

Emerging Technology Lab

Assignment 7

Development and Testing of REST API with NodeJS, ExpressJS, and MongoDB

Create a NodeJS application to provide endpoints for the collections **studentInfo** and **studentAcademicInfo** with a smellier structure of objects created in Assignment 6. Install required packages like – express, mongoose, nodemon and perform the following operations. Handle asynchronous behaviour and exceptions properly.

1. Define schema and model for studentInfo where every field must be required and rollno, mobile, and email must be unique.
2. Define schema and model for studentAcademicInfo where every field is required and rollno is unique again.
3. Create a file to establish the connection with MongoDB and select the database.
4. Create a controller file for studentInfo and add functionalities for –
 - a. Add a student's info
 - b. Retrieve all students' records
 - c. Retrieve a single student based on roll number
 - d. Update a student based on roll number
 - e. Delete a student based on roll number
5. Create a controller file for studentAcademicInfo and add functionalities for –
 - a. Add a student's academic record
 - b. Retrieve all students' academic records
 - c. Retrieve a single student's academic record based on roll number
 - d. Update a student's academic record based on roll number
 - e. Delete a student's academic record based on roll number
6. Now use the controllers and provide end-points for all the functionalities and test the endpoints with Postman
7. Add two more routes/end-points one of which will be capable of adding records to both the collections and another one will fetch the records from both the collections.