

LAB 3: Queries

Introduction

In this lab you will practice using SQL to query the GCUTours database.

Download the file **gcutours.mdb** from your course web site. Start up Microsoft Access and open gcutours.mdb.

Create a new Word document called **comu114_lab3.doc**. You will use this document to record all the SQL statements you use in this lab.

Create a new query in Design View, and close the Show Tables dialog without adding any tables. Save the query as *Lab 3 Query*. Now switch to **SQL View**.

Task

In each of the following questions you are given a description of the data you are required to get from the database, and a listing of the result which your query should return.

For each question, type the **SQL statement** in *Lab 3 Query* and **run the query** to test it. You will probably sometimes need some trial-and-error before you get the correct result.

Enter the question number in each case into your Word document and copy and paste the SQL statement which gave the correct result

1. List all details about mailing lists

mailinglistID	title	description
1	Special Offers	Details of the latest offers and discounts from GCUTours
2	Travel News	New tours, new destinations and news from the travel industry
3	Travel Tips	Advice and tips from our travel experts to help you enjoy your holidays
4	Travellers' Tales	Our customers share their experiences and adventures

2. List the username and date joined for all users in order of date joined, most recent first

username	dateJoined
sdechamp	28/09/2007
ferdy	29/08/2007
vdagama	28/08/2007
(etc)	
jcook	16/12/2005
dave	12/11/2005
bart	03/04/2005

some rows have been missed out to save space here – your result should begin and end with the rows shown

3. List the location and name of all packages in ascending order of location then adult price

location	name
Asia	Trans-Siberian Express
Asia	Rising Sun Explorer
Asia	Roof of the World Explorer
Asia	Borneo Explorer
Australia	Reef and Outback Adventure
Europe	Glacier Expedition
Europe	Alpine Action
South America	Patagonia Trek
South America	Amazon & Inca Adventure
USA	Raft the Grand Canyon
USA	Colorado Winter Adventure
USA	Western Adventure

4. List the username of each user who has booked a tour

username
ferdy
mpolo
vdagama

5. List all details of the Western Adventure package

packageID	location	name	description	adultprice	childprice	departure	sales
1	USA	Western Adventure	A typical tour is our Western Adventure tour, featuring activities which can include white water rafting on the Colorado river, desert exploring, horse riding in the Wild West.	£1,499.00	£999.00	Glasgow	314

6. Find the username of the booking with bookingID 4

username
vdagama

7. List the tourID of all tours where the offer is more than 10%

tourID
1
4
6
7
9
13
17

8. List the name and location of all packages with sales between 200 and 300 (hint: you can do this with > and < operators, or with the *BETWEEN .. AND ..* operator – try both)

name	location
Reef and Outback Adventure	Australia
Borneo Explorer	Asia

9. List all details of all users who joined in August 2007

firstname	lastname	address	username	password	datejoined
Ferdinand	Magellan	1520 Pacific Heights	ferdy	pwd	29/08/2007
Marco	Polo	1 Silk Road	mpolo	passwd	27/08/2007
Vasco	daGama	1460 Hope Street	vdagama	password	28/08/2007

10. List the first and last names of users whose password is null (*hint: you'll need to use the condition IS NULL*)

firstname	lastname
Christopher	Columbus
Gaspar	Corte Real
Roald	Amundsen

11. Find the full names of the users with initials F.M. (there's actually only one)

firstname	lastname
Ferdinand	Magellan

12 Search for ski holidays - list the location and name of all packages which have the word 'ski' in the description

location	name
Europe	Alpine Action
USA	Colorado Winter Adventure

13. List in order of last name the full names of the users whose last initial is in the range A-C.

firstname	lastname
Roald	Amundsen
Louise	Boyd
Giovanni	Caboto
Pedro	Cabral
Jacques	Cartier
Christopher	Columbus
James	Cook
James	Cook
Gaspar	Corte Real
Hernando	Cortes

14. List the names of all packages to Asia with sales more than 150 and adult price less than £1500

name
Trans-Siberian Express
Rising Sun Explorer

You will need to use **aggregates** for these queries:

15. Find the total number of package sales

Total Sales
4333

16. Find the number of users whose last initial is C.

Number of Users
8

17. Find the highest number of sales for any package to the USA

Max Sales
894

You will need to use **grouping** for these queries:

18. List the usernames and number of bookings of all users who have made bookings

username	Number of Bookings
ferdy	1
mpolo	3
vdagama	2

19. List the departure airport and adult price of the cheapest package from each departure airport, showing the results in order of price, lowest first

departure	Min Price
Glasgow	£299.00
London Gatwick	£799.00
Manchester	£1,099.00
London Heathrow	£1,199.00

20. Find the largest percentage offer on any tour for each package

packageID	Max Offer
1	15
2	20
3	25
4	30
5	15
6	5
7	25
8	0
9	15
11	10
12	0

21. Find the number of packages departing from each London airport

departure	Number of Packages
London Gatwick	2
London Heathrow	3

22. Find the package locations with average sales of more than 250

location	Average Sales
Europe	439.5
South America	277
USA	591.666666666667

You will need to use **subqueries** for these queries

23. Find (using a single query) the name and description of the best selling package to South America

name	description
Amazon & Inca Adventure	An Amazon voyage like no other on board a 19th century style riverboat capturing the essence of the Amazon heartland while exploring the majestic Ucayali and Maranon Rivers. Throw in famed Machu Picchu and you've got a perfect Inca & Amazon combination.

24. Find the full name of the user who joined at the earliest date

firstname	lastname
Bartolemeu	Dias

25. Find the package locations with average sales greater than the overall average

location	Average Sales
Europe	439.5
USA	591.666666666667

26. Use a subquery to find the package name and location for the tour with tourID = 3

name	location
Western Adventure	USA