**Objective:-** Create node APIs to perform student and course object CRUD operation.

**Code :-**

1. **/config/db.js**

const { Sequelize } = require('sequelize');  
  
const sequelize = new Sequelize('student\_course\_db', 'root', 'password', {  
 host: 'localhost',  
 dialect: 'mysql',  
});  
  
module.exports = sequelize;

1. **/models/course.model.js**

const { DataTypes } = require('sequelize');  
const sequelize = require('../config/db');  
  
const Course = sequelize.define('Course', {  
 name: DataTypes.STRING,  
 description: DataTypes.STRING,  
});  
  
module.exports = Course;

1. **/models/student.model.js**

const { DataTypes } = require('sequelize');  
const sequelize = require('../config/db');  
const Course = require('./course.model');  
  
const Student = sequelize.define('Student', {  
 name: DataTypes.STRING,  
 email: DataTypes.STRING,  
});  
  
Course.hasMany(Student);  
Student.belongsTo(Course);  
  
module.exports = Student;

1. **/services/course.service.js**

const Course = require('../models/course.model');  
  
exports.createCourse = (data) => Course.create(data);  
exports.getAllCourses = () => Course.findAll();  
exports.getCourseById = (id) => Course.findByPk(id);  
exports.updateCourse = (id, data) => Course.update(data, { where: { id } });  
exports.deleteCourse = (id) => Course.destroy({ where: { id } });

1. **/services/student.service.js**

const Student = require('../models/student.model');  
  
exports.createStudent = (data) => Student.create(data);  
exports.getAllStudents = () => Student.findAll({ include: ['Course'] });  
exports.getStudentById = (id) => Student.findByPk(id, { include: ['Course'] });  
exports.updateStudent = (id, data) => Student.update(data, { where: { id } });  
exports.deleteStudent = (id) => Student.destroy({ where: { id } });

1. **/controllers/course.controller.js**

const courseService = require('../services/course.service');  
  
exports.create = async (req, res) => {  
 const course = await courseService.createCourse(req.body);  
 res.json(course);  
};

exports.findAll = async (req, res) => {  
 const courses = await courseService.getAllCourses();  
 res.json(courses);  
};

exports.findOne = async (req, res) => {  
 const course = await courseService.getCourseById(req.params.id);  
 res.json(course);  
};

exports.update = async (req, res) => {  
 await courseService.updateCourse(req.params.id, req.body);  
 res.send('Course updated');  
};

exports.remove = async (req, res) => {  
 await courseService.deleteCourse(req.params.id);  
 res.send('Course deleted');  
};

1. **/controllers/student.controller.js**

const studentService = require('../services/student.service');  
  
exports.create = async (req, res) => {  
 const student = await studentService.createStudent(req.body);  
 res.json(student);  
};

exports.findAll = async (req, res) => {  
 const students = await studentService.getAllStudents();  
 res.json(students);  
};

exports.findOne = async (req, res) => {  
 const student = await studentService.getStudentById(req.params.id);  
 res.json(student);  
};

exports.update = async (req, res) => {  
 await studentService.updateStudent(req.params.id, req.body);  
 res.send('Student updated');  
};

exports.remove = async (req, res) => {  
 await studentService.deleteStudent(req.params.id);  
 res.send('Student deleted');  
};

1. **/routes/course.routes.js**

const express = require('express');  
const controller = require('../controllers/course.controller');  
const router = express.Router();  
  
router.post('/', controller.create);  
router.get('/', controller.findAll);  
router.get('/:id', controller.findOne);  
router.put('/:id', controller.update);  
router.delete('/:id', controller.remove);  
  
module.exports = router;

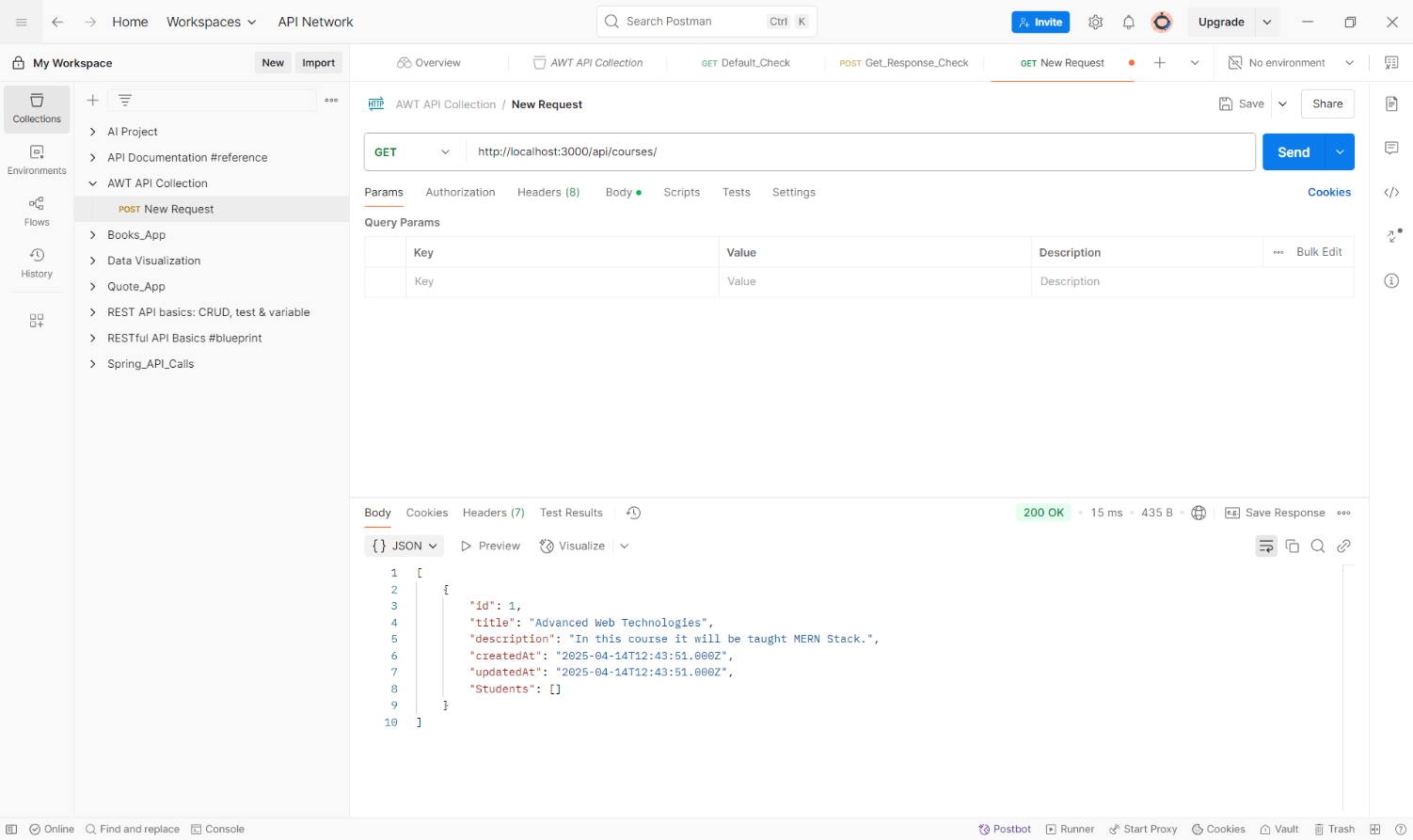
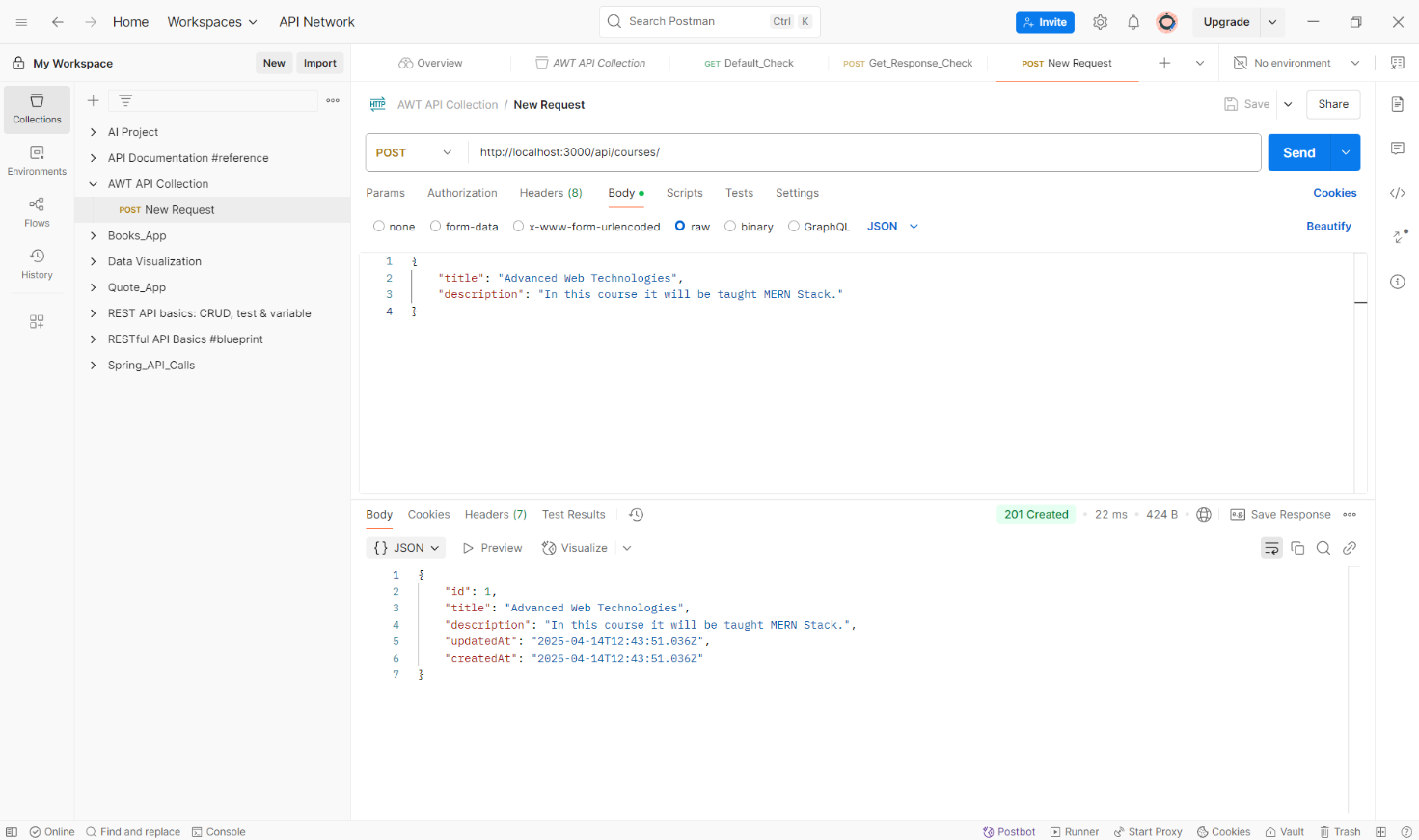
1. **/routes/student.routes.js**

const express = require('express');  
const controller = require('../controllers/student.controller');  
const router = express.Router();  
  
router.post('/', controller.create);  
router.get('/', controller.findAll);  
router.get('/:id', controller.findOne);  
router.put('/:id', controller.update);  
router.delete('/:id', controller.remove);  
  
module.exports = router;

1. **/index.js**

const express = require('express');  
const sequelize = require('./config/db');  
const studentRoutes = require('./routes/student.routes');  
const courseRoutes = require('./routes/course.routes');  
  
const app = express();  
app.use(express.json());  
  
app.use('/students', studentRoutes);  
app.use('/courses', courseRoutes);  
  
sequelize.sync().then(() => console.log('DB Synced'));  
app.listen(3000, () => console.log('Server running on port 3000'));

**Output :-**

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