■STEP1. BASIC

Q001

• EMP 테이블 구성을 살펴보시오

이름	널?		유형
EMPNO	NOT	NULL	NUMBER (4)
ENAME			VARCHAR2(10)
JOB			VARCHAR2(9)
MGR			NUMBER(4)
HIREDATE			DATE
SAL			NUMBER(7,2)
COMM			NUMBER(7,2)
DEPTNO			NUMBER(2)

DESC EMP;

Q002

• DEPT 테이블 구성을 살펴보시오

이름	널?		유형
DEPTNO	NOT	NULL	NUMBER(2)
DNAME			VARCHAR2(14)
LOC			VARCHAR2(13)

DESC DEPT;

Q003

• SALGRADE 테이블 구성을 살펴보시오

이름	널? 유형
GRADE	NUMBER
LOSAL	NUMBER
HISAL	NUMBER

DESC SALGRADE;

Q004

• EMP 테이블 전체열을 조회하시오

4	EMPNO & ENAME	⊕ JOB	⊕ MGR	⊕ HIREDATE	⊕ SAL	⊕ СОММ	⊕ DEPTNO
1	7839 KING	PRESIDENT	Y	81/11/17	5000	(null)	Y
2	7698 BLAKE	MANAGER	,			(null)	
3	7782 CLARK	MANAGER	7839	81/05/09	2450	(null)	10
4	7566 JONES	MANAGER	7839	81/04/01	2975	(null)	20
5	7654 MARTIN	SALESMAN	7698	81/09/10	1250	1400	30
6	7499 ALLEN	SALESMAN	7698	81/02/11	1600	300	30
7	7844 TURNER	SALESMAN	7698	81/08/21	1500	0	30
8	7900 JAMES	CLERK	7698	81/12/11	950	(null)	30
9	7521 WARD	SALESMAN	7698	81/02/23	1250	500	30
10	7902 FORD	ANALYST	7566	81/12/11	3000	(null)	20
11	7369 SMITH	CLERK	7902	80/12/09	800	(null)	20
12	7788 SCOTT	ANALYST	7566	82/12/22	3000	(null)	20
13	7876 ADAMS	CLERK	7788	83/01/15	1100	(null)	20
14	7934 MILLER	CLERK	7782	82/01/11	1300	(null)	10

SELECT * FROM EMP;

Q005

• EMP 테이블의 EMPNO, ENAME, DEPTNO 열을 조회하시오

	⊕ EMPNO	⊕ ENAME	
1	7839	KING	10
2	7698	BLAKE	30
3	7782	CLARK	10
4	7566	JONES	20
5	7654	MARTIN	30
6	7499	ALLEN	30
7	7844	TURNER	30
8	7900	JAMES	30
9	7521	WARD	30
10	7902	FORD	20
11	7369	SMITH	20
12	7788	SCOTT	20
13	7876	ADAMS	20
14	7934	MILLER	10

SELECT EMPNO, ENAME, DEPTNO FROM EMP;

Q006

• EMP 테이블의 DEPTNO 열의 중복을 제거하고고 조회하시오

∯ DE	PTNO	
	30 20 10	
2	20	
3	10	

SELECT DISTINCT DEPTNO FROM EMP;

Q007

- EMP 테이블의 JOB, DEPTNO열의 중복을 제거하고 조회하시오
- JOB, DEPTNO 가 모두 중복된 데이터는 한번만 중복이 되게 하시오.

	DEPTNO
¹ PRESIDENT	10
² MANAGER	20
3 CLERK	10
4 SALESMAN	30
5 ANALYST	20
6 MANAGER	30
7 MANAGER	10
8 CLERK	30
⁹ CLERK	20

Q008

• EMP 테이블의 JOB, DEPTNO열의 중복을 제거하지 않고 그대로 모두두 조회하시오

⊕ JOB	⊕ DEPTNO
1 PRESIDENT	10
² MANAGER	30
3 MANAGER	10
4 MANAGER	20
5 SALESMAN	30
⁶ SALESMAN	30
7 SALESMAN	30
8 CLERK	30
9 SALESMAN	30
10 ANALYST	20
11 CLERK	20
12 ANALYST	20
13 CLERK	20
14 CLERK	10

SELECT ALL JOB, DEPTNO FROM EMP;

Q009

• EMP 테이블의열에에 연산식을이용하여 '연간총수입'을 조회하시오.

	A ENIANAE	A CAL	A CAL 10.COMM	A COMM
	Y	Y	T	Y
	¹ KING	5000	(null)	(null)
	² BLAKE	2850	(null)	(null)
	3 CLARK	2450	(null)	(null)
	4 JONES	2975	(null)	(null)
	5 MARTIN	1250	16400	1400
	6 ALLEN	1600	19500	300
	7 TURNER	1500	18000	0
	8 JAMES	950	(null)	(null)
	9 WARD	1250	15500	500
1	⁰ FORD	3000	(null)	(null)
1	1 SMITH	800	(null)	(null)
1	² SCOTT	3000	(null)	(null)
1	3 ADAMS	1100	(null)	(null)
1	4 MILLER	1300	(null)	(null)

SELECT ENAME, SAL, SAL*12+COMM, COMM
FROM EMP;

Q010

• EMP 테이블의 열열 더하기 연산식을이용하여 '연간총수입'을 조회하시오.

COMM	SAL+SAL+SAL+SAL+SAL+SAL+SAL+COMM 🚯	IE ∯ SAL ∯	♦
(null)	(null)	5000	1 K
(null)	(null)	2850	2 B
(null)	(null)	2450	3 C
(null)	(null)	2975	4 J(
1400	16400	IN 1250	5 N
300	19500	1600	6 A
0	18000	ER 1500	7 T
(null)	(null)	950	8 J/
500	15500	1250	9 M
(null)	(null)	3000	10 F(
(null)	(null)	800	11 S
(null)	(null)	3000	12 S
(null)	(null)	IS 1100	13 A
(null)	(null)	R 1300	14 N

Q011

• EMP 테이블의 열 별칭을 사용하여 '연간총수입'을 조회하시오.

 A =====		A	^ ==· · · ·
⊕ ENAME	∯ SAL	∯ ANNSAL	⊕ СОММ
¹ KING	5000	(null)	(null)
² BLAKE	2850	(null)	(null)
3 CLARK	2450	(null)	(null)
4 JONES	2975	(null)	(null)
5 MARTIN	1250	16400	1400
6 ALLEN	1600	19500	300
7 TURNER	1500	18000	0
8 JAMES	950	(null)	(null)
9 WARD	1250	15500	500
10 FORD	3000	(null)	(null)
11 SMITH	800	(null)	(null)
12 SCOTT	3000	(null)	(null)
13 ADAMS	1100	(null)	(null)
14 MILLER	1300	(null)	(null)

SELECT ENAME, SAL, SAL*12+COMM AS ANNSAL, COMM FROM EMP;

Q012

• EMP 테이블의 모든 열을 급여기준으로 오름차순 정렬하시오.

	⊕ EMPNO	⊕ ENAME	⊕ JOB	∯ MGR	⊕ HIREDATE	⊕ SAL	COMM	⊕ DEPTNO
1	7369	SMITH	CLERK	7902	80/12/09	800	(null)	20
2	7900	JAMES	CLERK	7698	81/12/11	950	(null)	30
3	7876	ADAMS	CLERK	7788	83/01/15	1100	(null)	20
4	7521	WARD	SALESMAN	7698	81/02/23	1250	500	30
5	7654	MARTIN	SALESMAN	7698	81/09/10	1250	1400	30
6	7934	MILLER	CLERK	7782	82/01/11	1300	(null)	10
7	7844	TURNER	SALESMAN	7698	81/08/21	1500	0	30
8	7499	ALLEN	SALESMAN	7698	81/02/11	1600	300	30
9	7782	CLARK	MANAGER	7839	81/05/09	2450	(null)	10
10	7698	BLAKE	MANAGER	7839	81/05/01	2850	(null)	30
11	7566	JONES	MANAGER	7839	81/04/01	2975	(null)	20
12	7902	FORD	ANALYST	7566	81/12/11	3000	(null)	20
13	7788	SCOTT	ANALYST	7566	82/12/22	3000	(null)	20
14	7839	KING	PRESIDENT	(null)	81/11/17	5000	(null)	10

SELECT *
FROM EMP
ORDER BY SAL;

Q013

• EMP 테이블의 모든 열을 급여기준으로 내림차순순 정렬하시오.

	⊕ СОММ	∯ SAL	GR ⊕ HIREDATE		ENAME & J	⊕ EMPNO	
10	(null)	5000	ull) 81/11/17	SIDENT	KING PR	7839	1
20	(null)	3000	666 82/12/22	LYST	SCOTT AN	7788	2
20	(null)	3000	66 81/12/11	LYST	ORD AN	7902	3
20	(null)	2975	339 81/04/01	IAGER	IONES M	7566	4
30	(null)	2850	339 81/05/01	IAGER	BLAKE M.	7698	5
10	(null)	2450	339 81/05/09	IAGER	CLARK M	7782	6
30	300	1600	98 81/02/11	SMAN	ALLEN SA	7499	7
30	0	1500	98 81/08/21	SMAN	TURNER SA	7844	8
10	(null)	1300	782 82/01/11	RK	MILLER CL	7934	9
30	500	1250	98 81/02/23	SMAN	WARD SA	7521	10
30	1400	1250	98 81/09/10	SMAN	MARTIN SA	7654	11
20	(null)	1100	788 83/01/15	RK	ADAMS CL	7876	12
30	(null)	950	98 81/12/11	RK	IAMES CL	7900	13
20	(null)	800	02 80/12/09	RK	SMITH CL	7369	14

SELECT *
 FROM EMP
ORDER BY SAL DESC;

Q014

• EMP 테이블의 모든 열을 전체열을 부서번호(오름차순)와 급여(내림차순)으로 정렬하시오.

DEPTNO	COMM	∯ SAL		∯ JOB	⊕ ENAME	⊕ EMPNO	
10	(null)	5000	(null) 81/11/17	PRESIDENT	KING	7839	1
10	(null)	2450	7839 81/05/09	MANAGER	CLARK	7782	2
10	(null)	1300	7782 82/01/11	CLERK	MILLER	7934	3
20	(null)	3000	7566 82/12/22	ANALYST	SCOTT	7788	4
20	(null)	3000	7566 81/12/11	ANALYST	FORD	7902	5
20	(null)	2975	7839 81/04/01	MANAGER	JONES	7566	6
20	(null)	1100	7788 83/01/15	CLERK	ADAMS	7876	7
20	(null)	800	7902 80/12/09	CLERK	SMITH	7369	8
30	(null)	2850	7839 81/05/01	MANAGER	BLAKE	7698	9
30	300	1600	7698 81/02/11	SALESMAN	ALLEN	7499	10
30	0	1500	7698 81/08/21	SALESMAN	TURNER	7844	11
30	1400	1250	7698 81/09/10	SALESMAN	MARTIN	7654	12
30	500	1250	7698 81/02/23	SALESMAN	WARD	7521	13
30	(null)	950	7698 81/12/11	CLERK	JAMES	7900	14

SELECT *
 FROM EMP
ORDER BY DEPTNO ASC, SAL DESC;

■STEP2. EX

EX001.

• EMP테이블의 JOB열 데이터를 중복없이 조회하시오.

∜ JOB	
1 SALES	MAN
² CLERK	(
3 PRESI	DENT
4 MANA	AGER
5 ANAL	YST

EX002.

- 조회할 테이블은 EMP 테이블이며 모든 열을 출력하시오.
- 별칭

EMPNO → EMPLOYEE_NO,

ENAME → EMPLOYEE NAME,

MGR → MANAGER,

 $SAL \rightarrow SALARY$,

COMM → COMMISSION,

 $DEPTNO \rightarrow DEPARTMENT NO$

• 부서번호를 기준으로 내림차순으로 정렬하되,

부서번호가 같다면 사원이름을 기준으로 오름차순 정렬하시오.

- (EMPLOYEE_NO (EMPLOYEE_NAME)	∯ JOB	MANAGER	SALARY SALARY	COMMISSION	DEPARTMENT_NO
1	7499 ALLEN	SALESMAN	7698 81/02/11	1600	300	30
2	7698 BLAKE	MANAGER	7839 81/05/01	2850	(null)	30
3	7900 JAMES	CLERK	7698 81/12/11	950	(null)	30
4	7654 MARTIN	SALESMAN	7698 81/09/10	1250	1400	30
5	7844 TURNER	SALESMAN	7698 81/08/21	1500	0	30
6	7521 WARD	SALESMAN	7698 81/02/23	1250	500	30
7	7876 ADAMS	CLERK	7788 83/01/15	1100	(null)	20
8	7902 FORD	ANALYST	7566 81/12/11	3000	(null)	20
9	7566 JONES	MANAGER	7839 81/04/01	2975	(null)	20
10	7788 SCOTT	ANALYST	7566 82/12/22	3000	(null)	20
11	7369 SMITH	CLERK	7902 80/12/09	800	(null)	20
12	7782 CLARK	MANAGER	7839 81/05/09	2450	(null)	10
13	7839 KING	PRESIDENT	(null) 81/11/17	5000	(null)	10
14	7934 MILLER	CLERK	7782 82/01/11	1300	(null)	10