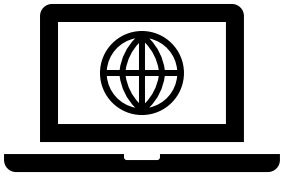
Bridging Work for AAQ Computing: Application Development



Welcome to the Computing qualification. You will be studying the AAQ Level 3 Extended Certificate in Computing: Application Development. The qualification is suited to students who:

- want to develop applied knowledge and skills in application development.
- Want to progress onto other related study, such as higher education courses in Computer Science, Computer Games Development, Computing, Creative Computing, Web and Mobile Development, Web and User Experience Design.

This qualification includes **five** units as outlined below:

Mandatory Units	Elective Units
F160: Fundamentals of Application Development (Assessed by exam) **F161:** Developing Application Software (Assessed by exam) **F162:** Designing and Communicating UX/UI Solutions (*Assessed coursework*)	***These units have been selected by the centre to complement your AAQ qualification:*** **F164:** Website Development (*Assessed by coursework*) **F166**: Software Development (*Assessed by coursework*)

The work that is highlighted for you to complete in this bridging unit is designed to help you prepare for studying this course. You will need to complete each section and bring in evidence of this in September to show to your Computing teacher. **You must attempt all tasks.**

Task 1: Building Logic – A Number Guessing Game

Objective: Develop an understanding of basic input/output, loops, conditional logic.

Task:
Design a Python program that:

- Randomly selects a number between 1 and 100.
- Asks the user to guess the number.
- Gives hints ("Too high", "Too low") until the user gets it right.
- Displays the number of attempts.

Extension: Add error-checking to ensure the user inputs only valid numbers only.

Written Reflection (100 words):
Explain how conditional statements (if, elif, else) were used to guide the flow of your program.

Save your source code and refection in a word document labelled with name and task:

Example → **JBrownTask1.dox**

Task 2: Exploring User Experience (UX) and User Interaction (UI)

You will design a PowerPoint presentation highlighting your research findings on the following areas of application development. This will prepare you for understanding how users interact with software — a vital skill in both exam-based and project-based units.

Slide 1: Title Slide

- Your name
- Course: AAQ Level 3 Computing – Application Development

Slide 2: What is UX (User Experience)?

- Define **User Experience**
- Explain its importance in software and web applications
- Give a real-life example of good or bad user experience

Slide 3: What is UI (User Interface)?

- Define **User Interface**
- List common UI elements
- Explain how UI contributes to overall user experience

Slide 4: UX vs UI – What's the Difference?

- Compare UX and UI (can be in table or bullet format)
- Describe how they work together in an application

Slide 5: Principles of Good UX Design

- Usability
- Accessibility
- Feedback (e.g., error messages, loading indicators)
- Simplicity and clarity

Slide 6: Examples of Good UX/UI

- Choose **one mobile app or website** you use often
- Describe what works well in terms of UX and UI
- Include screenshots or photos (optional)

Slide 7: Your Own App Concept (Creative Task)

- Imagine you are designing a **student planner app**
- Briefly describe how you would make it:
    - Easy to use (UX)
    - Visually appealing (UI)
- Sketch or describe 2-3 features (e.g., calendar, to-do list)

Task 3 | Course MOOC in software Development

The following course is free for you to explore some advanced Computer Science concepts that will be explored in your AAQ qualification. You are allowed to enrol for free and is self-paced.

Complete the activities and content that they explore and then complete a reflection on those ideas in a word document.

Edx URL - IPL: UX/UI Design Fundamentals | edX

Be sure to select the option "Audit Course" to access the free version.

Be sure to capture evidence of your learning through screenshots and reflection notes.