As a project manager, our team is tasked with developing a database according to customer specifications, for a software-tracking database, for a college or university. This database will be used and maintained by the IT department of the institution. The information that must be available is the type of software, the developer of the software, the versions of the software, the types of licensing agreements for each type of software, what departments use the software and the computers in the departments on which the software is installed, the installation dates of the software, etc. In this paper, I will explain the six phases of project management in relation to this project.

The first phase of the project is the initiation phase. In this initial stage, the leader of the project outlines the overall plan for the project. Certain aspects that may be discussed include: the goal of the project, the number of individuals helping, what falls outside of the project, time constraints, communication channels that will be used, financials, and time frame. The initiation phase is critical, as potential errors and mistakes can be avoided with adequate planning and preparation. Additionally, the initiation phase may include written documentation for future use, so that if issues do arise, individuals can refer back to the written scope of the project.

Which leads to the second phase of the project, the definition phase. The definition phase outlines the project requirements and preconditions. This phase is especially necessary in software development projects, as the programmers need to have an understanding of the constraints of the project and the necessary fulfillments. In the case of the project, all of the requirements mentioned in the outline should be addressed. The unique part of this phase is that the project manager usually collaborates with the client to establish the groundwork of the project. By “groundwork” I simply mean the rules (timeframe, cost), the functionality of the completed product, and any limitations. It is absolutely paramount that the definition phase is

documented, so that if issues arise between the client and contractor, it can be handled accordingly.

The third phase of the project is the design phase. As the name implies, the plan and design of the product are developed in this stage. Some examples include: the design of a database system, the topology of a network, or the flow chart of an app. Designers usually take cautious steps to ensure that the final product will work as intended, and that users accessing the product will do so seamlessly. Numerous individuals take process in this stage, including UX/UI designers, programmers, and engineers. After the design is completed, it is referred back to the client before the real work begins.

The next stage is the development phase. This stage is generally reserved for larger projects. More individuals are hired, a schedule is drawn, and weekly goals are set. A start date is set.

Implementation of the project starts, and the real work begins. The team (or teams) must have clear, definable goals set forth by the project manager. The project manager must also have a clear understanding of what the status is on various parts of the product and communicate that information to the client. Furthermore, issues, mistakes, and other unexpected errors can arise, which the product manager should resolve. The key to successfully leaving the implementation stage is excellent communication with stakeholders. From my own personal experience, it can be the difference of the project lasting for a few days, to weeks.

The final phase of the project is the follow-up phase. In this phase, the contractor and client conduct meetings to review the final product and potentially fix any glaring errors. The implantation of the project is discussed. I sat in on a “follow-up” meeting once. There were a few parts that I found interesting, and thought I’d mention them here. The first thing that the product

manager brought up was any notable issues that should be fixed immediately. The clients would talk about any glaring problems that required attention. The next part was “positives” and “negatives”. The clients would list “positives” of the project, such as the work ethic of the employees, or the excellent communication of the managers. The “negatives” could include poor installation, or hasty and usual working hours. The meeting would conclude with the clients listing anything they had forgotten during the call, and the meeting would end.

Developing a comprehensive software-tracking database for educational institutions requires meticulous planning and execution. By following the six steps of project management – initiation, planning, execution, monitoring, controlling, and closure – our team can ensure the successful implementation of the database. This project will not only streamline software management but also enhance efficiency and compliance within the institution's IT department.