

CSG1207/CSI5135: Systems and Database Design

Lab 05 - Solutions

Standard Disclaimer

Many questions you encounter in this and other labs have more than one solution which is valid and correct. There are often numerous ways to achieve the same results in an SQL query.

The solutions provided here may NOT be the only correct answers to the questions. If you have arrived at solution to a lab task that differs substantially from what is provided here and would like feedback on your solution, please contact your tutor.

Lab Tasks

- Q1.** The two errors are a missing underscore in “last_name”, and a missing comma between the two last columns. Working query:

```
SELECT first_name, last_name, gender
FROM employee;
```

- Q2.**
- ```
SELECT *
FROM department;
```

- Q3.**
- ```
SELECT employee_id, last_name, salary,
       salary * 12,
       salary * 0.75
FROM employee;
```

- Q4.**
- ```
SELECT employee_id, last_name, salary,
 salary * 12 AS 'annual_salary',
 salary * 0.75 AS 'penalty_salary'
FROM employee;
```

- Q5.** (You are encouraged to create aliases for the columns)
- ```
SELECT first_name + ' ' + last_name,
       last_name + ', ' + first_name
FROM employee;
```

- Q6.**
- ```
SELECT DISTINCT job_id
FROM employee;
```

- Q7.** Double quotes (") cannot be used when concatenating. While they can be used to specify the name of an alias, you must be sure to use the same type of quote at the start and end of the alias name – either single or double. There was also a missing "+" before the email column. Working query:

```
SELECT first_name + ' ' + last_name + ' - ' + email
 AS 'name_and_email'
FROM employee;
```

- Q8.**
- ```
SELECT first_name + ' ' + last_name + ' (' + job_id + ')'
       AS 'name_and_job',
       email + '@COMPANY.COM' AS 'full_email'
FROM employee;
```

- Q9.**
- ```
SELECT job_id + ' - ' + job_title AS 'job_id_and_title',
 max_salary - min_salary AS 'salary_range'
FROM job;
```

### Challenge Query!

- Q10.**
- ```
SELECT '<a href="mailto:' + LOWER(email) + '@company.com">'
       + first_name + ' ' + UPPER(last_name) + '</a>'
       AS 'full_email'
FROM employee;
```