

Project Background

You have been hired to lead a software project to design and implement a Library Management System (LMS) for the Jonesville local library. Jonesville's library was founded in 1920 and has experienced growth as the city population has grown to approximately 20,000 over the last 85 years with approximately 20% of the population frequenting the library at least once per month. The library offers traditional book loans as well as instructional video and audio tape rentals, computers linked to the Internet, and after-school reading programs for children.

The current LMS was installed in 1990 and consists of a single out-dated computer with a 20MB hard disk and a dot-matrix printer. The software used is DOS based and uses dBase IV as a back-end database. The current system only records checked-out books, tapes, and DVDs and provides a space for marking when the checked-out materials are returned. No provision is made to schedule time on the in-house computers or to track library members. There are 3 computers available for users to view DVDs or connect to the Internet, but demand far exceeds capacity.

The library board recognizes the need to upgrade the LMS and expand the system to meet the needs of the community. Grant money as well as community funds may be available for the new system if the value makes sense. The board has not determined the requirements for the new system because they have limited knowledge about such systems. They have engaged you to help them determine the requirements and to implement a new system.

The ultimate goal of this system is to allow a small staff to track users and on-loan materials and schedule activities and computer time. The board has asked whether the new system should include a web presence for their constituents, but they are not familiar with the pros and cons and need your help on that part of a proposed solution.