Practice SQL SELECT Statements | HR

This page provides exercises and solutions to help you practice SQL SELECT statements. These exercises are based on the HR database, and may be performed online or by running the sample schema scripts on your local database server. For additional exercises in other subjects, use this link.

Basic SELECT statements – Exercises

Create a query to display all the data from the Employees table.

The following SELECT statement executes successfully (True / False)

1

2

FROM employees

SELECT last\_name, first\_name

Create a query to display the department number, department name, and manager number. Name the last column (manager number) heading as “MNG” (Employees table).

The following SELECT statement executes successfully (True / False)

1

2

SELECT department\_name, department\_name

FROM departments

The following SELECT statement executes successfully (True / False)

1

SeleCT last\_NAME, fiRST\_NamE, FROM Employees

Create a query to display the employee number, first name, last name, phone number and department number (Employees table).

Create a query to display the first name, last name, hire date, salary, and salary after a raise of 20%. Name the last column (salary after a raise) heading as “ANNUAL\_SAL” (Employees table).

Create a query to display the last name concatenated with the first name, separated by space, and the telephone number concatenated with the email address, separated by hyphen. Name the column headings “FULL\_NAME” and “CONTACT\_DETAILS” respectively (Employees tables).

Create a query to display the unique manager numbers from Employees table.

Create a query to display the last name concatenated with job\_id column, separated by space. Name this column heading as “EMPLOYEE\_AND\_TITLE” (Employees table).

Create a query to display the first name, last name, salary, and hire date concatenated with the literal string “HD”, separated by space. Name the column headings “FN”, “LN”, “SAL”, and “HD” respectively (Employees table).

Create a query to display the unique salaries in Employees tables.

Create a query to display the unique combination of values in department\_id and job\_id columns (Employees table).

Hide the solutions

Solutions – Oracle

The following solutions apply to Oracle, for solutions that apply to SQL Server click here.

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-- 1

SELECT \*

FROM employees

-- 2

FROM employees

SELECT last\_name , first\_name

-- Error, invalid SQL Statement

-- 3

SELECT department\_name , department\_id , manager\_id AS "MNG"

FROM departments

-- 4

SELECT department\_name , department\_name

FROM departments

-- Valid SQL Statement

-- 5

SeleCT last\_NAME , fiRST\_NamE , FROM Employees

-- Error, invalid SQL Statement

-- 6

SELECT employee\_id , first\_name , last\_name , phone\_number , department\_id

FROM employees

-- 7

SELECT first\_name , last\_name , hire\_date , salary ,

salary \* 12 AS "ANNUAL\_SAL"

FROM employees

-- 8

SELECT first\_name || ' ' || last\_name AS "FULL\_NAME" ,

phone\_number || ' - ' || email AS "CONTACT\_DETAILS"

FROM employees

-- 9

SELECT DISTINCT manager\_id

FROM employees

-- 10

SELECT last\_name || ' ' || job\_id AS "EMPLOYEE\_AND\_TITLE"

FROM employees

-- 11

SELECT first\_name AS "FN" , last\_name AS "LN" , salary AS "SAL" ,

'HD : '|| hire\_date AS "HD"

FROM employees

-- 12

SELECT DISTINCT salary

FROM employees

-- 13

SELECT DISTINCT department\_id , job\_id

FROM employees

Solutions – SQL Server

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-- 1

SELECT \*

FROM employees

-- 2

FROM employees

SELECT last\_name , first\_name

-- Error, invalid SQL Statement

-- 3

SELECT department\_name , department\_id , manager\_id AS 'MNG'

FROM departments

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-- Valid SQL Statement

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SeleCT last\_NAME , fiRST\_NamE , FROM Employees

-- Error, invalid SQL Statement

-- 6

SELECT employee\_id , first\_name , last\_name , phone\_number , department\_id

FROM employees

-- 7

SELECT first\_name , last\_name , hire\_date , salary ,

salary \* 12 AS 'ANNUAL\_SAL'

FROM employees

-- 8

SELECT first\_name + ' ' + last\_name AS 'FULL\_NAME' ,

phone\_number + ' - ' + email AS 'CONTACT\_DETAILS'

FROM employees

-- 9

SELECT DISTINCT manager\_id

FROM employees

-- 10

SELECT last\_name + ' ' + CAST(job\_id AS VARCHAR) AS 'EMPLOYEE\_AND\_TITLE'

FROM employees

-- 11

-- In MSSQL, in order to concatenate string with date / number, everything must be converted into string.

-- One way to preform this conversion is using the CAST function.

SELECT first\_name AS 'FN' , last\_name AS 'LN' , salary AS 'SAL' ,

'HD : '+ CAST(hire\_date AS VARCHAR) AS 'HD'

FROM employees

-- 12

SELECT DISTINCT salary

FROM employees

-- 13

SELECT DISTINCT department\_id , job\_id

FROM employees

**Practice SQL SELECT Statements | HR**

This page provides exercises and solutions to help you practice SQL SELECT statements. These exercises are based on the [HR database](https://ramkedem.com/en/hr-sample-database/), and may be performed [online](https://ramkedem.com/en/practice-sql-online/) or by running the sample schema scripts on your local database server. For additional exercises in other subjects, use this [link](https://ramkedem.com/en/sql-tutorial/).

Basic SELECT statements – Exercises

1. Create a query to display all the data from the *Employees* table.
2. The following SELECT statement executes successfully (True / False)

|  |  |
| --- | --- |
| 1  2 | FROM employees  SELECT last\_name, first\_name |

1. Create a query to display the department number, department name, and manager number. Name the last column (manager number) heading as “MNG” (*Employees* table).
2. The following SELECT statement executes successfully (True / False)

|  |  |
| --- | --- |
| 1  2 | SELECT department\_name, department\_name  FROM departments |

1. The following SELECT statement executes successfully (True / False)

|  |  |
| --- | --- |
| 1 | SeleCT last\_NAME, fiRST\_NamE, FROM Employees |

1. Create a query to display the employee number, first name, last name, phone number and department number (*Employees*table).
2. Create a query to display the first name, last name, hire date, salary, and salary after a raise of 20%. Name the last column (salary after a raise) heading as “ANNUAL\_SAL” (*Employees* table).
3. Create a query to display the last name concatenated with the first name, separated by space, and the telephone number concatenated with the email address, separated by hyphen. Name the column headings “FULL\_NAME” and “CONTACT\_DETAILS” respectively (*Employees* tables).
4. Create a query to display the unique manager numbers from *Employees* table.
5. Create a query to display the last name concatenated with *job\_id* column, separated by space. Name this column heading as “EMPLOYEE\_AND\_TITLE” (*Employees* table).
6. Create a query to display the first name, last name, salary, and hire date concatenated with the literal string “HD”, separated by space. Name the column headings “FN”, “LN”, “SAL”, and “HD” respectively (*Employees* table).
7. Create a query to display the unique salaries in *Employees* tables.
8. Create a query to display the unique combination of values in *department\_id* and *job\_id* columns (*Employees* table).

[Hide the solutions](https://ramkedem.com/en/practice-sql-select-statements/)

Solutions – Oracle

The following solutions apply to Oracle, for solutions that apply to SQL Server click [here](https://ramkedem.com/en/practice-sql-select-statements/#SQLServerSolutions).

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| 01  02  03  04  05  06  07  08  09  10  11  12  13  14  15  16  17  18  19  20  21  22  23  24  25  26  27  28  29  30  31  32  33  34  35  36  37  38  39  40  41  42  43  44 | -- 1  SELECT  \*  FROM   employees  -- 2  FROM employees  SELECT last\_name , first\_name  -- Error, invalid SQL Statement  -- 3  SELECT department\_name , department\_id , manager\_id AS "MNG"  FROM  departments  -- 4  SELECT department\_name , department\_name  FROM   departments  -- Valid SQL Statement  -- 5  SeleCT        last\_NAME , fiRST\_NamE , FROM Employees  -- Error, invalid SQL Statement  -- 6  SELECT employee\_id , first\_name , last\_name , phone\_number , department\_id  FROM   employees  -- 7  SELECT first\_name , last\_name , hire\_date , salary ,         salary \* 12 AS "ANNUAL\_SAL"  FROM employees  -- 8  SELECT first\_name || ' ' || last\_name AS "FULL\_NAME" ,         phone\_number || ' - ' || email AS "CONTACT\_DETAILS"  FROM employees  -- 9  SELECT DISTINCT manager\_id  FROM employees  -- 10  SELECT last\_name || ' ' || job\_id AS "EMPLOYEE\_AND\_TITLE"  FROM employees  -- 11  SELECT first\_name AS "FN" , last\_name AS "LN" , salary AS "SAL" ,         'HD : '|| hire\_date AS "HD"  FROM employees  -- 12  SELECT DISTINCT salary  FROM employees  -- 13  SELECT DISTINCT department\_id , job\_id  FROM employees |

Solutions – SQL Server

|  |  |
| --- | --- |
| 01  02  03  04  05  06  07  08  09  10  11  12  13  14  15  16  17  18  19  20  21  22  23  24  25  26  27  28  29  30  31  32  33  34  35  36  37  38  39  40  41  42  43  44  45  46 | -- 1  SELECT  \*  FROM   employees  -- 2  FROM employees  SELECT last\_name , first\_name  -- Error, invalid SQL Statement  -- 3  SELECT department\_name , department\_id , manager\_id AS 'MNG'  FROM  departments  -- 4  SELECT department\_name , department\_name  FROM   departments  -- Valid SQL Statement  -- 5  SeleCT        last\_NAME , fiRST\_NamE , FROM Employees  -- Error, invalid SQL Statement  -- 6  SELECT employee\_id , first\_name , last\_name , phone\_number , department\_id  FROM   employees  -- 7  SELECT first\_name , last\_name , hire\_date , salary ,         salary \* 12 AS 'ANNUAL\_SAL'  FROM employees  -- 8  SELECT first\_name + ' ' + last\_name AS 'FULL\_NAME' ,         phone\_number + ' - ' + email AS 'CONTACT\_DETAILS'  FROM employees  -- 9  SELECT DISTINCT manager\_id  FROM employees  -- 10  SELECT last\_name + ' ' + CAST(job\_id AS VARCHAR) AS 'EMPLOYEE\_AND\_TITLE'  FROM employees  -- 11  -- In MSSQL, in order to concatenate string with date / number, everything must be converted into string.  -- One way to preform this conversion is using the CAST function.  SELECT first\_name AS 'FN' , last\_name AS 'LN' , salary AS 'SAL' ,         'HD : '+ CAST(hire\_date AS VARCHAR) AS 'HD'  FROM employees  -- 12  SELECT DISTINCT salary  FROM employees  -- 13  SELECT DISTINCT department\_id , job\_id  FROM employees |