College of Engineering, Construction and Living Sciences
Bachelor of Information Technology
ID511001: Programming 2
Level 5, Credits 15

Classroom Tasks

Assessment Overview

In this assessment, you will **unit test** your student management system **Windows Form Application** using **C#**.

Learning Outcomes

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

1. Build interactive, event-driven GUI applications using pre-built components.
2. Declare and implement user-defined classes using encapsulation, inheritance and polymorphism.

Assessments

Assessment	Weighting	Due Date	Learning Outcomes
Project 1	25%	21-06-2024 (Friday at 4.59 PM)	1 and 2
Project 2	35%	03-05-2024 (Friday at 4.59 PM)	1 and 2
Theory Examination	30%	26-06-2024 (Wednesday at 3.00 PM)	1 and 2
Classroom Tasks	10%	03-05-2024 (Friday at 4.59 PM)	1 and 2

Conditions of Assessment

You will complete this assessment during your learner-managed time. However, there will be time during class to discuss the requirements and your progress on this assessment. This assessment will need to be completed by **Friday, 03 May 2024** at **4.59 PM**.

Pass Criteria

This assessment is criterion-referenced (CRA) with a cumulative pass mark of **50%** over all assessments in **ID511001: Programming 2**.

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(s) 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.

Submission

You **must** submit all application files via **GitHub Classroom**. Here is the URL to the repository you will use for your submission – https://classroom.github.com/a/Wx7UHym1. If you do not have not one, create a **.gitignore** and add the ignored files in this resource - https://raw.githubusercontent.com/github/gitignore/main/VisualStudio.gitignore. Create a branch called **classroom-tasks**. The latest application files in the **classroom-tasks** branch will be used to mark against the **Functionality** criterion. Please test 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**.

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 **ID511001: Programming 2**.

Instructions

You will need to submit an application and documentation that meet the following requirements:

Functionality - Learning Outcome 1(50%)

- The application needs to open without code or file structure modification in **Visual Studio**.
- You need to create 20 **unit tests** covering the following:
  - All **properties** in the **Institution** class. **Three** tests are expected.
  - All **properties** in the **Person** class. **Three** tests are expected.
  - All **methods** in the **CourseAssessmentMark** class. **Seven** tests are expected.
  - The number of **Institution**, **Department** and **Course** objects after seeding. **Three** tests are expected.
  - The salary of a **Lecturer**, **Senior Lecturer**, **Principal Lecturer** and **Associate Professor**. **Four** tests are expected.

Code Quality and Best Practices - Learning Outcome 2 (45%)

- Appropriate naming of files, variables, methods and classes.
- Idiomatic use of values, control flow, data structures and in-built functions.
- Efficient algorithmic approach.
- Sufficient modularity.
- Each file has an **XML documentation comment** located at the top of the file. In the **assessment** directory of the **course materials** repository, you will find an **XML documentation comment** example in the **xml-documentation-comment.txt** file.
- Formatted code.
- No dead or unused code.

Documentation and Git Usage - Learning Outcome 2 (5%)

- Provide the following in your repository **README.md** file:
  - How to run your unit tests?

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.