# Lab: Subqueries and JOINs

This document defines the **lab** **exercise assignments** for the [PostgreSQL course @ Software University.](https://softuni.bg/trainings/4244/postgresql-september-2023)

Submit your solutions in the [SoftUni Judge System](https://judge.softuni.org/Contests/4110/Subqueries-and-JOINs-Lab).

You will need to create the **soft\_uni** **database** for the following exercises. Download and import file **soft\_uni\_db.sql**. Run all queries.

## Towns Addresses

Write a query to get information about the **addresses** in the database, which are in **San Francisco**, **Sofia,** or **Carnation**. Retrieve town\_id, town\_name, address\_text. Order the result by town\_id, then by address\_id. Submit your queries.

### Example

|  |  |  |
| --- | --- | --- |
| **town\_id** | **town\_name** | **address\_text** |
| 9 | San Fransisco | 1234 Seaside Way |
| 9 | San Fransisco | 5725 Glaze Drive |
| 15 | Carnation | 1411 Ranch Drive |
| … | … | … |
| 32 | Sofia | 163 Nishava Str, ent A, apt. 1 |

## Managers

Write a query to retrieve information about the **managers** – **employee\_**id, full\_name, deparment\_id, and department\_name. Select the **first 5** managers ordered by employee\_id. Submit your queries.

### Example

|  |  |  |  |
| --- | --- | --- | --- |
| **employee\_id** | **full\_name** | **department\_id** | **department\_name** |
| 3 | Roberto Tamburello | 10 | Finance |
| 4 | Rob Walters | 2 | Tool Design |
| 6 | Bradley | 5 | Purchasing |
| 12 | Terri Duffy | 1 | Engineering |
| 21 | Peter Krebs | 8 | Production Control |

## Employees’ Projects

Write a query to get information about the **employees**, working on a **project** with **id = 1**. Display employee\_id, full\_name, project\_id, and project\_name for all employees engaged with the project. Submit your queries.

### Example

|  |  |  |  |
| --- | --- | --- | --- |
| **employee\_id** | **full\_name** | **project\_id** | **project\_name** |
| 3 | Roberto Tamburello | 1 | Classic Vest |
| 15 | Jeffrey Ford | 1 | Classic Vest |
| 18 | John Campbell | 1 | Classic Vest |
| 36 | Alice Ciccu | 1 | Classic Vest |
| … | … | … | … |
| 246 | Frank Martinez | 1 | Classic Vest |

## Higher Salary

Write a query to **count** the number of **employees** who receive salaries higher than the **average**. Submit your queries.

### Example

|  |
| --- |
| **count** |
| 88 |