Case Study Plan: Managing a Software Database for an Educational Institution

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Introduction

This project focuses on creating a centralized database for the University of South Florida to track software assets across all departments. Right now the university has a fragmented system where different colleges buy their own software and this leads to compliance risks and wasted money on unused licenses. My role as the project manager is to lead a team to plan the development of a comprehensive tracking system. This database needs to hold info like software versions and license agreements and installation dates and which department is actually using the tools. The goal is to bring order to the IT infrastructure and make sure we pass audits. I will be using the six phases of project management to guide this process.

Initiation Phase

The first step is the initiation phase where we actually decide if the project is feasible and define the main idea. I need to write a project proposal that explains why USF needs this database right now. The main problem is that we don't know what software we own so we might be paying for things we don't use. I will present this proposal to the project sponsor who in this case is the University CIO Dr. Miller. We have to decide who is going to do the work and if we have enough support from the different colleges to make this happen. The key output here is getting the funding and approval to officially start.

Definition Phase

Once we get the green light we move to the definition phase to figure out exactly what the database needs to do. This is where we make the requirements list. I will set up meetings with the IT directors from the College of Engineering and the College of Arts and Sciences to ask them what data they need to see. It is important to involve the end users like the help desk staff at this stage so we don't build something they can't use. We need to define functional requirements like the ability to alert us when a license expires and operational requirements like the system needing to handle 50 concurrent users. We also have to agree on preconditions like following

USF data privacy rules. The result of this phase is a definite list of requirements approved by the decision makers.

Design Phase

Now that we know what is required we enter the design phase to figure out how to build it. My team of designers will create the look and feel of the database interface. We will make sketches and flow charts to show how a user navigates from the login screen to the software inventory page. We might build a simple non-working prototype or dummy to show the stakeholders so they can see if it matches what they imagined. This is a critical point because once the design is approved we shouldn't change it later or it will cost too much. The deliverable here is a design document that guides the programmers.

Development Phase

In the development phase we prepare everything needed to actually start building. This isn't the building part yet but it is the scheduling and arranging of tools. I will create a schedule that assigns specific coding tasks to our developers and sets deadlines for when different modules need to be finished. We also need to arrange for the necessary tools like setting up the development servers and getting licenses for the database software we will use to build the system. I will basically make sure the team has everything they need so when implementation starts there are no delays.

Implementation Phase

This is the phase where the project actually takes shape and the database is built. The programmers on my team will start writing the code for the backend and the user interface. It is important to keep the momentum going here because this is the "doing" phase. As the project manager I will monitor the progress to make sure we aren't falling behind schedule. At the end of this phase we have to evaluate the result against the list of requirements we made in the definition phase. We will run tests to see if the database accurately tracks a new software license and if it sends the correct alerts. The phase is done when the result meets the design and requirements.

Follow-up Phase

The final stage is the follow-up phase which is often neglected but really important for long term success. We need to train the USF IT staff on how to use the new system and write a user handbook for them. We also need to decide who is going to maintain the database after my project team dissolves. We have to answer questions like who fixes bugs and who pays for updates later on. We will write a final project report and transfer the responsibility to the university's permanent IT operations team.

Conclusion

Managing a project like this for a university requires sticking strictly to the plan to avoid scope creep and budget issues. By following these six phases we ensure that we don't just jump into coding without knowing what the diverse departments at USF actually need. The result will be a working database that helps the university save money and stay compliant with software licenses.

References

Baars, W. (2006). Project Management Handbook (Version 1.1). Data Archiving and Networked Services (DANS).