- Establish project goals, deliverables, and set expectations for maintaining contact throughout the project.

Project Plan Development

- Create a draft project plan based on initial discussions to map out the approach.

- Schedule a meeting with the client to review the plan, ensure alignment with their expectations, and make any necessary adjustments.

Requirement Analysis and System Design

- Carry out a detailed analysis of the client's requirements, focusing on key pain points such as communication issues, file management issues, security concerns, and infrastructure needs.

- Draft a system design that outlines key features such as centralized communication, employee directory, role-based access control, and improved file management.

- Identify hardware and infrastructure requirements necessary to support the proposed solution.

3.2 Hardware Acquisition and Setup Phase

Hardware Acquisition and Setup

- Hardware Needs Assessment: Determine the specific hardware required for the system, including servers, networking equipment, and peripherals.

- Procurement: Acquire the identified hardware, ensuring all hardware meets the system requirements.

- Setup and Configuration: Install and configure the hardware infrastructure, including server setup, network configuration, and any necessary firmware or software updates.

- Environment Testing: Perform initial tests to confirm the hardware is operational and ready for system integration.

3.3 Development Phase

System Development

- Centralized Communication and File Sharing: Develop features to centralize file storage and improve ease of communication and collaboration, making everything accessible in one place.

- Security Implementation: Implement a secure messaging system with encryption to ensure data protection.

- Role-Based Access Control: Create different user roles (Owner, Admin, Employee, Freelancer) to define access levels and manage visibility of sensitive information.

- Document Management: Integrate support for different file types including PDFs, images, videos, and Word documents and create a shared workspace for users.

- User Directory and Task Management: Develop an employee directory to track roles, current tasks, and overall status.

Integration and Access Configuration

- Integrate the software with the configured hardware infrastructure to ensure intended operation.

- Configure system access for both local users and remote employees to ensure functionality across different locations.

3.4 Testing Phase

Testing and Quality Assurance

- Conduct thorough testing of all features including communication tools, file sharing, security, user roles, and hardware performance to ensure everything works as intended.

- Validate encryption, verify that user permissions are correctly applied, and confirm hardware stability under different conditions.

3.5 Deployment Phase

Deployment

- Deploy the solution in the final environment, including hardware setup and final software setup.

- Provide documentation to the client on system use, including file sharing, task management, and role-based permissions.

3.6 Post-Deployment Phase

Post-Deployment Support

- Monitor the solution after deployment to address any issues and ensure correct operation.

- Gather client feedback to identify areas for improvement.

Chapter 4: Project Boundaries

4.1 Scope

This objective of this project is to make an infrastructure that will connect article writers in a web-based environment. This project will include multiple features mentioned in chapter 1. This project will be a web-based infrastructure, this will not be a mobile app.

4.2 Schedule

The project timeline is set for 8 weeks, ensuring that the creation and delivery of the infrastructure will be on time and within the goals of the stakeholders.

4.3 Quality

The infrastructure should have high-quality standards regarding the security of the infrastructure and the accessibility of it. It should at all times be usable on a different set of devices and it needs to have support for common file types as these types have to be shared with different employees of the company.

4.4 Risk Management

To maximize the successful development of the infrastructure, potential risks will be identified and handled early so that these potential risks cannot hinder the development. This includes addressing development difficulties ensuring that project deadlines and goals will be met.

4.5 Documentation

Extensive documentation will be ensured during the project including project plans, testing outcomes and meeting notes, providing a detailed overview of the project that will support future development.

Chapter 5: Intermediate outcomes

The project's phases are described in this section, along with the main outputs that must be finished in each time frame. These milestones are structured to keep the project aligned with its goals and to ensure that all objectives are steadily achieved.

5.2 Interview Results with the client

The team will organize weekly meetings with a client throughout the project, each of them will be important in developing working relationships. These meetings will be essential for the project because the meeting will help develop open communication, check the project’s process, receive feedback, discuss any issues

regarding the project, and ensure that everything goes as planned.

Project Plan

On 21/12/2024 the team develops and submits the initial project plan for review by key stakeholders. This document will detail the project's scope, timeline, and resource distribution.

Improved Project Plan

On 02/12/2024 the team submits the improved project plan in order to make sure the project plan is in line with the client's objectives, and make necessary revisions based on stakeholder input.

Network Drawing

The team executes a networking drawing which is a comprehensive visual layout of the infrastructure to be set up. This way, the client has a clear overview of all steps within the project. This will be handed in on 29/12/2024.

Functional Design

By 02/12/2024 the team would have agreed on the functional design of the product. It will include a blueprint that outlines what the system is supposed to do and defines the requirements and specifications for implementation.

Infrastructure Setup and Work Instructions:

On 17/01/2025 the team will deliver the complete infrastructure, including components like Windows Server (Active Directory, DHCP), Ubuntu Server (web, file, database), clients, firewalls, and web applications.

Final Delivery:

- Product presentation: Showcase the final product, review the project results, and address any feedback at a project presentation meeting with the client.
- Project closure: on 24/01/25 the team will complete all project documentation and hand over all deliverables, making sure the client is ready to handle and use the desired product which contains all the client's wishes and requirements.

Now all the intermediate outcomes are described in order to ensure clear alignment with project goals during the 8 weeks with a specific deadline for each assignment and check a basis for evaluating the success of each phase before proceeding to the next stage.

Chapter 6: Quality control

To ensure that everything remains of a high level of quality within the development of the database, a variety of checks, internal meetings and client feedback sessions will be carried out.

Assurance of Quality for Project Results

The database will be developed according to the news agency's requirements. Quality assurances will be ensured for the centralized infrastructure, role-based access control, security, and document management.

Assurance of Quality for Intermediate Results

Quality checks will be done at each phase of the development of the database, the build and workability will be verified before moving onto the next phase, thus ensuring each phase is held to a high degree of quality.

Controls Implemented to monitor quality

- Weekly group meetings ensure the standard of development is up to par with previously discussed levels.
- Weekly feedback sessions with the client to verify if the project's quality is to their expectations.
- Internal Reviews: Before sharing any draft or final product with the client, the team will conduct internal reviews to verify that all quality requirements are met.

Standards to Control Quality

Industry standards will be followed throughout the duration of this project. The project will use ubuntu as a server.

Methods and Techniques

- Client feedback on what to improve within the database.
- Performance testing will be done to assess how smoothly, fast, and reliably everything is working.
- Database testing to gauge if everything is running as expected.

- User Feedback Analysis: Surveys, feedback forms, and user comments will be used to gather insights into the overall User Experience, guiding continuous improvement.

Delivery of Projects

- Network drawings will be presented to get an overview of how the database would look like.
- The final project will be provided when every condition and quality check has been satisfactorily met.

Chapter 7: Project Organization

This section of project planning outlines the organization and provides an overview of the project's budget, schedule, personnel, and equipment. It assists the project team in maximizing resources, providing clear communication about each other's duties and responsibilities, reducing potential obstacles, and serving as a tool to connect the strategy and vision among members involved in the project.

7.1 Table

Name	Contact	Roles
Amir Ranjbar Maki	amir.ranjbar.maki@student.nhlstenden.com	Team Leader
Frederic Cahn Von Seelen	frederic.cahn.von.seelen@student.nhlstenden.com	Co-Leader

Victoria Iaşcevschi	victoria.iascevschi@student.nhlstenden.com	Secretary & Quality Manager
Anton Reunovs	anton.reunovs@student.nhlstenden.com	Expert(experienced)
Joey Harms	joey.harms@student.nhlstenden.com	Expert(experienced)
Sean Mushava	sean.mushava@student.nhlstenden.com	Contact Manager

7.2 Functions and responsibilities within the team

Project Manager: Amir Ranjbar

Contact info : amir.ranjbar.maki@student.nhlstenden.com

Ensures the team is on the same path, is working together on the same project and progress altogether by providing feedback to the team. This way he can ensure a better outcome and successful project results. The project manager also Responsible for planning, executing, and overseeing the successful completion of projects within the team.

Co-Leader: Frederic Cahn Von Seelen

Contact info :
frederic.cahn.von.seelen@student.nhlstenden.com

Co-Leader in planning and executing projects while coordinating and managing project tasks. The Co-Leader also keeps the stakeholders informed, monitors the progress of the project and handles any predicament that shows up and in case of absence of leader he will replace him and take the charge of leading the group.

Secretary & Quality Manager: Victoria Iaşcevschi

Contact info: victoria.iascevschi@student.nhlstenden.com

This member is responsible for maintaining records and managing documents.

Provides guidance to team members during the project operating procedures, processes, and practices. Supports project management by handling tasks such as travel arrangements, calendar management, and expenses. Handles clerical duties on a team, including tracking expenses, updating progress reports, and filling paperwork related to the project. also Defines the quality standard while monitoring and guaranteeing the same meets its standard.

Experts: Joey Harms / Anton Reunovs

Contact info: joey.harms@student.nhlstenden.com / anton.reunovs@student.nhlstenden.com

The members of this role are specialized in a certain field. The experts bring extensive experience and specialized knowledge in the field, guidance to ensure the project meets its technical goals. The term "expert" emphasizes their experience in the field of this project.

Contact Manager: Sean Mushava

Contact info: sean.mushava@student.nhlstenden.com

His main responsibility is contacting with client and setting up the meeting and also informing everybody in the group with new received information from the client.

7.3 Team Availability

All team members should be available on these times:

- Mornings: 9 AM - 12:30 PM
- Break: 1 PM - 2:30 PM
- Afternoons: 2:45 PM - 5:30 PM
- Evenings: until 8 PM
- Saturday: 2:30 PM - 5 PM
- Sunday: Not Available

7.4 Environmental Analysis

Internal strengths and weaknesses:

- Strengths
  - Strong bonds between team members that provide good teamwork and communication.
  - Previous experience in networking will provide a strong basis on which this project can build.
  - Strong problem-solving potential will create a great foundation for problems that might occur in this project.
- Weaknesses
  - Possible miscommunications with client.

External Opportunities and Threats:

- Opportunities
  - The expansion of modern-day news sites creates a new expansion opportunity for Gemorskos with a new infrastructure that provides clear communication.

- The potential for quicker news documents through the infrastructure will create an easier exchange of news documents with employees and publishers.

- Weaknesses
  - Strong competition from other news sources with strong infrastructures will create a tricky start for the company.
  - Possible data leaks should always be prevented with this new infrastructure and the sharing of sensitive data outside of the company should be avoided.

Discussions with client

The team held a meeting with the client discussing the basic needs the infrastructure will need, such as a basic login system, an overview for the CEO and administrator of the company and a built-in text editor. The infrastructure should also be compatible with different devices with access to the infrastructure remotely and local access points.

Collaboration and Scheduling

The team will operate on a schedule to ensure that project deadlines will be met. The team will communicate through Microsoft Teams, Discord and Telegram. All files made will be stored remotely to ensure the safety of the files.

Chapter 8: Planning

8.1 Estimation of Time and Resources

Timeline Overview

The project spans 8 weeks, starting from 11 November 2024, and concluding on January 17, 2025. Each week is structured to accomplish specific goals and milestones to ensure that the time for the project is divided accordingly and all assignments meet the deadline.

Resource Allocation

Each member has an assigned role with specific responsibilities. In addition, we have a dynamic resource allocation system that enables team members to do tasks outside the current milestone to speed up the work of other team members.

8.2 Activity Dependencies

Dependencies

The project will be completed using a linear roadmap. This means each week's milestone must be fully completed before the project can move on to the next milestone. Each milestone will be split into more subtasks, which will be assigned equally to all team members to work on simultaneously.

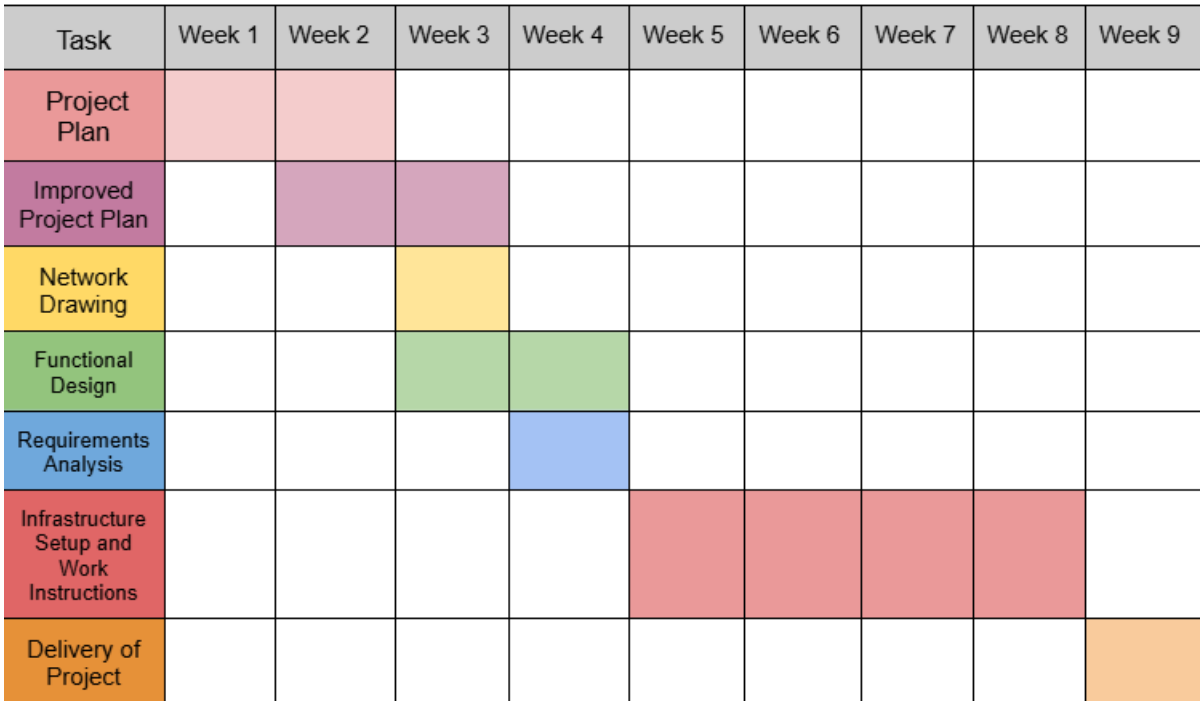
Moreover, all team members' personal information and their roles can be found in Chapter 7 Project Organization.

8.3 Overview of Deliverables

Step	Date	Products

1	22/11/2024	Project Plan
2	02/12/2024	Improved Project Plan
3	29/11/2024	Network Drawing
4	02/12/2024	Functional Design
5	06/12/2024	Requirements Analysis
6	17/01/2025	Infrastructure Setup and Work Instructions
7	24/01/25	Delivery of Project

8.4 Lane Plan Representation of Core Project Tasks:



Chapter 9: Costs and Benefits

This chapter outlines the estimated costs and expected benefits associated with delivering the proposed database solution. The estimates are based on project requirements and industry benchmarks.

9.1 Costs

Hardware and Infrastructure

- Servers: €10,000 – €20,000 (2 mid-range servers for redundancy)

- Networking Equipment: €2,000 – €5,000 (routers, switches, and cabling)

- Peripherals: €1,000 – €3,000 (backup systems, UPS)

- Total Hardware Costs: €13,000 – €28,000

Software Development

- System Design and Requirement Analysis: €5,000 – €7,000

- Development and Testing: €15,000 – €20,000

- Integration with Hardware: €3,000 – €5,000

- Total Development Costs: €23,000 – €32,000

Deployment and Training

- System Deployment: €2,000 – €3,000

- User Documentation: €1,000 – €2,000

- Employee Training: €2,000 – €4,000

- Total Deployment Costs: €5,000 – €9,000

Operational Costs (Annual)

- Hosting and Maintenance: €5,000 – €10,000/year

9.2 Benefits

Efficiency Gains

- Centralized communication and file management save an estimated 20% of employee time, translating to ~€30,000/year in operational savings (based on 50 employees earning €25/hour).

Enhanced Security

- Role-based access control and encryption reduce the risk of data breaches and similar security events, saving up to an estimated €10,000 annually in avoided incident costs.

Improved Organization

- Categorized file management and task tracking improves workflows, resulting in an estimated 30% reduction in task related inefficiencies.

Scalability

- Modular design eliminates the need for major system overhauls in the future, saving ~€20,000 in long-term redevelopment costs.

9.3 Assumptions

- The client will actively participate in all project phases, providing timely feedback.

- Employees will receive training and adopt the new system as intended.

- Hardware will meet system requirements without significant upgrades for at least four years.

9.4 Conclusion

- One-Time Costs: €38,000 – €59,000

- Annual Costs: €5,000 – €10,000

- Annual Savings: €40,000+

Chapter 10: Risk Analysis

This chapter identifies the key risks associated with the project, assesses their likelihood and potential impact, and outlines preventive measures to mitigate.

Identified Risks

Risk	Probability	Impact	Mitigation Strategies
Hardware Procurement Delays	Medium	High	- Source equipment from multiple vendors. - Order hardware early in the project timeline.
Scope Creep	Medium	Medium	- Clearly define deliverables during planning. - Communicate with the client to include a prioritization matrix
Technical Issues During Deployment	Low	High	- Conduct thorough testing during the development phase - Have backup solutions ready
Employee Resistance to System Adoption	Medium	Medium	- Client to schedule employee training sessions - Client to communicate benefits

			of the database solution to employees
Data Breach or Security Vulnerabilities	Low	High	- Use encryption and regular risk assessments - Integrate and use role-based access control

10.1 Risk Assessment

Likelihood and Impact Overview

- Medium Probability & High Impact: Hardware procurement delays can cause significant disruption and should be addressed with early planning and backup options.
- Medium Probability & Medium Impact: Issues like scope creep or employee resistance can be managed with clear priorities and proactive involvement from the client.
- Low Probability & High Impact: While unlikely, data breaches can have severe consequences, making encryption and regular security checks essential.

10.2 Mitigation Strategy

Proactive Planning

- Order hardware as early as possible.
- Identify multiple suppliers to mitigate delays.

Prioritization Framework

- Collaborate with the client to use a prioritization matrix for new requests or potential changes.
- Ensure tradeoffs for additional requests are understood to avoid unnecessary scope expansion.

Client-Led Employee Training

- Recommend the client schedule structured training sessions.
- Suggest that the client emphasize the benefits of the new system to encourage adoption.

Thorough Testing

- Perform comprehensive testing throughout the development process to catch and address technical issues early on.
- Develop backup solutions for critical deployment phases to ensure successful implementation.

Security Measures

- Use encryption to protect sensitive data.
- Client to schedule regular risk assessments and enforce role-based access controls to minimize risk.