**NZQA**

**Approved**

Achievement standard: 91368 Version 3

Standard title: Implement advanced procedures to produce a specified digital information outcome with dynamically linked data

Level: 2

Credits: 6

Resource title: Hotel database

Resource reference: Digital Technologies VP-2.41 v2

Vocational pathway: Services Industries

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| Quality assurance status | These materials have been quality assured by NZQA. NZQA Approved number A-A-02-2015-91368-02-8237 |
| Authenticity of evidence | Assessors/educators must manage authenticity for any assessment from a public source, because learners may have access to the assessment schedule or exemplar material.Using this assessment resource without modification may mean that learners’ work is not authentic. Assessors/ educators may need to change figures, measurements or data sources or set a different context or topic to be investigated or a different text to read or perform. |

Vocational Pathway Assessment Resource

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Learner instructions

# Introduction

This assessment activity requires you to implement advanced procedures to produce a database with dynamically linked data for a hotel.

You are going to be assessed on how efficiently you implement advanced procedures to produce a database with dynamically linked data for a hotel.

The following instructions provide you with a way to structure your work to demonstrate what you have learnt to allow you to achieve success in this standard.

Assessor/educator note: It is expected that the assessor/educator will read the learner instructions and modify them if necessary to suit their learners.

# Task

You are required to design and create a client database for a hotel. The hotel would like to use this database to send out letters with promotions, and provide information for a report that will be given to the General Manager. Your accuracy, efficiency and independence in the way you apply advanced tools, techniques and testing procedures will be assessed as you go about designing and creating this database.

The database will contain the following information for each guest that has stayed at the hotel:

* Name
* Contact details (address, mobile phone number, email)
* Gender
* Date of stay
* Length of stay
* Daily tariff paid (the price paid per each day for accommodation)
* Extras (extras could include; movies, mini bar, food and beverage, phone calls, laundry)
* Total spent
* Reason for stay (business or personal)
* Name of rewards programme they are part of, if applicable.

Your assessor/educator will provide the data for input.

## Part 1: Data and specifications

Your database must use a selection of advanced database procedures, and your report and letters must use a selection of advanced word processing procedures.

Specifications:

* effective design principles to be used on all documents
* custom styles to be used in the report
* report designed to be easily updated each year
* letters designed to be folded to DLE size for mailing
* letters suitably formatted.

## Part 2: Create database, report, and letters

Use your selected software to create a database that is dynamically linked to the report and letters, and that adheres to the agreed specifications.

Use your database to create the following queries and integrate these, where appropriate, into the report and letters. Ensure that you address any legal, ethical and moral issues related to your database and other documents.

### Queries

You will need to decide on the most efficient way to create queries and the most appropriate format for displaying this information.

Loyalty:

Create a query of business guests for the General Manager, who would like to know the names of business guests who stayed 4 nights or more in the last year. This information will need to be sorted in order with the longer stays at the top.

Occupancy:

The General Manager needs to know the total number of guests that have stayed during the year and their customer type, such as those staying on business, and those staying for personal reasons.

Spend:

Create a query of guests who stayed for personal reasons. The General Manager would like to know the names and contact details of 10 guests who stayed for personal reasons and spent the most in the hotel (total spend) during their stay. This will need to be sorted in order from greatest spend to the least.

Rewards scheme:

Create a query of guests who have stayed at the hotel in the past 6 months for more than 3 nights. The query must exclude those who are part of a rewards scheme.

Infrequent customers:

Create a query of guests who have not stayed at the hotel in the last 6 months.

### The General Manager’s monthly report to the board

Your assessor/educator will provide the content for the report. You will also include information from the loyalty query, occupancy query and the total spend query.

### Letter One

Your assessor/educator will provide the content for the letter. You will also include information from the loyalty and spend queries.

Rewards Scheme:

Letter One is to be sent to all customers who have stayed at the hotel for more than three nights in the last six months. It must exclude all those who are currently part of a rewards scheme.

### Letter Two

Your assessor/educator will provide the content for the letter.

Infrequent Customers:

Letter Two is to go to all customers who have not stayed at the hotel during the past six months. The letter will outline the current specials – complimentary breakfast for each night stayed at the hotel and late check-out. The letter will be emailed to those who have an email address on the database and sent to the physical address of the others.

## Part 3: Testing and publication

Test your database during development. During the task, keep records of what you do, including the results of all testing. When you have finished, save the final version of your outcome (using a suitable medium) and print a hard copy. Give copies of all documents to your assessor/educator along with copies of:

* data that is linked to your final outcome, for example the form used for your database, query results
* your record (log) of what you did and what happened at each stage
* any other documents that you created as you developed your final outcome.

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Assessor/Educator guidelines

# Introduction

The following guidelines are supplied to enable assessors/educators to carry out valid and consistent assessment using this internal assessment resource.

As with all assessment resources, education providers will need to follow their own quality control processes. Assessors/educators must manage authenticity for any assessment from a public source, because learners may have access to the assessment schedule or exemplar material. Using this assessment resource without modification may mean that learners' work is not authentic. The assessor/educator may need to change figures, measurements or data sources or set a different context or topic. Assessors/educators need to consider the local context in which learning is taking place and its relevance for learners.

Assessors/educators need to be very familiar with the outcome being assessed by the achievement standard. The achievement criteria and the explanatory notes contain information, definitions, and requirements that are crucial when interpreting the standard and assessing learners against it.

# Context/setting

This activity requires learners to create a database and link this to word-processed documents to create a report and letters.

The task requires learners to demonstrate efficient implementation of advanced procedures to produce a hotel database with dynamically linked data.

# Conditions

You are required to assess the ways in which the techniques are implemented, as well as the quality of the outcome, so learners should complete all their practical work in the presence of their assessor/educator.

This is an individual assessment task.

# Resource requirements

Assessors/educators will need to provide learners with the data for input and associated text for the report and letters. This needs to be provided in a format such as CSV, text or PDF so that learners can choose the most appropriate applications.

# Additional information

The outcome could equally be a database and accompanying newsletter or a database driven website. It could also be an outcome trialled through technological practice that the learner is now ready to create in its final form.

# Assessment schedule: Digital Technologies 91368 – Hotel database

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| Evidence/Judgements for Achievement | Evidence/Judgements for Achievement with Merit | Evidence/Judgements for Achievement with Excellence |
| The learner implements advanced procedures to produce a database dynamically linked to a report and letters by:* designing and creating a database with field types that meet data requirements

For example:The learner designs and creates a database for the hotel that meets specifications. The field types chosen are appropriate for the data type (e.g. date formatting is used for the date stated).The learner creates a database with advanced procedures by:* + creating multiple criteria queries, using logical, mathematical and/or wildcard operators
	+ customising reports and forms
	+ setting validation rules to restrict what users can enter in a given field, such as expressions or operators.

The learner creates reports and letters that use advanced procedures from word processing by:* + applying custom styles
	+ applying section breaks
	+ object linking and embedding
	+ creating templates.

There are some inaccuracies in the content, e.g. capitalisation and spelling errors. All queries are executed accurately.* using tools of the software to integrate data from a database and at least one other software application using dynamic linking

For example:The learner merges the guest names and addresses into the individual letters and excludes those currently with the rewards scheme.* applying design elements and/or formatting techniques as suited to the outcome

For example:The learner applies some design elements, e.g. contrasting fonts for headings and content. The report is balanced and letters are correctly formatted.* applying data integrity and testing procedures to ensure the outcome meets the specifications

For example:The learner uses a number of testing techniques, such as functional testing, data verification, testing and evaluating program design and structure, table structure check, referential integrity, fully entered data in the correct format (e.g. to prevent numeric data being entered into a text field) and pretesting – populate a test database (e.g. validates that the query outcomes are correct before using information to link with other documents such as the report and letters), checking that documents are going to the correct categories of people.The learner uses print preview and actual printouts to check that data is displayed correctly and that the letters and report print out as intended.* following legal, ethical, and moral responsibilities as appropriate to the outcome

For example:The learner correctly acknowledges the source of the material used and the copyright owner of the photographs that may have been used. The report demonstrates that the learner has considered the privacy of information stored in the database by not revealing any contact details of other people or firms who receive the letters.*The above expected learner responses are indicative only and relate to just part of what is required*. | The learner skilfully implements advanced procedures to produce a database dynamically linked to a report and letters by:* designing and creating a database with field types that meet data requirements
* showing independence with regard to decision making and accuracy in the application of techniques, design elements and procedures

For example:The learner independently designs and creates the database for the hotel using the data provided. The field types chosen are appropriate for the data type (e.g. date formatting is used for the date stated).Advanced procedures are used by:* + creating multiple criteria queries, using logical, mathematical and/or wildcard operators
	+ customising reports and forms
	+ setting validation rules to restrict what users can enter in a given field, such as expressions, operators.

The learner independently creates reports and letters that use advanced procedures from word processing by:* + applying custom styles
	+ applying section breaks
	+ object linking and embedding
	+ creating templates.

Content is accurate, e.g. capitalisation, spelling, and all queries are executed accurately and independently.The learner independently applies the design elements to comply with commonly accepted codes of practice, and uses styles plus alignment, contrast etc., to ensure accuracy.* applying correct data integrity and testing techniques

For example:The learneraccurately uses a number of testing techniques, such as functional testing, data verification, testing and evaluating program design and structure, table structure check, referential integrity, fully entered data in the correct format (e.g. to prevent numeric data being entered into a text field) and pretesting – populate a test database (e.g. validates that the query outcomes are correct before using information to link with other documents such as the report and letters), checking that documents are going to the correct categories of people.The learner uses print preview and actual printouts to check that data is displayed correctly and that the letters and report print out as intended.The learner checks data input is accurate in the database and auto-checks the mail merge to ensure the report is on the correct number of pages and the page breaks and section breaks are as planned prior to printing. The learner checks that queries in the database work.* following legal, ethical, and moral responsibilities as appropriate to the outcome

For example:The learner correctly acknowledges the source of the material used and the copyright owner of the photographs that may have been used. The report demonstrates that the learner has considered the privacy of information stored in the database by not revealing any contact details of other people or firms who receive the letters*.**The above expected learner responses are indicative only and relate to just part of what is* required. | The learner efficiently implements advanced procedures to produce a database dynamically linked to a report and letters by:* designing and creating a database with field types that meet data requirements
* showing independence with regard to decision making and accuracy in the application of techniques, design elements and procedures
* undertaking techniques and procedures in a manner that economises the use of resources in the outcome’s production and its use, e.g. timely fashion, optimises the specific features of tools, and the application of dynamically linked data

For example:The learner independently and efficiently designs and creates the database with advanced procedures by:* + creating multiple criteria queries, using logical, mathematical and/or wildcard operators
	+ customising reports and forms
	+ setting validation rules to restrict what users can enter in a given field such as expressions, operators.

The learner independently creates reports and letters that use advanced procedures from word processing by:* + applying custom styles
	+ applying section breaks
	+ object linking and embedding
	+ creating templates.

Content is accurate, e.g. capitalisation, spelling, and all queries are executed accurately and independently.The learner independently applies the design elements to comply with commonly accepted codes of practice, and uses styles, plus alignment, contrast etc., to ensure accuracy.The learner creates the report and letters in a straightforward manner, not through trial and error. The learner follows a logical process, which they map out as a schedule on their own before they begin. Prior to building the database, the learner considers what information is required in queries and sets this up in a logical and straightforward manner within the database.The learner uses database tools and shortcuts.The learner uses the primary key function on the database to allow for easy verification, and linking and checking of records.The learner is able to easily pick up on their development at the beginning of each session as they had saved versions in an easily accessible manner. They plan their tasks for each period and get on with them.The manner in which the report and letters are laid out shows an economic use of paper. Black and white drafts are used when testing, and printing of drafts is only carried out as necessary.* applying correct data integrity and testing techniques

For example:The learner accurately uses a number of testing techniques, such as functional testing, data verification, testing and evaluating program design and structure, table structure check, referential integrity, fully entered data in the correct format (e.g. to prevent numeric data being entered into a text field) and pretesting – populate a test database (e.g. validates the query outcomes are correct before using information to link with other documents such as the report and letters), checking that documents are going to the correct categories of people.The learner uses print preview and actual printouts to check that data is displayed correctly and that the letters and report print out as intended.The learner checks data input is accurate in database and auto-checks the mail merge to ensure the report is on the correct number of pages and the page breaks and section breaks are as planned prior to printing. All queries are checked and confirmed.* following legal, ethical, and moral responsibilities as appropriate to the outcome

For example:The learner correctly acknowledges the source of the material used and the copyright owner of the photographs that may have been used. The report demonstrates that the learner has considered the privacy of information stored in the database by not revealing any contact details of other people or firms who receive the letters*.**The above expected learner responses are indicative only and relate to just part of what is* required. |

Final grades will be decided using professional judgement based on an examination of the evidence provided against the criteria in the Achievement Standard. Judgements should be holistic, rather than based on a checklist approach.