

## CSD 3103 Assignment 4

**STUDENT NAME: Ananta Poudel**

**STUDENT ID: C0913139**

In this assignment, you are requested to use 'RESTful', 'express', 'node' and 'MongoDB' to develop a web-application. We are seeking to store and modify the information of students through web requests. A student is represented with: *first name, last name, id, semester and the list of courses taken by that student*. Note: you are requested to design/develop a separate table for the courses in your database.

The operations that we need to implement are as follows:

### Add student to database

STUDENT MANAGEMENT SYSTEM

Home Students Courses

Students

First Name

Last Name

Student ID

Semester

Courses

New

Student

NS19391

First

Math

Create Student

All Students

Student ID	Student Name	Semester	Courses	Actions
C0913139	Ananta Poudel	Third	Computer Science	Edit Delete
C0913137	Subash Pariyar	Second	Computer Science	Edit Delete
C0913138	Bikash Shrestha	Third	Math, Computer Science	Edit Delete

STUDENT MANAGEMENT SYSTEM

Home Students Courses

Students

First Name

Last Name

Student ID

Semester

Courses

Select...

Create Student

All Students

Student ID	Student Name	Semester	Courses	Actions
C0913139	Ananta Poudel	Third	Computer Science	Edit Delete
C0913137	Subash Pariyar	Second	Computer Science	Edit Delete
C0913138	Bikash Shrestha	Third	Math, Computer Science	Edit Delete
NS19391	New Student	First	Math	Edit Delete

# Remove student from the database

STUDENT MANAGEMENT SYSTEM

HomeStudentsCourses

Students

First Name

Last Name

Student ID

Semester

Courses

Select... | v

Create Student

All Students

Student ID	Student Name	Semester	Courses	Actions
C0913139	Ananta Poudel	Third	Computer Science	<div>EditDelete</div>
C0913137	Subash Pariyar	Second	Computer Science	<div>EditDelete</div>
C0913138	Bikash Shrestha	Third	Math, Computer Science	<div>EditDelete</div>

# Modify student in database

STUDENT MANAGEMENT SYSTEM

HomeStudentsCourses

Students

First Name

Last Name

Student ID

Semester

Courses

Ananta

Poudel Modified

C0913139

Third

Computer Science | x | v

Update Student

All Students

Student ID	Student Name	Semester	Courses	Actions
C0913139	Ananta Poudel	Third	Computer Science	<div>EditDelete</div>
C0913137	Subash Pariyar	Second	Computer Science	<div>EditDelete</div>
C0913138	Bikash Shrestha	Third	Math, Computer Science	<div>EditDelete</div>

STUDENT MANAGEMENT SYSTEM

HomeStudentsCourses

Students

First Name

Last Name

Student ID

Semester

Courses

Select... | v

Update Student

All Students

Student ID	Student Name	Semester	Courses	Actions
C0913139	Ananta Poudel Modified	Third	Computer Science	<div>EditDelete</div>
C0913137	Subash Pariyar	Second	Computer Science	<div>EditDelete</div>
C0913138	Bikash Shrestha	Third	Math, Computer Science	<div>EditDelete</div>

## Modify course in database

STUDENT MANAGEMENT SYSTEM

HomeStudentsCourses

### Courses

Course Code

Course Name

Description

Credits

Add Course

102

Math Modified

Lorem ipsum

3

All Courses

Course Code	Course Name	Credits	Description	Actions
101	Computer Science	90	Lorem ipsum	<div>Edit</div> <div>Delete</div>
102	Math	3	Lorem ipsum	<div>Edit</div> <div>Delete</div>

STUDENT MANAGEMENT SYSTEM

HomeStudentsCourses

### Courses

Course Code

Course Name

Description

Credits

Update Course

All Courses

Course Code	Course Name	Credits	Description	Actions
101	Computer Science	90	Lorem ipsum	<div>Edit</div> <div>Delete</div>
102	Math Modified	3	Lorem ipsum	<div>Edit</div> <div>Delete</div>

Specifically, you are requested to accomplish the following:

1. Develop the web-services mentioned above. When developing, use one function to develop each one of above-mentioned operations.
2. Develop client-side model to consume the web-services you implemented. The client-side model that you develop should be user-friendly and facilitate the user to perform the functionalities provided by the web-service. So, develop a professional and friendly user-interface. Write down comments throughout your web-service and web-pages that you develop.

**To submit:**

Follow these steps to submit your work successfully:

1. Create a folder and name it as firstName\_lastName\_A4
2. Copy all files that you developed in this folder
3. Write down your information on top of this document and place it in the folder
4. Zip this folder and submit it through Moodle before the deadline