

LAB 3: Queries (SOLUTIONS)

1. Find all details about mailing lists

SELECT * FROM MailingLists

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

SELECT username, dateJoined FROM Users ORDER BY dateJoined DESC

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

SELECT location, name FROM Packages ORDER BY location, adultPrice

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

```
SELECT DISTINCT username FROM Bookings
```

username
ferdy
mpolo
vdagama

5. List all details of the Western Adventure package

```
SELECT * FROM Packages  
WHERE name = 'Western Adventure'
```

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

```
SELECT username FROM bookings  
WHERE bookingID = 4
```

username
vdagama

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

```
SELECT tourID FROM Tours  
WHERE offer > 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)

SELECT name, location FROM Packages
WHERE sales BETWEEN 200 AND 300

name	location
Reef and Outback Adventure	Australia
Borneo Explorer	Asia

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

SELECT * FROM Users
WHERE dateJoined BETWEEN #8/1/2007# AND #8/31/2007#

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*)

SELECT firstname, lastname FROM Users
WHERE password 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)

SELECT firstname, lastname FROM Users
WHERE firstname LIKE 'F*' AND lastname LIKE 'M*'

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

SELECT location, name FROM Packages
 WHERE description LIKE '*ski*'

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.

SELECT firstname, lastname FROM Users
 WHERE lastname LIKE 'A*' OR lastname LIKE 'B*' OR lastname LIKE 'C*'
 ORDER by lastname ASC

OR

SELECT firstname, lastname FROM Users
 WHERE lastname BETWEEN 'A' AND 'D'

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

SELECT name FROM packages
 WHERE location = 'Asia' AND sales > 150 AND adultprice < 1500

name
Trans-Siberian Express
Rising Sun Explorer

15. Find the total number of package sales

```
SELECT SUM(sales) AS [Total Sales] FROM Packages
```

Total Sales
4333

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

```
SELECT Count(lastname) AS [Number of Users] FROM Users  
WHERE lastname LIKE 'C*'
```

Number of Users
8

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

```
SELECT Max(Sales) AS [Max Sales] FROM Packages  
WHERE location = 'USA'
```

Max Sales
894

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

```
SELECT username, COUNT(*) AS [Number of Bookings] FROM Bookings  
GROUP BY username
```

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

```
SELECT departure, MIN(adultprice) AS [Min Price] FROM Packages  
GROUP BY departure  
ORDER BY MIN(adultprice)
```

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

```
SELECT packageID, MAX(offer) AS [Max Offer] FROM Tours
GROUP BY packageID
```

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

```
SELECT departure, COUNT(*) AS [Number of Packages] FROM Packages
GROUP BY departure
HAVING departure LIKE 'London*'
```

departure	Number of Packages
London Gatwick	2
London Heathrow	3

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

```
SELECT location, AVG(sales) AS [Average Sales] FROM Packages
GROUP BY location
HAVING AVG(sales) > 250
```

location	Average Sales
Europe	439.5
South America	277
USA	591.666666666667

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

```
SELECT name, description FROM Packages
WHERE sales =
(SELECT Max(Sales) AS [Max Sales] FROM Packages
WHERE location = '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

```
SELECT firstname, lastname FROM Users
WHERE dateJoined =
(SELECT MIN(DateJoined) FROM Users)
```

firstname	lastname
Bartolemeu	Dias

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

```
SELECT location, AVG(sales) AS [Average Sales] FROM Packages
GROUP BY location
HAVING AVG(sales) >
(SELECT AVG(Sales) FROM Packages)
```

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

```
SELECT name, location
FROM Packages
WHERE packageID =
(SELECT packageID FROM Tours WHERE tourID = 3)
```