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ICT40515 Certificate IV in Programming

Develop a UI to interact with a database

**SP6/Module 9 Assessment**

ICTPRG403 Develop data-driven applications

ICTICT420 Develop client user interface

ICTPRG410 Build a user interface

Assessment: 33130/03

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**Assessment task 33130/02**

## Introduction

This assessment will test your skills and knowledge gained through completing the learning and activities in **Module 9: Develop a UI to interact with a database.**

This is a three-part assessment.

In the first part of the assessment, you will analyse a requirements brief to design and develop user interfaces for a number of screens.

In the second part, you will write code for the screens developed in the first part of the assessment to connect and interact with a database.

In the third part of the assessment, you will answer a number of questions, which will test your knowledge on developing and building a user interface, and developing a data driven application.

**Note – you must successfully complete ALL assessments (33130/01, 33130/02 and 33130/03) to achieve competency in:**

***ICTPRG403 Develop data-driven applications***

***ICTICT420 Develop client user interface***

***ICTPRG410 Build a user interface***

**Short answer questionnaire**

Answer each of the twelve (12) questions. Do not write more than 100 words for each question.

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Provide answers in the space under each question.

1. Detail considerations of UI design regarding batch procedures.

Answer:

1. Research and discuss current industry design principles including GUI and web design.

Answer:

1. Research and identify general features and capabilities of current industry-accepted hardware and software products and user interfaces.

Answer:

1. Describe a multi-layer application and identify the layers.

Answer:

1. Research and describe disconnected data management strategy.

Answer:

1. Describe the features of object-oriented design and multi-layer applications.

Answer:

1. Provide an outline of relational database management systems.

Answer:

1. Describe object-oriented programming at an intermediate level.

Answer:

1. Outline the principles of a Structured Query Language (SQL)

Answer:

1. Name an open source Integrated Development Environment (IDE) that you have used and how you used it.

Answer:

1. Describe the process of developing small-size applications.

Answer:

1. Explain the function of the Data Access Layer (DAL) in a multi-layer application. Name two data-access application programming interfaces(API) for connecting to a database and how you would determine which API to use.

Answer:

**Next steps for you:**

You have now reached the end of this assessment.

Ensure that you have answered all of the above questions.

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Your trainer will provide you with feedback for this assessment.