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

Project

Assessment Overview

In this **individual** assessment, you will design and develop a game using **Unreal Engine**. In addition, marks will be allocated for code quality and best practices, 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	20%	21-06-2024 (Friday at 4.59 PM)	1
Project	80%	21-06-2024 (Friday at 4.59 PM)	1

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, 21 June 2024** 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 files via **GitHub Classroom**. Here is the URL to the repository you will use for your submission – https://classroom.github.com/a/lvW3JyHk. Late submissions will incur a **10% penalty per day**, rolling over at **5:00 PM**. If you do not have not one, create a **.gitignore**. The latest application files in the **main** branch will be used to mark against the **Technical and Professional Proficiency** 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**.

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.

Resits

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

Instructions

Technical and Professional Proficiency - Learning Outcome 1 (50%)

- The topic for the game is **your choice**.
- The game needs to open without code or file structure modification in **Unreal Engine**.
- Gather requirements from the client and deconstruct them into user stories.
- Design and develop a game using **Unreal Engine**.
- Integrate a **database** into the game. The type of **database** is **your choice**.
- Demo the game on a web platform.

Code Quality and Best Practices - Learning Outcome 1 (30%)

- An appropriate **.gitignore** file is used.
- 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 a **comment** located at the top of the file.
- Formatted code.
- No dead or unused code.

Documentation and Git Usage - Learning Outcome 1 (20%)

- A **GitHub** project board or issues to help you organise and prioritise your development work. The course lecturer needs to see consistent use of the **GitHub** project board or issues for the duration of the assessment.
- In a **Microsoft Word** document called **game-document**, explain the following:
  - Link to the game
  - Core concept
  - Design pillars
  - Main features and mechanics
  - Target platform and audience
  - Interface and controls
  - Basic story
  - Visual style
  - Audio style
  - Security considerations
  - Known issues and bugs
  - Future improvements
- 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.
- You need to show the course lecturer the initial **GitHub** project board or issues before you start your development work. Following this, you need to show the course lecturer your **GitHub** project board or issues at the end of each week.