# Lab: Table Relations

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/4108/Table-Relations-Lab).

Create a database called **camp**. Import **camp\_db.sql** file, using **camp’s** query tab, and run all queries. Get familiar with all **tables**. You will use them in the following exercises.

## Mountains and Peaks

Write a query to create two tables – **mountains** and **peaks** and **link their fields** properly by setting **Foreign Key Constraint (fk\_peaks\_mountains)**. Tables should have:

* Mountains:
* id
* name, max-length = 50
* Peaks:
* id
* name, max-length = 50
* mountain\_id

Submit your queries in the Judge system.

## Trip Organization

Write a query to retrieve information about **SoftUni camp's transportation organization**. Get information about people who are **drivers** (**driver\_**name and **driver\_**id) and their vehicle type. The driver’s name field represents the **full name** of a **driver**.

Submit your queries in the Judge system.

### Example

|  |  |  |
| --- | --- | --- |
| **driver\_id** | **vehicle\_type** | **driver\_name** |
| 1 | bus | Simo Sheytanov |
| 2 | van | Roli Dimitrova |
| 1 | van | Simo Sheytanov |
| … | … | … |

## SoftUni Hiking

Get information about the hiking **routes** (start\_point and end\_point) and their **leaders** (**leader\_**name and **leader\_**id).

Submit your queries in the Judge system.

### Example

|  |  |  |  |
| --- | --- | --- | --- |
| **start\_point** | **end\_point** | **leader\_id** | **leader\_name** |
| Hotel Malyovitsa | Malyovitsa Peak | 3 | RoYaL Yonkov |
| Hotel Malyovitsa | Malyovitsa Hut | 3 | RoYaL Yonkov |
| Ribni Ezera Hut | Rila Monastery | 3 | RoYaL Yonkov |
| Borovets | Musala Peak | 4 | Ivan Ivanov |

## Delete Mountains

Drop tables from Task 1.

Write a query to create a **one-to-many relationship** between table **mountains** (**id, name**) and table **peaks** (**id, name, mountain\_id**). Set a **Foreign Key Constraint** (**fk\_mountain\_id**) and **On Delete** **rule**.

When a **mountain** is **removed** from the database, **all** its **peaks** are also **deleted**.

Submit your queries in the Judge system.

## Project Management DB\*

\*This task is excluded from Judge System.

A picture containing chart

Description automatically generatedWrite a query to create a project management database, according to the following E/R Diagram: