

# Database Systems

Faculty of Technical Sciences, Singidunum University

**FINAL EXAM**

**SQL Queries**

**JUNE 2020.**

You are presented with the SQL script FinalExamScript.sql.

First you should upload and execute this script in the APEX environment or in locally implemented Oracle Database Server.

Database model is presented on another sheet of paper.

When you create and execute queries, please copy them in the .txt document and name the document after your first and last name.

Finally, please send the .txt document with the answers to nbacanin@singidunum.ac.rs.

Good luck!

1. Create a query which as a result retrieves the employees' first name, last name, salary and bonus, but only for employees who have bonus or salary lower than 5000 ordered in descending order by the salary.
2. Create a query which as a result gives a list of the employees who have been working at the company for 20 years and more.
3. Create a query which as a result retrieves the departments in 'Oxford' city .
4. Create a query which as a result retrieves the highest salary of the employees who work in the 'IT' department.
5. Create a query which as a result retrieves the averages salary for the employees who have bonuses and work in the 'IT' or the 'Administration' departments.
6. Increase the salary of the employees who were hired after 25-Jan-1994 three times.  
*update employees set salary = salary\*3 where hire\_date > '01/01/1996';*
7. Add a new country to the table countries. Country ID is 'RS', name is 'Serbia' and region is 'Europe'.
8. Add a new department which is called 'HR', it has ID 120, the manager ID is 124 and the it's located in 'Toronto'.

9. Create a query which as a result retrieves a list of the departments, address, city, postal code and country.
10. Create a query which as a result gives a list of the employee first name, last name, start date and end date for the employees who work in the marketing department
11. Write a query in SQL to display those departments where any manager is managing 2 or more employees (table: employees).
12. Write a query in SQL to group employees in salary grades using the following rules: if salary<300 then grade is 1, if salary is between 300 and 400, then the grade is 2, in all other cases, the grade is 3 (table:employees).
13. Write a query in SQL to display those employees who contain a letter s to their first name and also display their last name, department, city, and state province.
14. Add 15% taxes of the salary to all employees who work in the 'Marketing' or 'Accounting' departments and who have salary that is greater than the average salary for all employees.
15. Create the following table:  
Table name: yourname  
Table fields: **id** integer primary key  
**Title** varchar2(30) unique constraint  
**Content** varchar2(20) not null and unique constraints  
**Date** date check constraint (date>='01-01-1990')