**Assignment 6: Migrating from SQL to NoSQL with MongoDB, Mongoose, and Atlas**

#### Assessment Weight:

9% of your final course grade

#### Objective:

To build upon Assignment 5, this assignment tasks you with migrating your SQL-based application to a NoSQL architecture using MongoDB, Mongoose, and Atlas. You will refactor your application to manage your data using these technologies, ensuring seamless operation and integration.

#### **Part 1: Setting up MongoDB with Atlas**

* Sign up for MongoDB Atlas and create a new cluster.
* Within your cluster, create a database named legoCollection and two collections: Themes and Sets.
* Note down your MongoDB Atlas connection string, as you will need it to connect your application to MongoDB.

#### **Part 2: Refactoring the Application to Use MongoDB and Mongoose**

* Install Mongoose in your project by running npm install mongoose.
* Replace your Sequelize models with Mongoose models. Your Theme and Set models should now be defined using Mongoose's schema definitions.
* Update your .env file to include your MongoDB Atlas connection string:

DB\_CONNECTION\_STRING="<Your\_MongoDB\_Atlas\_Connection\_String>

* Refactor your database interaction code to use Mongoose's methods for connecting to MongoDB, querying data, inserting documents, and other CRUD operations.

#### **Part 3: Implementing CRUD Operations with Mongoose**

* Ensure that your application supports the creation, reading, updating, and deletion of Lego sets using Mongoose.
* Test all functionalities to ensure that they work as expected with your MongoDB database.

#### **Part 4: Deploying Your Application**

* Update your deployment on platform to include your new MongoDB database.
* Ensure that your deployed application correctly connects to MongoDB Atlas and that all functionalities work as expected in the live environment.

#### Assignment Submission:

* Add the following declaration at the top of your main application file (e.g., server.js):

/\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\* WEB322 – Assignment 06

\*

\* I declare that this assignment is my own work in accordance with Seneca College's

\* Academic Integrity Policy:

\*

\* https://www.senecacollege.ca/about/policies/academic-integrity-policy.html

\*

\* Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Student ID: \_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_

\*

\* GitHub Repository URL: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\* Deployed Application URL: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\*

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/

* Commit and push your code changes to your GitHub repository.
* Deploy your application to your chosen platform and ensure it is accessible via the provided URL.
* Submit the URL of your GitHub repository and the URL of your deployed application to My.Seneca under Assignments -> Assignment 6.

#### Important Note:

* NO LATE SUBMISSIONS for assignments. Late assignment submissions will not be accepted and will receive a grade of zero (0).
* Submitted assignments must run both locally and in the deployed environment. Startup errors or runtime issues that prevent the application from running will result in a grade of zero (0) for the assignment.