# Lab: Basic CRUD

This document defines the **lab assignments** for the ["Databases Basics - MySQL" course @ Software University.](#)

Download and get familiar with the **hospital** database schemas and tables. You will use it in the following exercises to write queries.

# Problem 1: Select Employee Information

Write a query to select all employees and retrieve information about their **id, first_name, last_name** and **job_title ordered by id.**

## Example

| id | first_name | last_name | job_title |
|----|-----------|-----------|-----------|
| 1 | John | Smith | Therapist |
| 2 | John | Johnson | Acupuncturist |
| 3 | Smith | Johnson | Technician |
| … | … | … | … |

# Problem 2: Select Employees with Filter

Write a query to select all employees (**id, first_name, last_name, job_title, salary**) whose salaries are **higher than 1000.00, ordered by id.** Concatenate fields **first_name** and **last_name** into '**full_name**'.

## Example

| id | full_name | job_title | salary |
|----|-----------|-----------|--------|
| 3 | Smith Johnson | Technician | 1100 |
| 4 | Peter Petrov | Supervisor | 1100 |
| 5 | Peter Ivanov | Dentist | 1500.23 |
| 7 | Jack Jackson | Epidemiologist | 1800 |
| … | … | … | … |

# Problem 3: Update Employees Salary

Update all employees salaries whose **job_title** is "**Therapist**" by **10%**. Retrieve information about **all salaries ordered ascending**.

## Example

| salary |
|--------|
| 880 |
| 990 |
| 1089 |
| 1100 |
| … |

# Problem 4: Top Paid Employee

Write a query to create a view that selects all information about the top paid employee from the "**employees**" table in the **hospital** database.

## Example

| id | first_name | last_name | job_title | department_id | salary |
|----|------------|-----------|-----------|---------------|--------|
| 8 | Pedro | Petrov | Medical Director | 3 | 2100 |

# Problem 5: Select Employees by Multiple Filters

Write a query to retrieve information about employees, who are in **department 4** and have salary **higher or equal to 1600**. Order the information by **id**.

## Example

| id | first_name | last_name | job_title | department_id | salary |
|----|------------|-----------|-----------|---------------|--------|
| 7 | Jack | Jackson | Epidemiologist | 4 | 1800 |
| 9 | Nikolay | Ivanov | Nutrition Technician | 4 | 1600 |

# Problem 6: Delete from Table

Write a query to delete all employees from the "**employees**" table who are in department **2 or 1**. Order the information by id.

## Example

| id | First_name | Last_name | Job_title | Department_id | salary |
|----|------------|-----------|-----------|---------------|--------|
| 4 | Peter | Petrov | Supervisor | 3 | 1100 |
| 5 | Peter | Ivanov | Dentist | 4 | 1500.23 |
| 7 | Jack | Jackson | Epidemiologist | 4 | 1800 |

| 8 | Pedro | Petrov | Medical Director | 3 | 2100 |
| 9 | Nikolay | Ivanov | Nutrition Technician | 4 | 1600 |