

Case Study: Development of a Secure Document Management System for TechSolution Ltd.

Background: TechSolution Ltd. is a growing company that specializes in IT consulting and offers a range of services to clients in various industries, including healthcare, finance, and education. The company has been facing challenges in managing and securely storing documents across multiple departments. Sensitive client information, contracts, and reports need to be stored securely but easily accessible to authorized personnel.

To address this need, TechSolution Ltd. has decided to develop a **Secure Document Management System (SDMS)**. This system will allow users to upload, organize, search, and access documents in a secure environment. The project will follow the **Waterfall methodology**, and the goal is to complete the project within 10 months, with a fixed budget.

The project will be managed using the following phases: **Initiation, Planning, Execution, Monitoring and Controlling**, and **Closing**.

The team includes a **Project Manager (PM)**, **Business Analyst**, **Software Developers**, **QA Specialist**, **UI/UX Designer**, and **Security Expert**.

Objectives:

1. Develop a secure document management system that supports uploading, tagging, and categorizing of sensitive documents.
2. Implement a strong security protocol with user access controls, encryption, and audit logs.
3. Integrate the system with the company's existing cloud storage infrastructure.
4. Ensure compliance with industry security standards (e.g., HIPAA, GDPR).
5. Complete the project in 10 months and stay within the allocated budget.

Challenges:

- High-security requirements due to the sensitive nature of the documents.
 - The system needs to integrate with existing infrastructure, including cloud storage, which may involve complex technical challenges.
 - Tight timeline with little room for scope changes, given the Waterfall approach.
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Questions Based on Project Management Phases (Waterfall Methodology):

1. Initiation Phase:

- What key deliverables would you expect from the Initiation Phase for this project?
- How would you define the project's scope and objectives in the Initiation Phase?
- What potential risks do you foresee at the beginning of the project (e.g., security concerns, integration issues)?

2. Planning Phase:

- How would you develop a detailed project plan in the Planning Phase?
- What strategies would you use to ensure that the project stays within its fixed budget?
- How will you manage risk during the Planning Phase, especially considering the complex integration and security requirements?
- Given the focus on security and compliance, how would you ensure that these requirements are fully understood and documented?

3. Execution Phase:

- In the Execution Phase, what methods would you use to track the development progress?
- How would you ensure quality in the system being developed during this phase, especially with regards to security and functionality?

4. Monitoring and Controlling Phase:

- How would you monitor the project's performance to ensure it stays on track?
- In Waterfall, any issues that arise late in the project can be costly. How would you handle any unexpected issues that could potentially delay the project?
- How would you manage stakeholder expectations during the Monitoring and Controlling Phase?

5. Closing Phase:

- What steps would you take to formally close the project once the SDMS is deployed?
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