Assessment Tool

Qualification national code and title	ICT50120 Diploma Information Technology (Advanced Programming)
Cluster	Advanced Mobile Applications
Unit/s national code/s and title/s	ICTPRG549 Apply Intermediate Object Orientated Language Skills ICTPRG603 Develop Advanced Mobile Multitouch Applications

Assessment type (☑):

☐ Questioning (Oral/Written)

☒ Practical Demonstration

☐ 3rd Party Report

☒ Other – Project/App

Assessment Resources:

Visual Studio Community Edition 2019
Android SDK / Emulator / Physical Device
Design Software of choice (Photoshop/InDesign/XD) **OR** physical materials
Flutter SDK

Assessment Instructions:

This assessment requires you to take the understanding of mobile development that you have developed through the delivery and apply them towards a project. You are being assessed on all elements of ICTPRG549 and ICTPRG603 across three parts.

To complete this assessment, you must follow all session materials from session 1 through to session 8. Each session tackles an aspect of the portfolio and its implementation. Adding each element to the larger Todo application. By the end of the 8 Sessions, you will have all the pieces for the app to run and a completed Todo app.

Due Date:
End of week 10

1. Complete all the assessment tasks below.
2. Observation by your lecturer of you doing the assessment is considered part of the assessment process.
3. Submit your documentation into the Blackboard assessments area.
4. All skills must be demonstrated to achieve a satisfactory result.
5. All work submitted must be your own individual effort.

Assessment Instrument:

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Assessment 1 – Portfolio

This assessment covers a lot of the practical elements of building advanced mobile applications. It involves working through the materials and completing the tasks outlined below in the appendix. Your task is to develop a cross platform application using the flutter framework for mobile. This portfolio pieces serves as an introduction into flutter that will then be applied in the final assessment project for your client.

As part of the project, you will cover the following tasks which have been mapped back to elements of the unit of competencies:

1. Set up and manage the development environment
    a. Customise build and packages for the application
    b. Separate application into logical units and bundle files for easy import and export
2. Development
    a. Build an application with object orientated design principles using flutter Widgets.
    b. Implement a reactive, event driven, state management architecture using a pattern for flutter.
    c. Implement data storage facilities
        i. Connect to a database
        ii. Update structure of database.
        iii. Persist and write to file storage.
        iv. Use binary data.
    d. Connectivity
        i. Use Internet connectivity
        ii. Application must interact with an API
    e. Design application according to device code specifications (Appendix A)
3. Testing
    a. Show testing and tracing of running code
    b. Example variable contents at run time.
    c. Test using emulation and physical device.

Zip up your completed flutter application and with all elements above to blackboard before the due date.