

Database Programming with SQL

3-3: Introduction to Functions

Practice Activities

Objectives

- Identify appropriate applications of single-row functions in query statements
- Classify a function as a single-row or multi-row function
- Differentiate between single-row functions and multirow functions and the result returned by each

Try It / Solve It

1. For each task, choose whether a single-row or multiple row function would be most appropriate:
 - a. Showing all of the email addresses in upper case letters [single row](#)
 - b. Determining the average salary for the employees in the sales department [multiple row](#)
 - c. Showing hire dates with the month spelled out (*September 1, 2004*) [single row](#)
 - d. Finding out the employees in each department that had the most seniority (the earliest hire date) [multiple row](#)
 - e. Displaying the employees' salaries rounded to the hundreds place [single row\(rounding\)](#)
 - f. Substituting zeros for null values when displaying employee commissions. [single row\(substitution\)](#)
2. The most common multiple-row functions are: AVG, COUNT, MAX, MIN, and SUM. Give your own definition for each of these functions.
[avg-avarage din mai multe linii](#) [max- maximul din mai multe linii](#) [sum- suma mai multor linii](#)
[COUNT- numara cate linii au fost introduce](#) [min - minimul -II-](#)
3. Test your definitions by substituting each of the multiple-row functions into this query.

```
SELECT FUNCTION(salary)
FROM employees
```

Write out each query and its results.

```
max=24000
count=20
min=2500
avg=8775
sum=175500
```