

# Assignment 2 - Web API - Automated development process.

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## Overview.

This project's API is standard RESTful, it includes: GET, PUT, POST and DELETE.

## API endpoints.

- GET /courses - Get all courses.
- GET /courses/:id - Get one course by id.
- POST /courses - Add a new course
- PUT /courses/:id/size - Increase size of a course.
- DELETE /courses/:id - Delete one course.
- GET /teachers - Get all teachers.
- GET /teachers/:id - Get one teacher by id.
- GET /teachers/courses/:id - Get all courses taught by a teacher by using populate function.
- POST /teachers/ - Add a new teacher.
- DELETE /teachers/:id - Delete one teacher.
- GET /students - Get all students.
- GET /students/:id - Get one student by id.
- GET /students/fuzzystudent/:keyword - Get Find students by fuzzysearch.
- GET /students/courses/:id - Get all courses learned by a student by using populate function.
- POST /students/ - Add a new student.
- PUT /students/:id/age - Increase age of a student.
- DELETE /students/:id - Delete one student.

## Continuous Integration and Test results.

URL of the Travis build page for web API:

<https://travis-ci.org/ZihanZhang001/coursemgt-5.0>

Test results:

```
GET /teachers
(node:4634) DeprecationWarning: current URL string parser is deprecated, and will
be removed in a future version. To use the new parser, pass option {
useNewUrlParser: true } to MongoClient.connect.
✓ should return all the teachers in an array (69ms)
GET /teachers/:id
✓ should return one teacher in an array (40ms)
GET /teachers/courses/:id
```

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    ✓ should return reference courses taught by a teacher in an array (79ms)
  POST /teachers
    ✓ should return confirmation message and update datastore (48ms)
  DELETE /teachers/:id
    valid delete
(node:4634) DeprecationWarning: collection.findAndModify is deprecated. Use
findOneAndUpdate, findOneAndReplace or findOneAndDelete instead.
    ✓ should delete a teacher (74ms)
    invalid delete
    ✓ should return a 404 and a message for invalid teacher id
6 passing (3s)
===== Coverage summary =====
Statements   : 55.91% ( 142/254 )
Branches     : 14% ( 7/50 )
Functions    : 22.73% ( 10/44 )
Lines        : 55.91% ( 142/254 )
=====
The command "npm run coverage" exited with 0.
after_success
2.02s$ npm run publish-coverage
> coursemgmt-1.0@0.0.0 publish-coverage
/home/travis/build/ZihanZhang001/coursemgmt-5.0
> nyc report --reporter=text-lcov | coveralls
Done. Your build exited with 0.

```

URL of published test coverage results on Coveralls:

<https://coveralls.io/github/ZihanZhang001/coursemgmt-5.0>

## Extra features.

I have used Build automation and Continuous Integration.