



RELATIONAL DATABASES

5205/A

Optional Module: Practical Assessment

2007

1 hour plus 15 minutes reading time

Additional Materials: Candidate Source Files

READ THESE INSTRUCTIONS FIRST

Candidates are permitted **15 minutes** reading time before attempting the paper.

Make sure that your **Centre number, candidate number and name** are clearly visible on **each printout** that you are asked to produce, before it is sent to the printer.

Carry out **every** instruction in each task.

Tasks are numbered on the left hand side of the page, so that you can see what to do step by step. On the right hand side of the page for each task, you will find a box which you can tick (✓) when you have completed the task; this checklist will help you to track your progress through the assessment.

Before each printout you should proof-read the document to make sure that you have followed all instructions correctly.

At the end of the assignment put **all** your printouts into the Assessment Record Folder.


This document consists of **4** printed pages.





You are working at the Tawara Pleasure Ferry Company. You are going to analyse some of the company's data and produce reports.



- 1 Using a suitable software package, create a new database. 1.1.1
- 2 Import the files **ARDA7BTS.CSV**, **ARDA7TRP.CSV** and **ARDA7PRC.CSV** 1.2.1
1.2.2
1.3.1
2.1.1

You will need to use the following information to create the tables:

 denotes primary key

ARDA7BTS	
Field Name	Type
 FerryNo	Integer
FerryName	Text

ARDA7TRP	
Field Name	Type
 TripNo	Integer
FerryNo	Integer
Date	Date
Season	Text
TimeOfDay	Text
Passengers	Integer

ARDA7PRC	
Field Name	Type
 Season	Text
 TimeOfDay	Text
Price	Number 2dp

Note that in the table ARDA7PRC the primary key is made from two fields.

- 3 Establish the following One-to-Many Relationships: 2.1.2
- ARDA7BTS.FerryNo* 1----∞ *ARDA7TRP.FerryNo*
- ARDA7PRC.Season* 1----∞ *ARDA7TRP.Season*
- ARDA7PRC.TimeOfDay* 1----∞ *ARDA7TRP.TimeOfDay*
- 4 Search for only those trips which took place during the **Winter** on the ferry **Tawara Orchid** 3.1.2
3.2.2
4.1.1
5.1.1

You will need to use the *Season* and *FerryName* fields to find this information.

For each trip, print the *FerryName*, *Season*, *TimeOfDay* and *Date* in ascending order of *TimeOfDay*, then ascending order of *Date*

Print out this list.

Make sure that your name and today's date are printed.

You are going to prepare a report which shows details of afternoon cruises on *Tawara Orchid*.

5 From all the records, select only the **Afternoon** cruises which were on **Tawara Orchid** 3.1.2

6 Prepare and print a grouped report which: 4.1.1
 • has a report header **Afternoon Cruises on Tawara Orchid** 4.1.2
 • groups the data by *Season* 4.1.3
 • shows the *Season* as a group header 5.1.1
 • has detail rows displaying *Date*, *TimeOfDay*, *Price*, *Passengers*
 • shows the total income for each season (sum of price multiplied by passengers for each cruise)
 • displays your name and today's date at the end

Your report may look something like this:

Afternoon Cruises on Tawara Orchid

Autumn		Price	Passengers	
	10/01/2007 Afternoon	99.99	999	
				99999.99
Spring		Price	Passengers	
	10/01/2007 Afternoon	99.99	999	
	10/01/2007 Afternoon	99.99	999	
	10/01/2007 Afternoon	99.99	999	
				99999.99
Summer		Price	Passengers	
	10/01/2007 Afternoon	99.99	999	
	10/01/2007 Afternoon	99.99	999	
				99999.99
Winter		Price	Passengers	
	10/01/2007 Afternoon	99.99	999	
	10/01/2007 Afternoon	99.99	999	
	10/01/2007 Afternoon	99.99	999	
				99999.99

John Smith 10 January 2007

You are now going to prepare a report which summarises some information about the number of passengers per season on each ferry.

- 7 From all the records, select details of the trips on each ferry. Include only the fields *FerryName*, *Season*, *Passengers* 4.1.1
- 8 Using this data, create a cross-tab (pivot table) which shows *Ferry* as row labels and *Season* as column headings. Show the total number of passengers per ferry per season. 4.2.1
- 9 Add the title **Summary – Trips per ferry**, your name and today's date to the report and then print it. 5.1.1

Your report may look something like this:

Summary – Trips per ferry				
Ferry	Autumn	Spring	Summer	Winter
Tawara Iris	9999	9999	9999	9999
Tawara Lotus	9999	9999	9999	9999
Tawara Orchid	9999	9999	9999	9999
Tawara Rose	9999	9999	9999	9999
Tawara Violet	9999	9999	9999	9999

John Smith 10 February 2007

Permission to reproduce items where third-party owned material protected by copyright is included has been sought and cleared where possible. Every reasonable effort has been made by the publisher (UCLES) to trace copyright holders, but if any items requiring clearance have unwittingly been included, the publisher will be pleased to make amends at the earliest possible opportunity.

University of Cambridge International Examinations is part of the Cambridge Assessment Group. Cambridge Assessment is the brand name of University of Cambridge Local Examinations Syndicate (UCLES), which is itself a department of the University of Cambridge.