

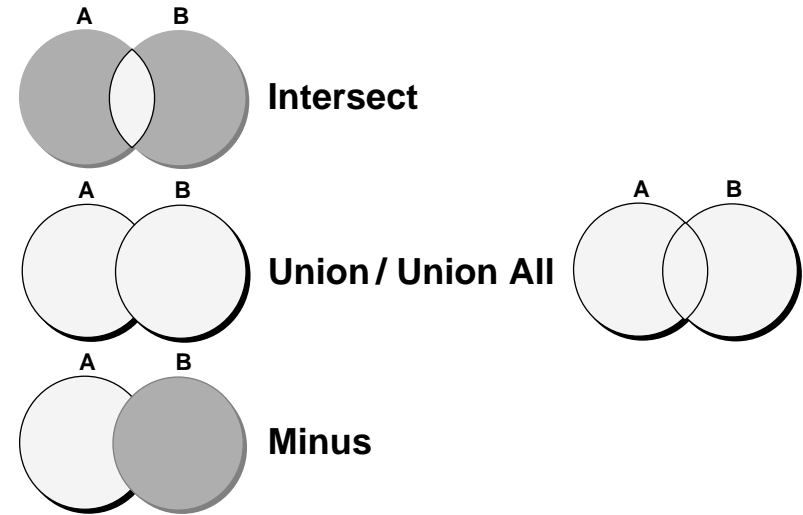
SQL Intensivpraktikum SS 2008

Mengenoperatoren

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Die Mengenoperatoren



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Tabellen

EMP

| EMPNO | ENAME | JOB | MGR | HIREDATE | SAL | COMM | DEPTNO |
|-------|--------|-----------|------|-----------|------|------|--------|
| 7839 | KING | PRESIDENT | | 17-NOV-81 | 5000 | | 10 |
| 7698 | BLAKE | MANAGER | 7839 | 01-MAY-81 | 2850 | | 30 |
| 7782 | CLARK | MANAGER | 7839 | 09-JUN-81 | 1500 | | 10 |
| 7566 | JONES | MANAGER | 7839 | 02-APR-81 | 2975 | | 20 |
| 7654 | MARTIN | SALESMAN | 7698 | 28-SEP-81 | 1250 | 1400 | 30 |
| 7499 | ALLEN | SALESMAN | 7698 | 20-FEB-81 | 1600 | 300 | 30 |
| 7844 | TURNER | SALESMAN | 7698 | 08-SEP-81 | 1500 | 0 | 30 |
| 7900 | JAMES | CLERK | 7698 | 03-DEC-81 | 950 | | 30 |
| 7521 | WARD | SALESMAN | 7698 | 22-FEB-81 | 1250 | 500 | 30 |
| 7902 | FORD | ANALYST | 7566 | 03-DEC-81 | 3000 | | 20 |
| 7369 | SMITH | CLERK | | | | | |
| 7788 | SCOTT | ANALYST | | | | | |
| 7876 | ADAMS | CLERK | | | | | |
| 7934 | MILLER | CLERK | | | | | |

EMP_HISTORY

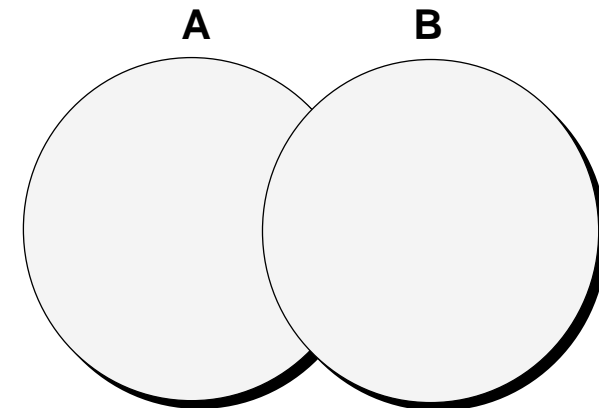
| EMPID | NAME | TITLE | DATE_OUT | DEPTID |
|-------|---------|-----------|-----------|--------|
| 6087 | SPENCER | OPERATOR | 27-NOV-81 | 20 |
| 6185 | VANDYKE | MANAGER | 17-JAN-81 | 10 |
| 6235 | BALFORD | CLERK | 22-FEB-80 | 20 |
| 7788 | SCOTT | ANALYST | 05-MAY-81 | 20 |
| 7001 | JEWELL | ANALYST | 10-JUN-81 | 30 |
| 7499 | ALLEN | SALESMAN | 01-AUG-80 | 20 |
| 7225 | BRIGGS | PAY CLERK | 27-NOV-81 | 10 |
| 7782 | CLARK | MANAGER | 12-FEB-80 | 10 |
| 7356 | WILD | DIRECTOR | 01-NOV-81 | 10 |

EMPHIS.SQL

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UNION



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Beispiel für den UNION-Operator

Gib Name, Tätigkeit bzw. Titel und Abteilung aller Angestellten aus.

```
SQL> SELECT ename, job, deptno
2 FROM emp
3 UNION
4 SELECT name, title, deptid
5 FROM emp_history;
```

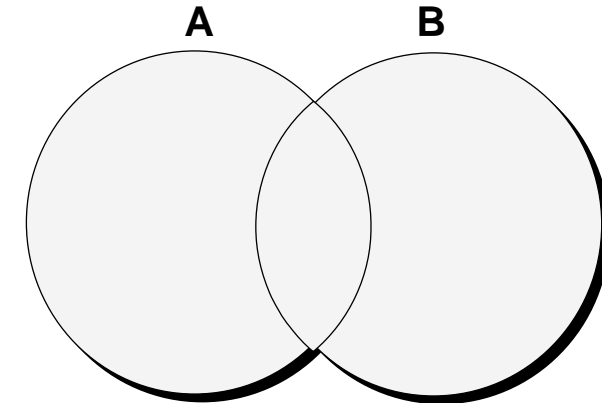
| ENAME | JOB | DEPTNO |
|---------|----------|--------|
| ADAMS | CLERK | 30 |
| ALLEN | SALESMAN | 30 |
| ALLEN | SALESMAN | 20 |
| BALFORD | CLERK | 20 |
| BLAKE | MANAGER | 30 |
| ... | | |

20 rows selected.

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UNION ALL (eliminiert keine Duplikate)



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Beispiel für den UNION ALL Operator

Gib die Namen, Personalnummern und Tätigkeit bzw. Titel aller Angestellten aus.

```
SQL> SELECT ename, empno, job
2 FROM emp
3 UNION ALL
4 SELECT name, empid, title
5 FROM emp_history;
```

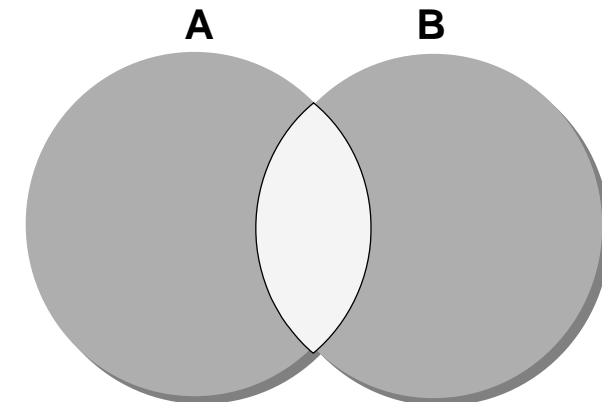
| ENAME | EMPNO | JOB |
|--------|-------|-----------|
| KING | 7839 | PRESIDENT |
| BLAKE | 7698 | MANAGER |
| CLARK | 7782 | MANAGER |
| CLARK | 7782 | MANAGER |
| MARTIN | 7654 | SALESMAN |
| ... | | |

23 rows selected.

SQL7 ba

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INTERSECT



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Beispiel für den INTERSECT

Operator

Gib die unterschiedlichen Namen, Personalnummern und Tätigkeitsbezeichnungen aller Angestellten aus beiden Tabellen (EMP and EMP_HISTORY) aus.

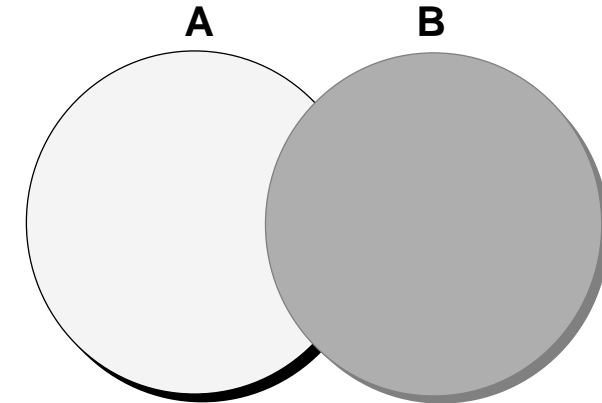
```
SQL> SELECT ename, empno, job
2 FROM emp
3 INTERSECT
4 SELECT name, empid, title
5 FROM emp_history;
```

| ENAME | EMPNO | JOB |
|-------|-------|----------|
| ALLEN | 7499 | SALESMAN |
| CLARK | 7782 | MANAGER |
| SCOTT | 7788 | ANALYST |

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MINUS



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MINUS

Gib die Namen, Personalnummern und Tätigkeitsbezeichnungen von allen Angestellten aus, die nicht mehr in der Firma arbeiten.

```
SQL> SELECT name, empid, title
2 FROM emp_history
3 MINUS
4 SELECT ename, empno, job
5 FROM emp;
```

| NAME | EMPID | TITLE |
|---------|-------|-----------|
| BALFORD | 6235 | CLERK |
| BRIGGS | 7225 | PAY CLERK |
| JEWELL | 7001 | ANALYST |
| SPENCER | 6087 | OPERATOR |

SQL11 basierend auf OAI-Kurs Copyright © Oracle Corporation, 1998. All rights reserved. 6 rows selected.

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SELECT Statement anpassen

Gib die Abteilungsnummer, den Ort und das Einstellungsdatum für alle Angestellten aus.

```
SQL> SELECT deptno, TO_CHAR(null) location, hiredate
2 FROM emp
3 UNION
4 SELECT deptno, loc, TO_DATE(null)
5 FROM dept;
```

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