

# Oracle Exercises

Originally written by Mária Kende, and István Nagy.

Translated by Dániel Csubák.

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## Simple Queries

### Exercises

#### Exercise 1.1

List the name, hire date, job of the employees of the department 20, sorted in descending by the names.

#### Exercise 1.2

Make two lists, which contain all the information about the employees. The first should be sorted ascending, the second in descending by the salaries.

#### Exercise 1.3

List the names, salaries, and income of the employees, sorted in descending by the income. The income is the sum of the salary and the commission.

#### Exercise 1.4

List the name, department number, income, and tax of the employees, sorted in descending by the tax. The tax is the 20% of the income.

#### Exercise 1.5

List the name, job, and salary of those employees, whose salary is not in the 1500-2850 interval. The headers of the list should be "Name", "Job", and "Salary".

#### Exercise 1.6

List the name, job, salary, commission, department number of those employees, whose salary is greater than 1000, and were hired between 1981.03.01. and 1981.09.30.

#### Exercise 1.7

List the name, commission, manager number of those employees, who has a commission. Sort the list by the manager number first, then by the employee name.

#### Exercise 1.8

List the number, name, job, salary, and commission of those employees, whose commission is greater than the 50% of their salary.

#### Exercise 1.9

List the name, job, salary, and hire date of those employees, who was hired in 1981. Sort the list by the hire date.

#### Exercise 1.10

List the name, job, income of those employees, whose name contains two letter "L"s, or works for department 30, or his manager's number is 7782.

#### Exercise 1.11

List the name, and yearly salary of the clerks, and the salesmen, sorted by department number.

#### Exercise 1.12

List the number, name, job, hire date, and commission of the employees. For those employees, who does not have any commission, the 'No commission' string should appear.

**Exercise 1.13**

List the names, and jobs of those employees, whose name contains the 'man' string. Sort the list by the job first, then by the name.

**Exercise 1.14**

List the names, jobs, income, and department number of those employees, whose income is lesser than 2500, and was hired between 1981, and 1982. Sort the list by the job first, then by the name.

**Exercise 1.15**

List the name, yearly salary, and the number of months in work of those employees, who was hired before 1981.07.01. Sort the list by the month numbers.

**Exercise 1.16**

List the name (beginning with uppercase letter, followed by lowercase letters), and the length of the name of those employees, whose job's name begins with 'C' or 'M'. Sort the list by the job.

**Exercise 1.17**

List the number, name, income, the day, when he was hired, and the department number of those employees, whose income is between 1300 and 5500. Sort the list by the number of the days in the week first, then the name of the employee.

**Exercise 1.18**

List the number, name, salary, and the number of years in work of those employees, who was hired at least 15 years ago.

**Exercise 1.19**

List the names, jobs, salaries, and salary categories of the employees. The salary category is 1 below 1000, 2 below 2000, and 3 for higher. Sort the result descending by the category.

**Exercise 1.20**

List the name, number, and title of the employees. The title is 'BOSS' for those, who has at least one subordinate, and NULL if has not.

## Grouping, and aggregation on one table

### Exercises

How much is the maximal salary of the employees?

How much is the sum of the salary of the employees?

How much is the average salary of the employees of department 20?

How many different jobs are there amongst the employees?

How many employees have greater salary than 2000?

List the average of the salary grouped by the departments!

List the number of workers for each department!

List the average salary of those departments which has average salary greater than 2000!

List the average salary of those departments which has more than 4 workers!

## Queries on multiple tables, subqueries

### Exercises

#### **Exercise 3.1**

List the name of those employees, and the name of their department whose name contains letter 'A'!

#### **Exercise 3.2**

List the name, job, and salary of those employees who works at DALLAS!

#### **Exercise 3.3**

List the name, id, and department location of all the CLERKS!

#### **Exercise 3.4**

List the name, job, and department location of those employees who works at DALLAS, or CHICAGO. Sort the output by the name of the department!

#### **Exercise 3.5**

List the name of the departments, their location, and the average salary of their employees. Sort the output by the name of the departments!

#### **Exercise 3.6**

List the name, id, job, commission, and hire date of those employees, who works at department 20, or 30, and has the maximal salary of their department!

#### **Exercise 3.7**

List the name, id, job, commission, and hire date of each employee, who has the minimal salary of their department!

#### **Exercise 3.8**

List the name, and id of those departments, whose average salary is lesser than 2200!

#### **Exercise 3.9**

List the name, department name, and location of those employees, who has any commission!

#### **Exercise 3.10**

List the name of the employees, the name, and id of their bosses. In the case of those, who does not have a boss, 'THE BOSS' should appear instead of NULL!

#### **Exercise 3.11**

List the name, id, salary, boss' name, and boss' department location of all the employees of the department located at DALLAS!

#### **Exercise 3.12**

List the name, salary, and department name of those employees, whose salary is equal to one of the salaries from the department of DALLAS. Sort the output by the name of the department!

**Exercise 3.13**

List the name of those employees, whose name is similar to a job title!

**Exercise 3.14**

List the name of those bosses whose job is not MANAGER! Sort the output by the id of the bosses (mgr)!

**Exercise 3.15**

How many bosses are not MANAGERS?

**Exercise 3.16**

List the employees with the minimal salaries, grouped by their bosses! Leave those, who has no boss, and those groups, which has greater salary than 3000. Sort the list by the salary!

**Exercise 3.17**

List the id, and name of those employees who work at a department which has at least one employee, whose name contains letter 'T'! Sort the output by department location, and name!

**Exercise 3.18**

List those employees, grouped by their bosses, whose salary is minimal by this grouping, but greater than 1000! Sort the output by the salary! The header of the list should be boss id, employee name, salary.

**Exercise 3.19**

List those bosses, the maximal, and minimal salaries amongst his employees, if the minimal salary is lesser than 3000. Sort the output by the minimal salary. The headers should be BOSS ID, MINIMAL SALARY, and MAXIMAL SALARY!

**Exercise 3.20**

List the name, and salary of the bosses of the SALESMANs, and the CLERKs, with the name, job, and salary of the employee, and the rate of the boss' and the employee's salary. Sort the output by the boss' name first, then by the salary rate second.