Review Questions

1. What is the difference between UNION and UNION ALL?

2. Suppose that you have two tables, EMPLOYEE and EMPLOYEE_1. The EMPLOYEE table contains the records for three employees: Alice Cordoza, John Cretchakov, and Anne McDonald. The EMPLOYEE_1 table contains the records for two employees: John Cretchakov and Mary Chen. Given that information, what is the query output for the UNION query? List the query output.

3. Given the employee information in question 2, what is the query output for the UNION ALL query? List the query output.

4. What are the three join types included in the OUTER JOIN classification? Describe each of the types.

Contents of the EMPLOYEE Table

EMP_NUM	EMP_LNAME	EMP_FNAME	EMP_INITIAL	EMP_HIREDATE	JOB_CODE
101	News	John	G	08-Nov-00	502
102	Senior	David	H	12-Jul-89	501
103	Arbough	June	E	01-Dec-96	500
104	Ramoras	Anne	K	15-Nov-87	501
105	Johnson	Alice	K	01-Feb-93	502
106	Smithfield	William		22-Jun-04	500
107	Alonzo	Maria	D	10-Oct-93	500
108	Washington	Ralph	B	22-Aug-91	501
109	Smith	Larry	W	18-Jul-97	501

5. Using the EMPLOYEE table shown above, write the SQL code to enter the first two rows for the table.

6. Using the EMPLOYEE table shown above, write the SQL code to change the job code to 501 for the person whose employee number is 107.

7. Using the EMPLOYEE table shown above, write the SQL code to delete the row for the person named William Smithfield, who was hired on June 22, 2004 and whose job code classification is 500.

8. Using the EMPLOYEE table shown above, write the SQL code to create a copy of EMPLOYEE table, naming the copy EMPLOYEE_2. Then write the SQL code that will add the attribute PROJ_NUM which is character with a length of 3 to its structure.

Table name: CHARTER

		CHAR_TRIP	CHAR_DATE	AC_NUMBER	CHAR_DESTINATION	CHAR_DISTANCE	CHAR_HOURS_FLOWN	CHAR_HOURS_WAIT	CHAR_FUEL_GALLONS
▶	+	10001	05-Feb-06	2289L	ATL	936.0	5.1	2.2	354.1
	+	10002	05-Feb-06	2778V	BNA	320.0	1.6	0	72.6
	+	10003	05-Feb-06	4278Y	GNV	1,574.0	7.8	0	339.8
	+	10004	06-Feb-06	1484P	STL	472.0	2.9	4.9	97.2
	+	10005	06-Feb-06	2289L	ATL	1,023.0	5.7	3.5	397.7
	+	10006	06-Feb-06	4278Y	STL	472.0	2.6	5.2	117.1
	+	10007	06-Feb-06	2778V	GNV	1,574.0	7.9	0	348.4
	+	10008	07-Feb-06	1484P	TYS	644.0	4.1	0	140.6
	+	10009	07-Feb-06	2289L	GNV	1,574.0	6.6	23.4	459.9
	+	10010	07-Feb-06	4278Y	ATL	998.0	6.2	3.2	279.7
	+	10011	07-Feb-06	1484P	BNA	352.0	1.9	5.3	66.4
	+	10012	08-Feb-06	2778V	MOB	884.0	4.8	4.2	215.1
	+	10013	08-Feb-06	4278Y	TYS	644.0	3.9	4.5	174.3
	+	10014	09-Feb-06	4278Y	ATL	936.0	6.1	2.1	302.6
	+	10015	09-Feb-06	2289L	GNV	1,645.0	6.7	0	459.5
	+	10016	09-Feb-06	2778V	MQY	312.0	1.5	0	67.2
	+	10017	10-Feb-06	1484P	STL	508.0	3.1	0	105.5
	+	10018	10-Feb-06	4278Y	TYS	644.0	3.8	4.5	167.4

Table name: CUSTOMER

		CUS_CODE	CUS_LNAME	CUS_FNAME	CUS_INITIAL	CUS_AREACODE	CUS_PHONE	CUS_BALANCE
▶	+	10010	Ramas	Alfred	A	615	844-2573	0.00
	+	10011	Dunne	Leona	K	713	894-1238	0.00
	+	10012	Smith	Kathy	W	615	894-2285	896.54
	+	10013	Olowski	Paul	F	615	894-2180	1285.19
	+	10014	Orlando	Myron		615	222-1672	673.21
	+	10015	O'Brian	Amy	B	713	442-3381	1014.56
	+	10016	Brown	James	G	615	297-1228	0.00
	+	10017	Williams	George		615	290-2556	0.00
	+	10018	Farriss	Anne	G	713	382-7185	0.00
	+	10019	Smith	Olette	K	615	297-3809	453.98

Table name: AIRCRAFT

		AC_NUMBER	MOD_CODE	AC_TTAF	AC_TTEL	AC_TTER
▶	+	1484P	PA23-250	1833.1	1833.1	101.8
	+	2289L	C-90A	4243.8	768.9	1123.4
	+	2778V	PA31-350	7992.9	1513.1	789.5
	+	4278Y	PA31-350	2147.3	622.1	243.2

Table name: MODEL

		MOD_CODE	MOD_MANUFACTURER	MOD_NAME	MOD_SEATS	MOD_CHG_MILE
▶	+	C-90A	Beechcraft	KingAir	8	$2.67
	+	PA23-250	Piper	Aztec	6	$1.93
	+	PA31-350	Piper	Navajo Chieftain	10	$2.35

9. Using the tables shown above, produce the output shown below. The output, derived from the CHARTER and MODEL TABLES, is limited to February 6, 2004. (Hint: You will need to join through another table.)

	CHAR_DATE	CHAR_DESTINATION	AC_NUMBER	MOD_NAME	MOD_CHG_MILE
▶	06-Feb-06	STL	1484P	Aztec	1.93
	06-Feb-06	ATL	2289L	KingAir	2.67
	06-Feb-06	STL	4278Y	Navajo Chieftain	2.35
	06-Feb-06	GNV	2778V	Navajo Chieftain	2.35

10. Explain the GROUP BY clause.

11. Explain the HAVING clause.

12. Explain the ROLLUP clause.

13. Explain the inner join type.