

UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS

**Cambridge International Diploma in ICT
Foundation Level**

Scheme of Work

5185
Database Operations
Optional Module



UNIVERSITY *of* CAMBRIDGE
International Examinations

Introduction

This Optional Module is about using database facilities to organise and present data in order to solve problems.

What is assessed in this Module?

- loading data from an existing file
- entering data
- editing data
- deleting data
- sorting data
- selecting subsets of data
- producing a report
- saving and printing data

Tutor Preparation Required to Deliver this Module

You will need:

- access to a database package for all students
- access to printer facilities for all students
- prepared database files, ready for students to edit, reorganise and produce reports from
- prepared data files for students to load
- prepared instruction sheets for each activity
- examples illustrating the use of databases in everyday life (printed, for display or reference)

You will also need to ensure that the problems you set can all be answered with the particular database you have created.

You will need to check the solutions to any database queries or problems you set.

Underpinning Knowledge

- how databases are used in everyday life
- basic word-processing skills

General Principles and Procedures

Students should begin by modifying an existing database, then move on to sorting data, selecting subsets of data and producing reports. Creating a database and loading data from an existing file are best left until last.

Teachers should aim to demonstrate and encourage good practice in setting up and using databases:

- when creating a database, it is important to consider what uses will be made of data and what operations may need to be performed before defining fields and their properties
- where the database allows control of the layout, data entry forms and reports should be uncluttered and have clear, well-positioned labeling to help users
- it is a good idea to save before carrying out any unfamiliar operation on a database, or any reorganisation of data

Scheme of Work

Assessment Objectives	Performance Criteria	Classroom ideas	Resources	Notes
Database Operations				
Session Plan One				
<ul style="list-style-type: none"> enter data edit data delete data sort data save and print data 	1.2.1 2.1.1 2.2.1 3.1.1 5.1.1	<ul style="list-style-type: none"> introduction - databases in everyday life updating a database reorganising: sorting data 	<ul style="list-style-type: none"> access to database facilities prepared database prepared instructions printed examples illustrating the use of databases in everyday life, for display or reference access to printer 	<ul style="list-style-type: none"> key terms: database, record, field, search/find, sort, criteria, ascending, descending, alphabetic, numeric the printed examples used in the introduction can also be referred to in later sessions on data entry and reports the introductory activity should be kept short (30-40 minutes at most), to allow sufficient time to begin work on a database remind students to save before sorting data if the database does not save automatically
Session Plan Two				
<ul style="list-style-type: none"> select data produce a report save and print data 	3.2.1 4.1.1 5.1.1	<ul style="list-style-type: none"> using the database to solve a problem 	<ul style="list-style-type: none"> access to database facilities prepared database prepared instructions - printed or sent via email access to printer 	<ul style="list-style-type: none"> key terms: select/filter, report the problem is divided into two parts: finding the information and then producing a suitable report. It is given a context (a query from a colleague or customer) to make it more interesting

Assessment Objectives	Performance Criteria	Classroom ideas	Resources	Notes
Session Plan Three				
<ul style="list-style-type: none"> load data from an existing file select data produce a report save and print data 	1.1.1 3.2.1 4.1.1 5.1.1	<ul style="list-style-type: none"> setting up a database and loading data from an existing file 	<ul style="list-style-type: none"> access to database facilities prepared CSV file for students to load prepared instructions printed examples of 'real life' data entry forms access to printer 	
Session Plan Four				
<ul style="list-style-type: none"> all 	all	<ul style="list-style-type: none"> review and/ or completion of activities specimen paper 	<ul style="list-style-type: none"> access to database facilities access to printer prepared individual progress review sheet specimen paper for each student access to relevant files and printed instructions to enable completion of any unfinished activities 	<ul style="list-style-type: none"> keep the review session brief: use it to identify individual priorities for action during this session and the next
Session Plan Five				
<ul style="list-style-type: none"> all 	all	<ul style="list-style-type: none"> debrief further practice 	<ul style="list-style-type: none"> marked papers for return to individual students prepared 'model' answers for the paper 	<ul style="list-style-type: none"> use the debrief to reinforce understanding of key points and to identify priorities for each student to work on in the remainder of the session

Assessment Objectives	Performance Criteria	Classroom ideas	Resources	Notes
Session Plan Six				
<ul style="list-style-type: none"> undertake Database Operations Assessment 	all	<ul style="list-style-type: none"> Database Operations Assessment 		