Herhaling SQL

DE HOGESCHOOL
MET HET NETWERK

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SELECT met selectie

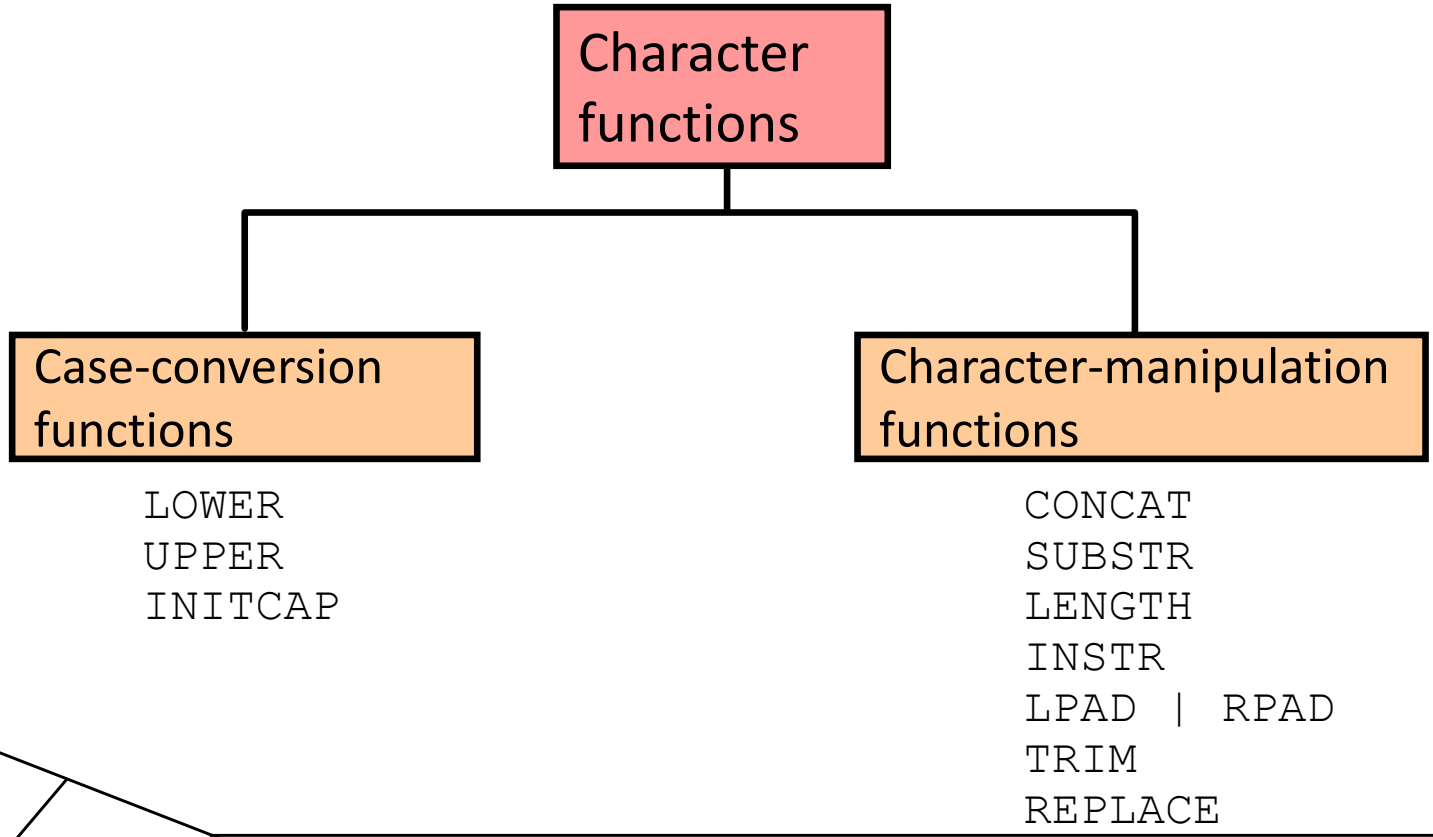
```
SELECT last_name || first_name, job_id, department_id
FROM   employees
WHERE  last_name = 'Whalen';
```

- Character strings and date values are enclosed with single quotation marks.
- Character values are case-sensitive and date values are format-sensitive.
- The default date display format is `DD-MON-RR`.

```
...
WHERE  salary BETWEEN 2500 and 3500;
WHERE  department_id IN (10, 60);
WHERE  last_name LIKE '_a%n';
WHERE  manager_id IS NULL;
```

SELECT met character functies

```
SELECT CONCAT(last_name, first_name), LENGTH(last_name)
FROM   employees
WHERE  LOWER(last_name) = 'whalen'
AND    UPPER(SUBSTR(job_id, 4)) = 'REP';
```



SELECT met functies

```
SELECT  TRUNC(MONTHS_BETWEEN(SYSDATE, '01-JAN-22')),
        ADD_MONTHS(hire_date, 6)
FROM    employees
WHERE   ROUND(salary * 12, 0) > 10000;
```

Functie	Resultaat
ROUND(45.926, 2)	45.93
TRUNC(45.926, 2)	45.92
MOD(1600, 300)	100
MONTHS_BETWEEN(SYSDATE, '01-JAN-22')	1.57
ADD_MONTHS(SYSDATE, 6)	15-AUG-22
NEXT_DAY(SYSDATE, 'FRIDAY')	18-FEB-22
LAST_DAY(SYSDATE)	28-FEB-22

SELECT met conversie functies - substitutievariabele

```
SELECT last_name, TO_CHAR(hire_date, 'DD Month YYYY') Datum
FROM   employees
WHERE  hire_date < TO_DATE('&datum', 'DD/MM/YYYY');
```

```
SELECT last_name, salary + salary * NVL(commission_pct, 0)
FROM   employees;
```

SELECT met groepsfuncties

```
SELECT   department_id, SUM(salary)
FROM     employees
WHERE    department_id > 40
GROUP BY department_id
HAVING   SUM(salary) > 1000
ORDER BY department_id;
```

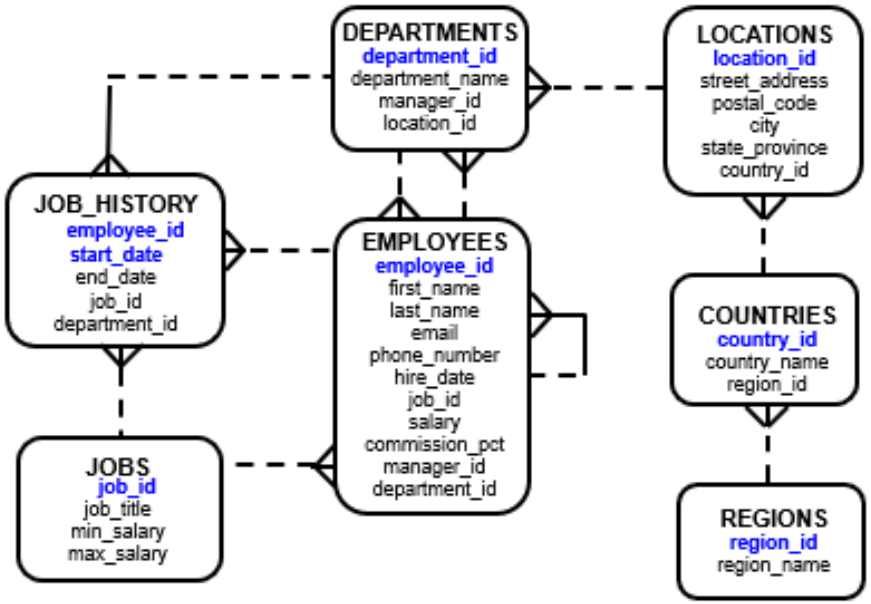
- MIN
- MAX
- AVG
- SUM
- COUNT

SELECT met subqueries

```
SELECT last_name, salary
FROM   employees
WHERE  salary >
                (SELECT salary
                 FROM   employees
                 WHERE  last_name = 'Abel');
```

```
SELECT          job_id, AVG(salary)
FROM            employees
GROUP BY        job_id
HAVING          AVG(salary) = (SELECT MIN(AVG(salary))
                               FROM employees
                               GROUP BY job_id);
```

SELECT met JOIN




```
SELECT employee_id, city, department_name
FROM   employees e
JOIN   departments d
ON     (d.department_id = e.department_id)
JOIN   locations l
ON     (d.location_id = l.location_id);
```

Data Manipulation Language (DML) Statements

```
INSERT INTO departments(department_id,
       department_name, manager_id, location_id)
VALUES (70, 'Public Relations', 100, 1700);
```

```
UPDATE employees
SET    department_id = 50
WHERE  employee_id = 113;
```

```
DELETE FROM departments
WHERE  department_name = 'Finance';
```

Data Definition Language (DDL) Statements

```
CREATE TABLE employees
    ( employee_id    NUMBER(6)
        CONSTRAINT     emp_employee_id   PRIMARY KEY
    , first_name     VARCHAR2(20)
    , last_name      VARCHAR2(25)
        CONSTRAINT     emp_last_name_nn  NOT NULL
    , email          VARCHAR2(25)
        CONSTRAINT     emp_email_nn      NOT NULL
        CONSTRAINT     emp_email_uk      UNIQUE
    , phone_number   VARCHAR2(20)
    , hire_date      DATE
        CONSTRAINT     emp_hire_date_nn  NOT NULL
    , job_id         VARCHAR2(10)
        CONSTRAINT     emp_job_nn        NOT NULL
    , salary         NUMBER(8,2)
        CONSTRAINT     emp_salary_ck     CHECK (salary>0)
    , commission_pct NUMBER(2,2)
    , manager_id     NUMBER(6)
         CONSTRAINT emp_manager_fk REFERENCES
          employees (employee_id)
    , department_id  NUMBER(4)
        CONSTRAINT     emp_dept_fk       REFERENCES
           departments (department_id));
```

Herhalingsoefening

Maak een overzicht om per jaar weer te geven hoeveel mensen aangeworven werden. In het overzicht worden enkel mensen geteld die werken in een land waarin het woord ‘america’(hoofd- of kleine letters?) voorkomt

JAAR	AANTAL
1987	2
1989	1
1990	1
….	