Title: Dispersed Library Accountability System for Our Lady of Lourdes, Daytona Beach

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As a student of the MSSA program, I will be completing this project using the skills I have developed in the program throughout the term. These skills will involve programming in C# and the .NET environment as well as creating and running SQL queries to a back-end database.

Description

Our Lady of Lourdes Catholic School operates with a **limited budget** and **limited space**. As a result, when the school decided a media room and computer lab was needed, they decided to do away with the physical library. Teachers relocated the books they specifically wanted to their own classrooms until the library was completely empty. The new English Language Arts teacher for the Middle School needs to know what books are in the school, where they are located and obtain a simple solution for students and teachers to check out individual books.

Information Architecture

Database:

The database architecture contains tables for media, books, users and locations in addition to some other tables created to provide for a more normalized database. The database was created with SQL Server Management System and created from a query line using drop, create and insert keywords where appropriate.

Design Implementation:

While implementing the data for the database, one of the data points was misunderstood at the onset of the requirements phase in how it relates to other data and how it would be used. As a result, one of the original tables was completely removed titled Lexile scores. Reading Lexile scores are produced for students in a range whereas books have only a single Lexile score. This made having a single Lexile table with more than 1000 rows unnecessary when there wouldn’t likely be that many items in the database to begin with. I also created tables for grade level and age as requirements were clarified for wanting to categorize books to a specific age and grade appropriate range despite how high a student’s Lexile score is indicating reading ability.

Conclusion

The next steps will be a simultaneous effort of acquiring all the data necessary for implementation and proceeding to develop the interface. The customer will be working on data for the tables and I will need to implement some procedures to make the process easier but currently unaware of the procedures to do so. These include answers to questions such as, where will the database reside at the school so everyone can have access to it and how do I get it there – i.e. what will the file path to the database look like. I also need to understand how I can enable the user to import a preformatted file to add items to a database while checking to ensure they do not import data which already exists. Finally, the user interface will likely be from an MVC type platform and I need to understand more on how to make this aesthetically pleasing and easy to use. The phone app continues to be a stretch goal.

Gist File in

<https://gist.github.com/gwilso39/36472947ad252db1836bb3305a72dede>

Video Presentation:

<https://youtu.be/UH1G1KCMjlA>