Project description. Briefly describe the project—what it will do, who the audience will be, etc

I will be constructing a library website for my personal use. I own over 1000 books and would like a convenient way to catalogue them. (and to prevent myself from buying books I forgot that I already owned) I'd also like to quickly find a book in a certain genre or reading level. With the design issues I will solve for my own library, I can create a framework for other private libraries to use to create their own sites.

Design overview. Briefly describe how your program will go about solving the problem from the first section. This should be a high level description, but should communicate the general approach that you will take.

There are websites that are designed for children's libraries, and ones for adult libraries, but I haven't found one for both. Also, the catalogues are either tied to certain publishers to identify books by ISBN, or are difficult to use a they are so open ending that the user needs to manually set up their own database, identifying fields and entering values manually. This site will remedy this by having a database already set up, and while ISBM scanning would be ideal, it is outside the scope of the class. In order to make entering information easier, the user will be able to set fields temporarily constant to reflect the order in which they are entering. For example, If I open up my Level J box of children's books. I'd like to have the database automatically fill in the type (children's), level, and location. Within that J box, I have a bunch of books by

one author, so for part of the session, I'd like to hold the author constant too, so all I have to enter is the title, making the whole process quick and easy.

Database. The first weekly assignment will be to implement your database. Please briefly describe the kind of data that will be stored in your database, including relationships between the entities. For each entity, list the name and any columns/properties it will have. You should have at least three or four entities with some level of relationships among them.

There are two types of books, children and adult. All books record title, author, location, notes, and genre as well as a flag if it is part of a series, and if it is, the name of the series and it's position in the series. Children's books will include a level. Adult books will contain culture of origin and publication date. There will also be the option to loan a book, in which case the database will store the borrower's name, contact info, and due date. Multimedia collections will be omitted as they are outside the scope of the class, though it is easy to see how they might be added within this framework. .

Database Retrieval. The second weekly assignment will be to retrieve data from your database and display it to the user. Please briefly describe what data you will retrieve and how it will be presented.

The main page will have access to a page to add books to the catalogue, a search function, and will display a dashboard of current loans as wells as newest additions (helpful to see where we left off cataloging, or remind the owner of the newest books in the library) The data will be searchable by every field except for location. The website will then bring the user to a book profile

page displaying all of the database information, along with a text box to enter additional notes, and a button to lend the book, which opens text boxes to enter borrower information. All other fields will only be editable by clicking on a button to bring the user to an edit page.

Database Update. The third weekly assignment will be to insert and update data in your database. Please briefly describe what data the user will be able to add/update, how they will do it, and what considerations will be in place to ensure the integrity of the data.

From the homepage, there will be a link to an edit page. This will have text boxes with corresponding checkboxes to freeze values as described above.