

## **ASSIGNMENT 11 – W3D3 – LESSON12 –MongoDB Data Modeling:**

In this assignment, you will practice NoSQL data modeling and designing a database for MongoDB, based on the following requirement:

Create a NoSQL (MongoDB) database design for an application to manage data for a library, taking into consideration the following requirements:

Books have an ISBN number and are categorized by author and tagged by keywords to facilitate search.

Books can be borrowed by library members (who are of 3 types, students or faculty or staff),

The librarian will be able to check all borrowed books and their return (or due) date, so that he/she may contact the Library member who is late in returning the book(s) they borrowed.

Each book has an overdue fee (per day) associated with it.

**Note:** You are expected to come up with the database specification (i.e. database name, collection(s) name(s), field names etc.). Then create/implement the database in your MongoDB server and populate it with some data (also you can make these up).

Include a brief explanation for every specific design decision/choice you make. E.g. whether you choose to embed some data or not, and why.

Next, use either the mongoexport or mongodump tool to write-out your database data to a file, which you will submit.

Also, while performing the above tasks, take screenshot(s) of your work and save into a document, which you will also submit to the Assignment 11 item on Sakai.

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