# Project assessment:

## Criteria

### Unit code, name and release number

ICTICT433 – Build Graphical User Interface

ICTPRG302 – Apply Introductory Programming Techniques

### Qualification/Course code, name and release number

ICT40120 – Certificate IV in Information Technology Game Development

## Student details

### Student number

### Student name

## Assessment declaration

*Note: If you are an online student, you will be required to complete this declaration on the TAFE NSW online learning platform when you upload your assessment.*

This assessment is my original work and has not been:

* plagiarised or copied from any source without providing due acknowledgement.
* written for me by any other person except where such collaboration has been authorised by the Teacher/Assessor concerned.

### Student signature and Date

Version: 20230115

Date created: 15 January 2023

Date modified: 15 January 2023

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## Assessment instructions

| Assessment details | Instructions |
| --- | --- |
| **Assessment overview** | The objective of this assessment is to assess your knowledge and performance in:   * Establish application task * Determine specification of GUI and develop GUI prototype * Design and build GUI according to specification * Apply language syntax and layout * Apply control structures * Code using standard programming algorithms * Test code * Test and document GUI according to specification * Create a simple application and seek feedback |
| **Assessment Event number** | 1 of 2 |
| **Instructions for this assessment** | This is a project-based assessment that assesses your knowledge and performance of the unit.  This assessment is in Three parts:   1. Review and clarify requirements 2. Design the application 3. Develop the application |
| **Submission instructions** | On completion of this assessment, you are required to submit it to your Teacher/Assessor for marking. Where possible, submission and upload of all required assessment files should be via the TAFE NSW online learning platform.  Ensure you have included your name at the bottom of each page of documents you submit.  It is important that you keep a copy of all electronic and hardcopy assessments submitted to TAFE and complete the assessment declaration when submitting the assessment. |
| **What do I need to do to achieve a satisfactory result?** | To achieve a satisfactory result for this assessment you must complete all required tasks to industry standards.  If a resit is required to achieve a satisfactory result it will be conducted at an agreed time after a suitable revision period. |
| **What do I need to provide?** | * TAFE NSW student account username and password. If you do not know your username and password, contact your campus or service centre on 131601. * Computer or other device with word processing software and internet access * Writing materials, if required * USB drive or other storage method with enough free space to save work to.   If assessment is completed off campus:   * Integrated development environment * Libraries and re-use components and their licensing agreements * Other software as required |
| **What the Teacher/Assessor will provide** | * Client Meeting * Workstation * Software * Design Document |
| **Due date**  **Time allowed**  **Location** | Friday of Week 1  Indicative time to complete:   * In class: 3 hours * Out of class: 5 weeks   Assessment is to be completed both in and out of class. |
| **Supervision** | Part of this is an unsupervised, take-home assessment. Your Teacher/Assessor may ask for additional evidence to verify the authenticity of your submission and confirm that the assessment task was completed by you.  You may access your referenced text, learning notes and other resources. |
| **Assessment feedback, review or appeals** | In accordance with the TAFE NSW policy *Manage Assessment Appeals,* all students have the right to appeal an assessment decision in relation to how the assessment was conducted and the outcome of the assessment. Appeals must be lodged within **14 working days** of the formal notification of the result of the assessment.  If you would like to request a review of your results or if you have any concerns about your results, contact your Teacher/Assessor or Head Teacher. If they are unavailable, contact the Student Administration Officer.  Contact your Head Teacher/Assessor for the assessment appeals procedures at your college/campus. |

### Project scenario

You are working as a developer as part of a development team. The Project Manager has given you a small client game application to develop. You will be required to meet with the client to clarify the projects requirements before designing and developing the small application.

**Task 1: Review and clarify requirements**

You will be required to identify and document the design specifications for this project.   
The design specifications will be required to determine the projects GUI requirements, GUI functionality, development language, organisational standards and guidelines that are applicable to programming this GUI project.

**Task 1.1: Clarify and Confirm work brief and clarify requirements – interactive roleplay**

Your Project Manager has given you the clients emailed request which outlines your project brief. After reading it you will need to organise a meeting to clarify some of the requirements of the project.  
  
**Email**

**From:** ​Client

**Sent:** Monday, 01 August 2023 10:44 AM

**To:** ​Studio ​

**Subject:** ​Small Game Application

Dear Studio​

I want to develop a small game application.  
The game can be 2D or 3D, and it should feature GUI components such as text and buttons.  
I want it to have a Main menu, Options menu and Pause menu too.

The player can also save their high-score.

Kind regards

**​​Client**

m: 0491 000 000

**Getting ready for the roleplay:**

* Organise a meeting with the Client to clarify requirements (Teacher is the client in this scenario)

Use this table to prepare and write down your questions to remind yourself of what to ask:

|  |  |  |
| --- | --- | --- |
| Ask a question about: | Question to ask Client | |
| **The programming language to be used for the project** |  |
| **Organisational (Legal) standards and guidelines applicable to the project** |  |
| **Save file formats to be used in the project** |  |
| **Clarify naming conventions of C#** |  |
| **Clarify menu and options menu functionality** |  |
| **Clarify additional required functionality of the project** |  |

**Task 1.2: Complete the Design Document - Requirements**

Once you have met with the Client and confirmed the requirements of the project, complete the required sections of the Design Document.

Save the Design Document as per company naming conventions (**Yourname\_Software\_Design\_Document.docx**).

**Task 2: Design the application**

**Task 2.1: Complete the Design Document - GUI Layout**

Design and document GUI (Graphical User Interface) Layouts and components within the GUI section of the Design Document according to Industry Standards and organisational procedures.

**Task 2.2: Complete the Design Document – Events and Behaviours**

Document and define the design of the GUI user requirements, actions, and events within the Events and Behaviours section of the Design Document in response to the applications specifications and organisational procedures.

**Task 2.3: Complete the Design Document – Save System**

Design and document how you will write algorithms used to reading and writing text files during the saving process of the application within the Save System section of the Design Document.

**Task 3: Develop the application**

**Task 3.1: Develop the application - Prototype**

You will need to develop a prototype (a simple unpolished version) of the project.

This prototype should contain all the data types, basic functionality and data structures needed to code the program the features of the application.

Following the studios standards, you are to create clear and meaningful code comments to express what your systems are doing.

The prototype will need to apply sting manipulation to be able to read and write from text files using basic syntax rules.

**Task 3.2: Complete the Design Document – Testing and Feedback**

Once your prototype is built you will need to Test and confirm overall functionality meets the requirements. Test the application using various debugging techniques, including documenting the errors and their fixes inside the Testing section of the Design Document.  
Get two peers to play test the application and provide feedback on functionality.

Document all actions carried out as a result of tests performed and feedback received.

**Task 3.3: Develop the Application – Final Implementation**

After testing and feedback iterate designs and build of the application until test results meet requirements. Confirm and develop application to meet all specifications. Create a final build of the application.

**Task 3.4: Complete the Design Document – Client Sign off**

Present application to Client according to organisational procedures to obtain feedback and sign off for finished application.

**Submitting the application:**

* Client clarification questions and meeting minutes
* Finished Design Document
* Prototype Build
* Finished Build
* All working files Zipped.
  + Assets
  + Packages
  + Project Settings

## Assessment Feedback

*NOTE: This section must have the Teacher/Assessor and student signature to complete the feedback. If you are submitting through the TAFE NSW online learning platform, your Teacher/Assessor will give you feedback via the platform.*

### Assessment outcome

Satisfactory

Unsatisfactory

**Assessor feedback**

Has the Assessment Declaration for this assessment event been signed and dated by the student?

Are you assured that the evidence presented for assessment is the student’s own work?

Was reasonable adjustment in place for this assessment event?

*If yes, ensure it is detailed on the assessment document.*

*Comments*:

### Assessor name, signature and date:

### Student acknowledgement of assessment outcome

*Would you like to make any comments about this assessment?*

### Student name, signature and date