College of Engineering, Construction and Living Sciences
Bachelor of Information Technology
ID607001: Introductory Application Development Concepts
Level 6, Credits 15

Practical: Node.js REST API Testing

Assessment Overview

In this **individual** assessment, you will test the **REST API** you created in the **Project 1: Node.js REST API** assessment. In addition, marks will be allocated for code elegance, documentation and **Git** usage.

Learning Outcome

At the successful completion of this course, learners will be able to:

1. Design and build secure applications with dynamic database functionality following an appropriate software development methodology.

Assessments

Assessment	Weighting	Due Date	Learning Outcome
Practical: Node.js REST API Testing	20%	08-10-2023 (Sunday at 04.59 PM)	1
Project 1: Node.js REST API	40%	15-09-2023 (Friday at 04.59 PM)	1
Project 2: React CRUD	40%	10-11-2023 (Friday at 04.59 PM)	1

Conditions of Assessment

You will complete majority of this assessment during your learner-managed time. However, there will be time to discuss the requirements and your assessment progress during the teaching sessions. This assessment will need to be completed by **Sunday, 08 October 2023 at 4.59 PM**.

Pass Criteria

This assessment is criterion-referenced (CRA) with a cumulative pass mark of **50%** across all assessments in **ID607001: Introductory Application Development Concepts**.

Submission

You **must** submit all program files via **GitHub Classroom**. Here is the URL to the repository you will use for your submission – https://classroom.github.com/a/wJ4pC7Y7. Create a **.gitignore** and add the ignored files in this resource - https://raw.githubusercontent.com/github/gitignore/main/Node.gitignore. The latest program files in the **master** or **main** branch will be used to mark against the **Functionality** criterion. Please test your **master** or **main** branch application before you submit. Partial marks **will not** be given for incomplete functionality. Late submissions will incur a **10% penalty per day**, rolling over at **5:00 PM**.

Authenticity

All parts of your submitted assessment **must** be completely your work. Do your best to complete this assessment without using an **AI generative tool**. You need to demonstrate to the course lecturer that you can meet the learning outcome for this assessment.

However, if you get stuck, you can use an **AI generative tool** to help you get unstuck, permitting you to acknowledge that you have used it. In the assessment's repository **README.md** file, please include what prompt(s) you provided to the **AI generative tool** and how you used the response(s) to help you with your work. It also applies to code snippets retrieved from **StackOverflow** and **GitHub**.

Failure to do this may result in a mark of **zero** for this assessment.

Policy on Submissions, Extensions, Resubmissions and Resits

The school's process concerning submissions, extensions, resubmissions and resits complies with **Otago Polytechnic — Te Pūkenga** policies. Learners can view policies on the **Otago Polytechnic — Te Pūkenga** website located at https://www.op.ac.nz/about-us/governance-and-management/policies.

Extensions

Familiarise yourself with the assessment due date. Extensions will **only** be granted if you are unable to complete the assessment by the due date because of **unforeseen circumstances outside your control**. The length of the extension granted will depend on the circumstances and **must** be negotiated with the course lecturer before the assessment due date. A medical certificate or support letter may be needed. Extensions will not be granted for poor time management or pressure of other assessments.

Resubmissions

Learners may be requested to resubmit an assessment following a rework of part/s of the original assessment. Resubmissions are to be completed within a negotiable short time frame and usually **must** be completed within the timing of the course to which the assessment relates. Resubmissions will be available to learners who have made a genuine attempt at the first assessment opportunity and achieved a **D grade (40-49%)**. The maximum grade awarded for resubmission will be **C-**.

Resits

Resits and reassessments are not applicable in **ID607001: Introductory Application Development Concepts**.

Instructions

You will need to submit a **suite of API tests** and **documentation** that meet the following requirements:

Functionality - Learning Outcome 1 (50%)

- **Testing:**
  - **API tests** are written using **Mocha** and **Chai**.
  - At least **50 API tests** verifying the correctness for the following:
    - **POST**, **GET all**, **GET one**, **PUT** and **DELETE** operations.
    - **Index route** displaying all existing **routes**.
    - A **route** that does not exist.
    - Validation for **POST** and **PUT** operations.
    - **Filtering**, **sorting** and **pagination** for **GET all** operations.
    - Status codes.
- **Scripts:**
  - Seed your database with **Prisma**.
  - Run your **API tests** using **Mocha**.

Code Elegance - Learning Outcome 1 (40%)

- Appropriate naming of files, variables and functions.
- Idiomatic use of control flow, data structures and in-built functions.
- Efficient algorithmic approach.
- Sufficient modularity.
- Each **test** file has a **JSDoc** header comment located at the top of the file.
- In-line comments where required. It should be for code that needs further explanation.
- Code is formatted using **Prettier**.
- **Mocha** and **Chai** are installed as **development dependencies**.
- No dead or unused code.

Documentation and Git Usage - Learning Outcome 1 (10%)

- A **GitHub** project board to help you organise and prioritise your work.
- Provide the following in your repository **README.md** file:
  - How to seed your database with **Prisma**?
  - How do you run your **API tests**?
- Use of **Markdown**, i.e., headings, bold text, code blocks, etc.
- Correct spelling and grammar.
- Your **Git commit messages** should:
  - Reflect the context of each functional requirement change.
  - Be formatted using an appropriate naming convention style.

Additional Information

- **Do not** rewrite your **Git** history. It is important that the course lecturer can see how you worked on your assessment over time.