

# Course Project

## Project Summary

The course project consists of 5 deliverables. Units 1 through 4 will be individual project submissions and Unit 5 will be a group submission based on the collective results of the 4 individual projects. The project will lead the students through the planning, design, and implementation phases of the testing process.

**Required Software:** Microsoft Word, Microsoft PowerPoint, Microsoft Excel

## Project Components

The following assignments constitute the requirements for the course project. You will use the information provided about the project to complete these assignments and share them with your group. Your group will then review each individual submission to draw from the best ideas and form your final group project submission at the end of the course. Details regarding each project are included in the Graded Assignments area.

- Unit 1: Project Outline and Systems Review (Individual Project)
- Unit 2: White Box Testing Plan (Individual Project)
- Unit 3: Black Box Testing Plan Design (Individual Project)
- Unit 4: Regression and Automated Testing Plan (Individual Project)
- Unit 5: Collective Project Plan and Presentation (Group Project)

**Important Note: The group component of the course project will require interaction with the other members of your group and involves a detailed report based on the work completed in the individual projects during the course. It is strongly suggested that the teams communicate early in the course to start the planning process and not leave this group work until the end of the course.**

## Project Background

You have been hired to lead the testing efforts of a software project which implements a Library Management System (LMS) for the Jonesville local library. The software design team has invited you to attend their first scheduled design meeting. You are encouraged to interact with the design team and plan your testing efforts accordingly.

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.

## New System Design

The software design team has completed their design and will review this design with you in your first meeting. Your task is to develop the testing project plan and to present your final plan to the

Jonesville Board of Directors for approval. The design details are provided below and should serve as the basis for your test planning. Note that part of the systems work will be to transfer the old data to the new system, and this process must be tested and verified.

The library will house a network of computers running Microsoft Windows XP and Internet Explorer. The network will have high-speed Internet access and several shared printers. Library patrons will be able to use the Guest account on the systems and these accounts will have minimal privileges, allowing the patrons to access the Internet but not download or install any software. The library staff will have their own accounts with additional system privileges, including access to the LMS.

The new LMS will be web-based with all access provided through local computers and Internet Explorer. The system will be hosted remotely with the site name <http://www.jonesvillelib.org> (fictitious). The web application will be written in ASP.NET (VB.NET) and will use a Microsoft SQL database also hosted on the remote server. Developers will have ftp access to the web site and MS SQL Enterprise access to the database.

The LMS will have the following modules. You will use this list of modules to create your testing project plan.

#### **Admin Module**

The admin module allows system administrators to perform the following tasks:

- Modify options for the LMS system
- Add/remove items from the database
- Backup/restore the database
- Update content area of the site (library news)

#### **Staff Module**

The staff module allows users with staff privileges to perform the following tasks:

- Check in and check out library resources to library patrons (patrons can be added or modified in this module)
- Schedule library computer time
- Print reports such as late items, charges, schedule sheets, etc.

#### **User Module**

The guest module allows any visitors to the site to perform the following tasks:

- Create an account
- Schedule time on the library computers
- Search the system for availability of library resources such as books, tapes, and DVDs and reserve them if desired.
- Check for a list of items currently checked out and associated late fees if applicable
- Read library news section of the site.