Shahabas K

Table Creation and Sample Data

1. 1. Create `departments` table:

```
CREATE TABLE departments (
  dept_id INT PRIMARY KEY,
  dept_name VARCHAR(100)
);
```

2. Insert sample data into `departments` table:

```
INSERT INTO departments (dept_id, dept_name) VALUES
(101, 'Human Resources'),
(102, 'Finance'),
(103, 'Engineering'),
(104, 'Marketing'),
(105, 'IT Support'),
(106, 'Logistics'),
(107, 'Sales'),
(108, 'Legal'),
(109, 'Customer Service'),
(110, 'Research and Development'),
(111, 'Procurement'),
(112, 'Security'),
(113, 'Public Relations'),
(114, 'Quality Assurance'),
(115, 'Training');
```

3. 2. Create `employees` table:

```
CREATE TABLE employees (
  emp_id INT PRIMARY KEY,
  emp_name VARCHAR(100),
  dept_id INT,
  salary DECIMAL(10,2),
  hire_date DATE
);
```

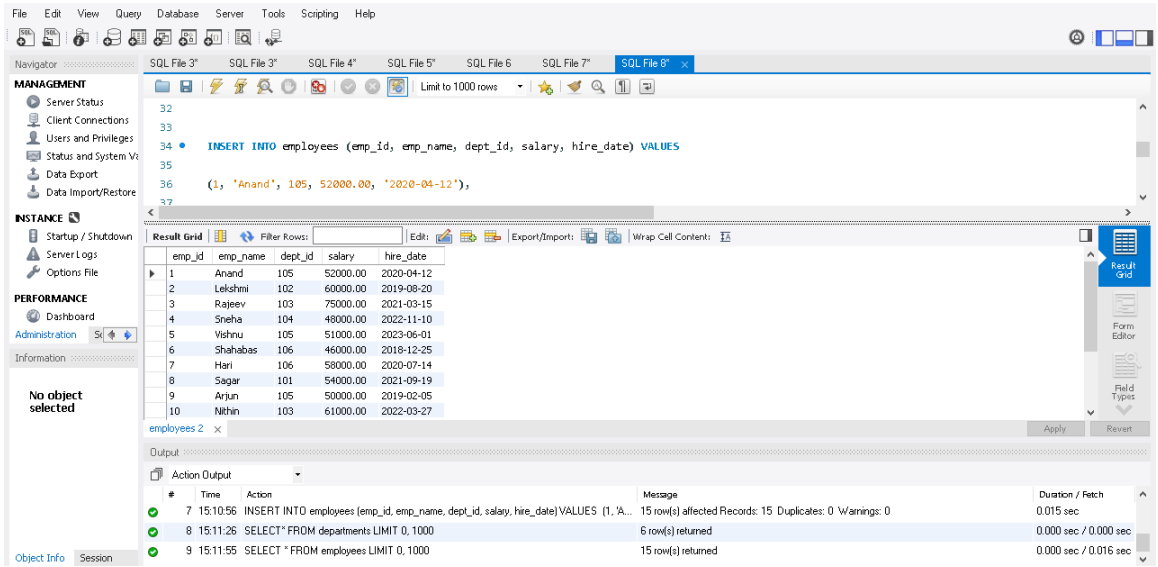
4. Insert sample data into `employees` table:

```
INSERT INTO employees (emp_id, emp_name, dept_id, salary, hire_date) VALUES
(1, 'Anand Krishnan', 101, 52000.00, '2020-04-12'),
(2, 'Lekshmi Nair', 102, 60000.00, '2019-08-20'),
(3, 'Rajeev Menon', 103, 75000.00, '2021-03-15'),
(4, 'Sneha Suresh', 104, 48000.00, '2022-11-10'),
(5, 'Vishnu Mohan', 105, 51000.00, '2023-06-01'),
(6, 'Divya Prasad', 101, 46000.00, '2018-12-25'),
(7, 'Hari Varma', 106, 58000.00, '2020-07-14'),
(8, 'Meera Rajan', 107, 54000.00, '2021-09-19'),
(9, 'Arjun Das', 108, 50000.00, '2019-02-05'),
(10, 'Neha Shaji', 102, 61000.00, '2022-03-27'),
(11, 'Sudeep Kumar', 109, 49000.00, '2023-01-09'),
(12, 'Anjali Menon', 110, 47000.00, '2020-10-31'),
(13, 'Jithin Joseph', 111, 53000.00, '2021-06-20'),
(14, 'Revathi Santhosh', 112, 56000.00, '2022-08-15'),
(15, 'Manu Thomas', 103, 62000.00, '2023-04-03');
```

Part A:

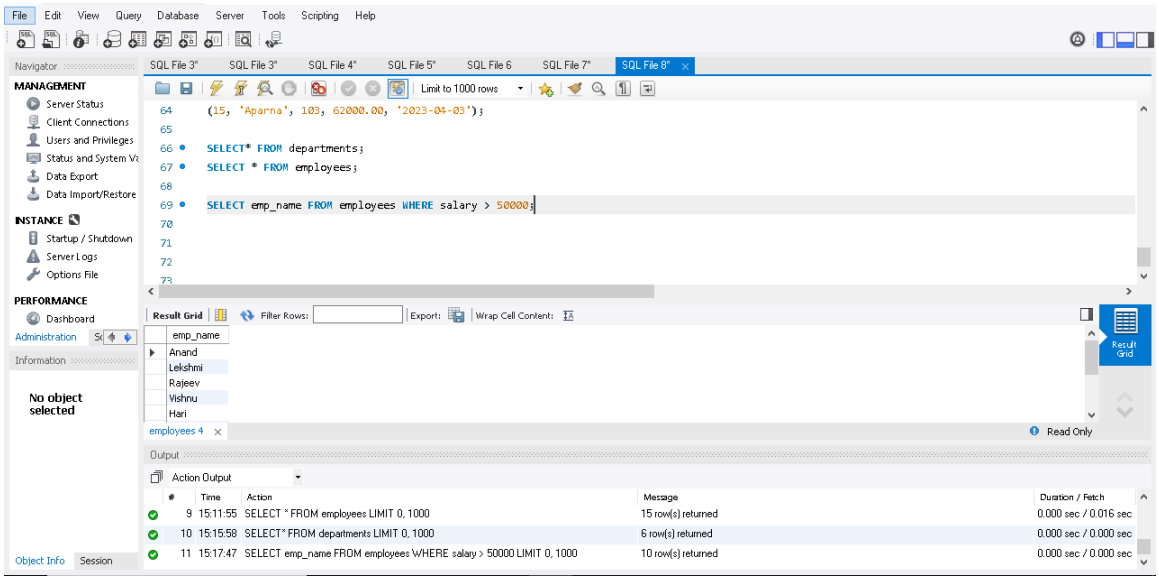
1. Display all data from the employees table

SELECT * FROM employees;



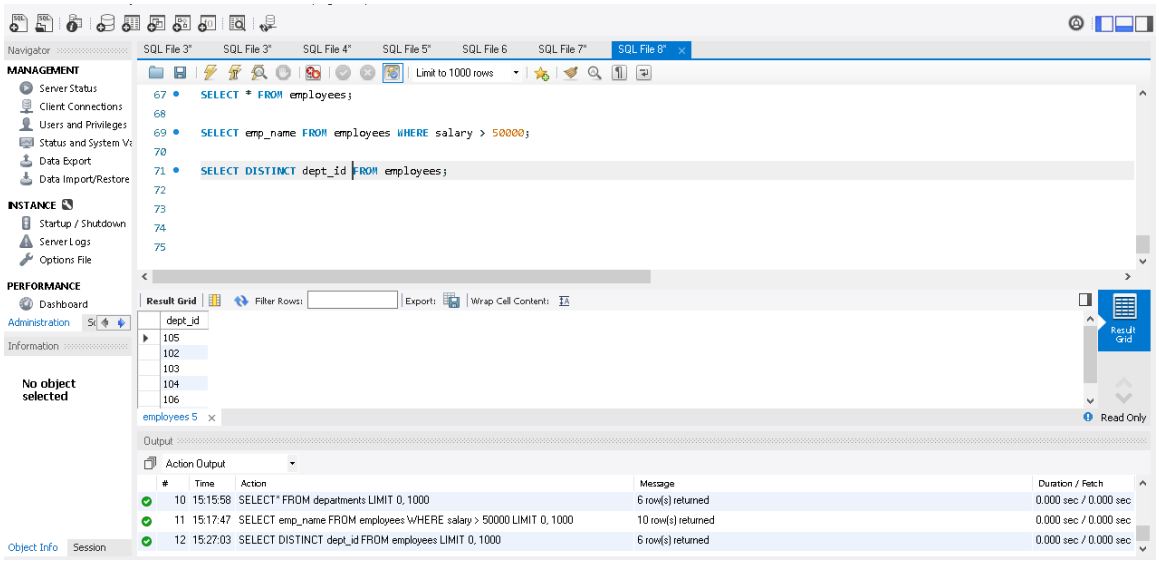
2. Show the names of employees who earn more than 50,000

SELECT emp_name FROM employees WHERE salary > 50000;



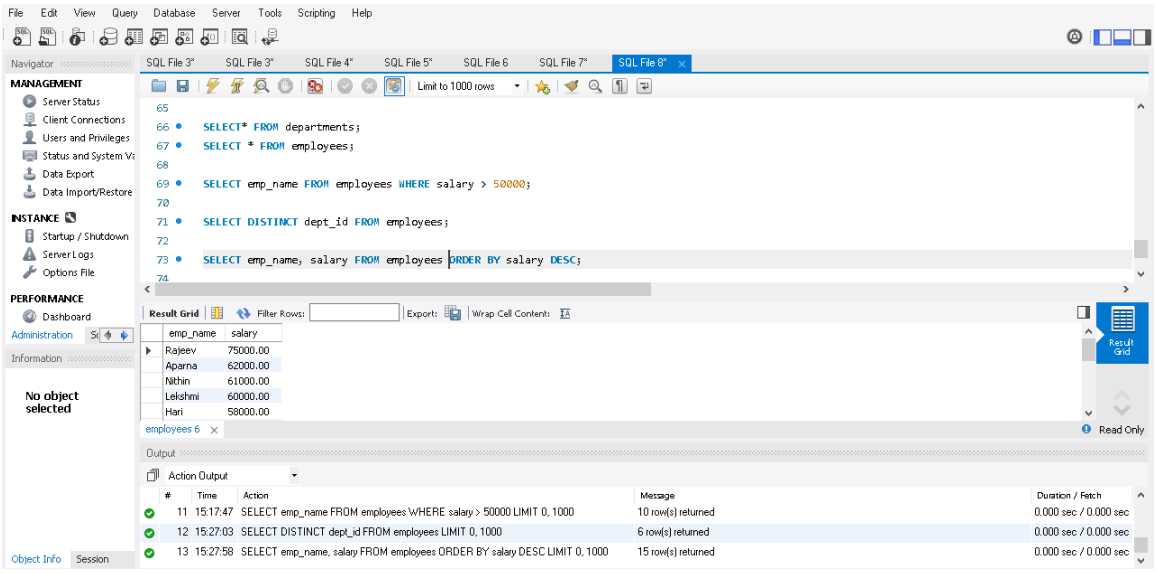
5. 3. Retrieve the list of unique department IDs from the employees table

SELECT DISTINCT dept_id FROM employees;



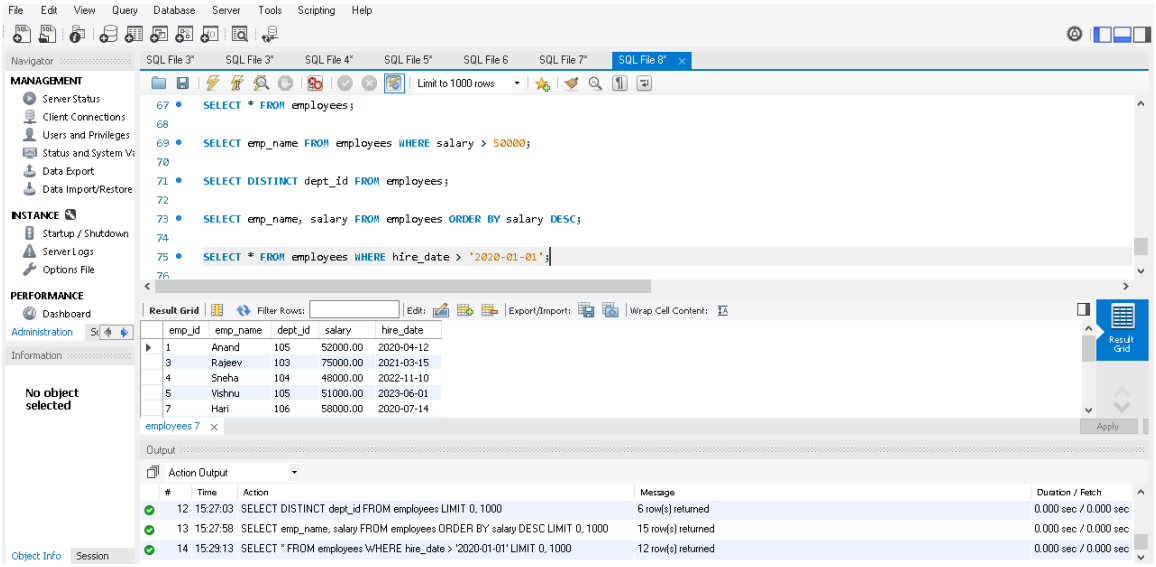
4. Display employee names and salaries sorted by salary descending

SELECT emp_name, salary FROM employees ORDER BY salary DESC;



5. Find all employees hired after January 1, 2020

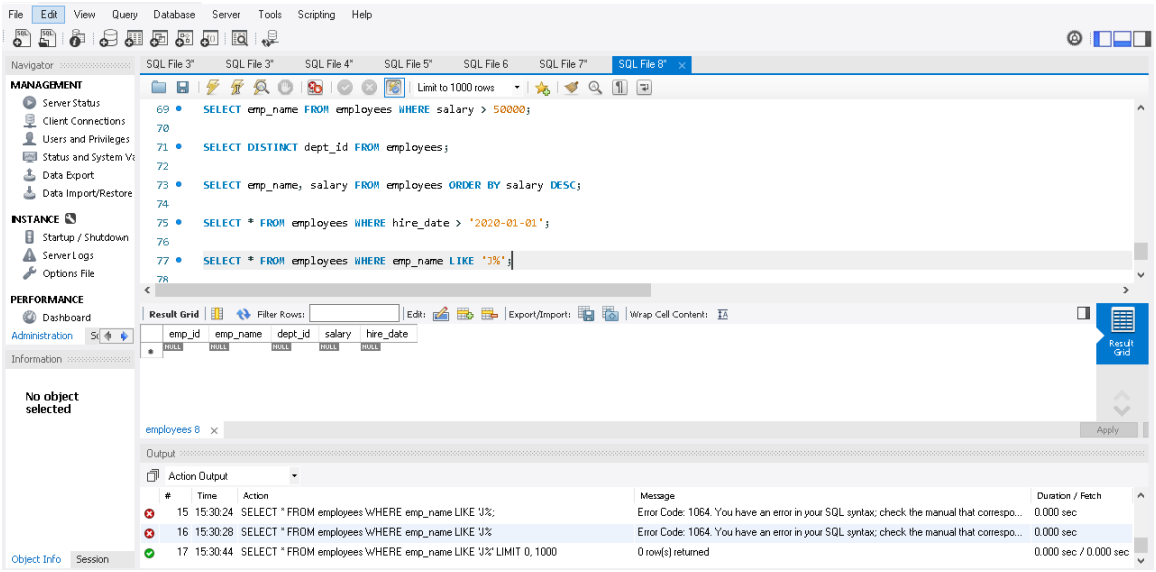
SELECT * FROM employees WHERE hire_date > '2020-01-01';



Part B:

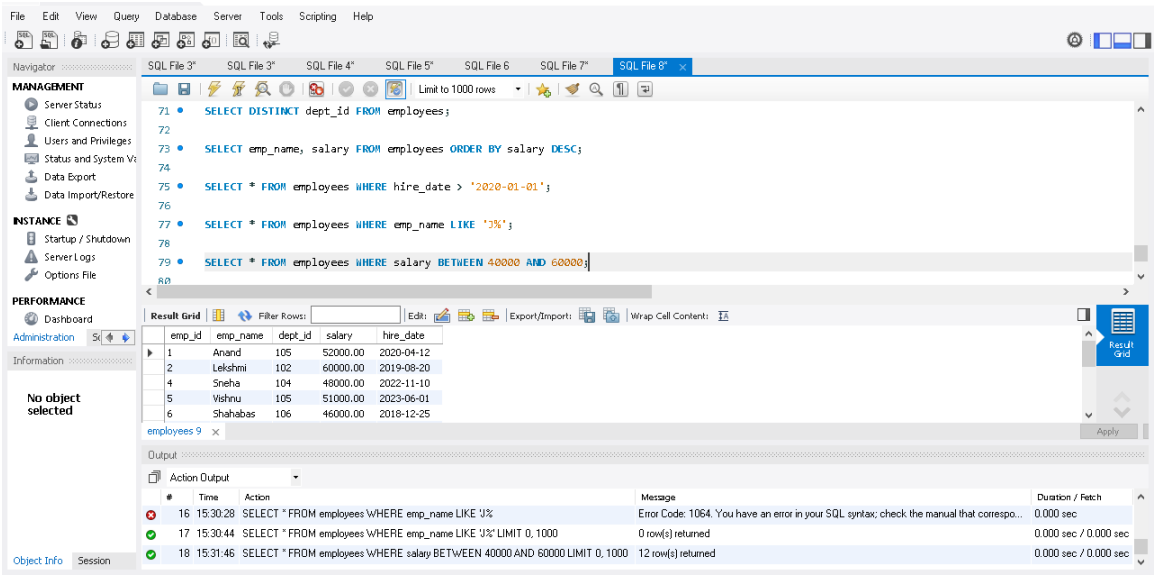
6. Find employees whose names start with 'J'

SELECT * FROM employees WHERE emp_name LIKE 'J%';



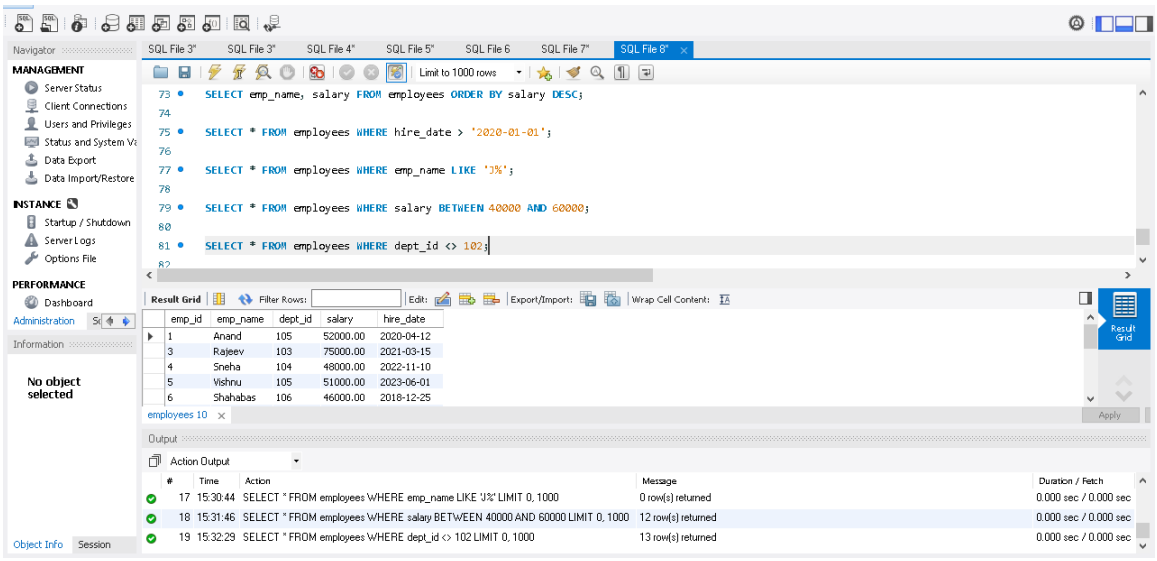
7. Get all employees with salary between 40,000 and 60,000

SELECT * FROM employees WHERE salary BETWEEN 40000 AND 60000;



8. Show employees who do not belong to department ID 102

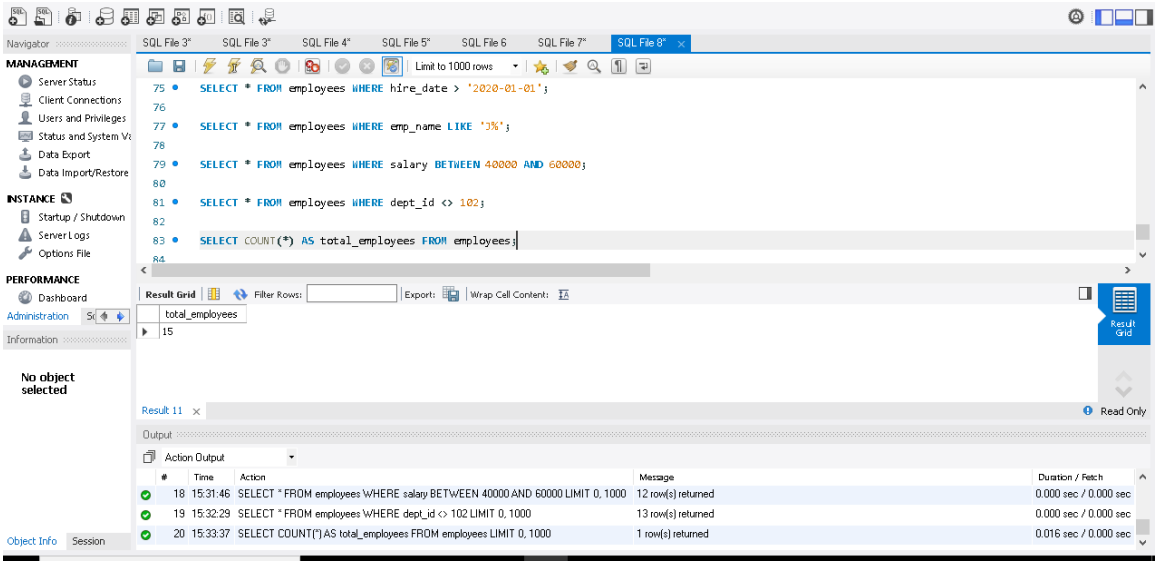
SELECT * FROM employees WHERE dept_id <> 102;



Part C:

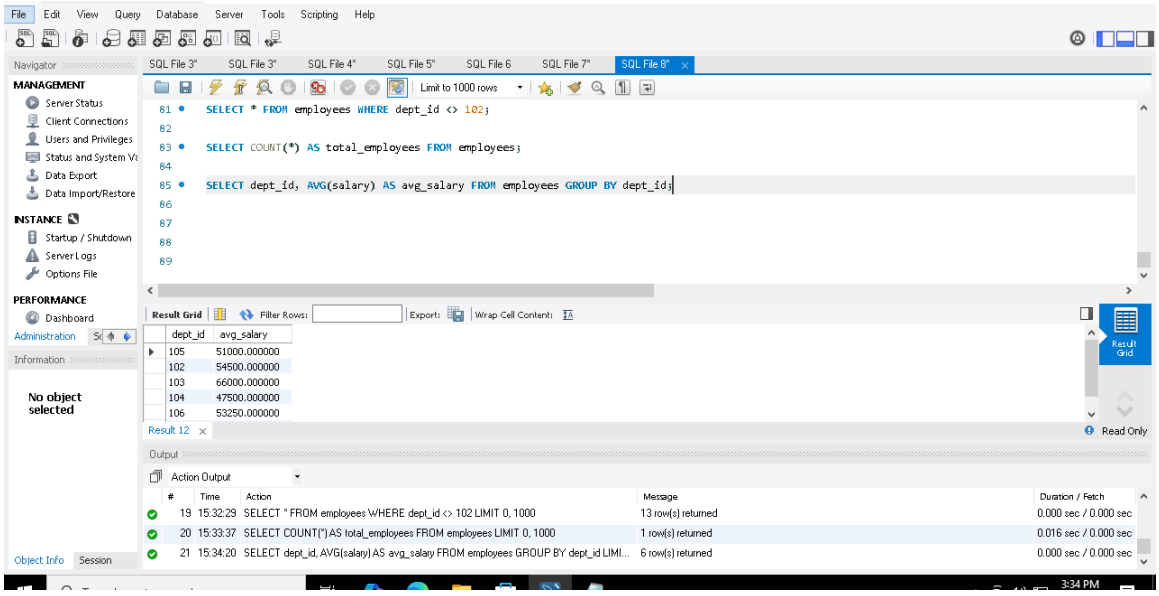
9. Find the total number of employees in the company

SELECT COUNT(*) AS total_employees FROM employees;



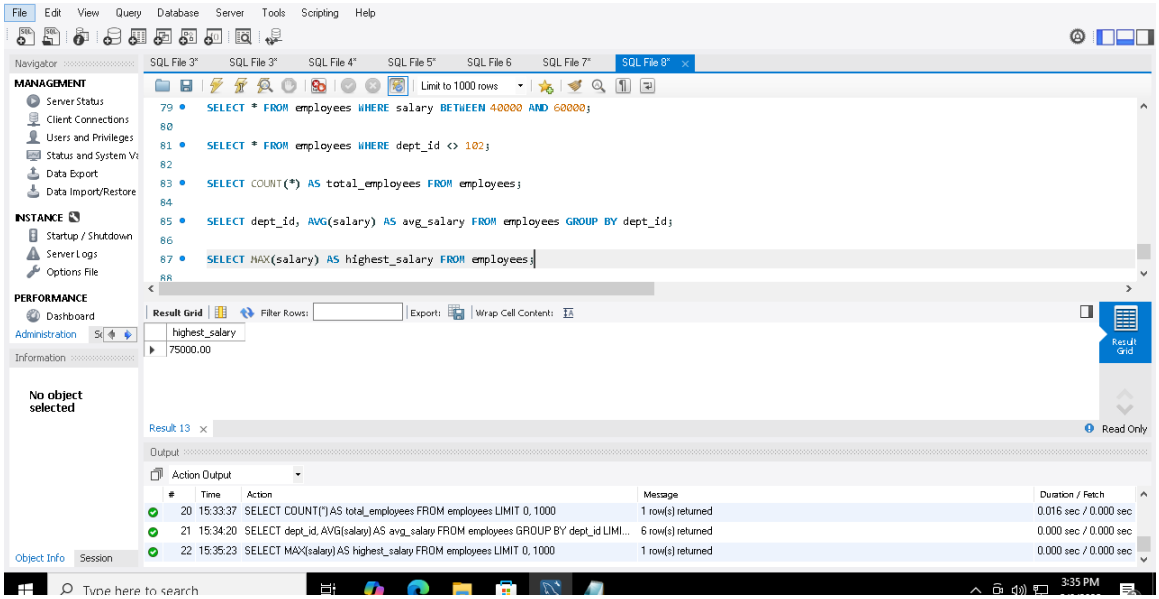
10. Show the average salary in each department

SELECT dept_id, AVG(salary) AS avg_salary FROM employees GROUP BY dept_id;



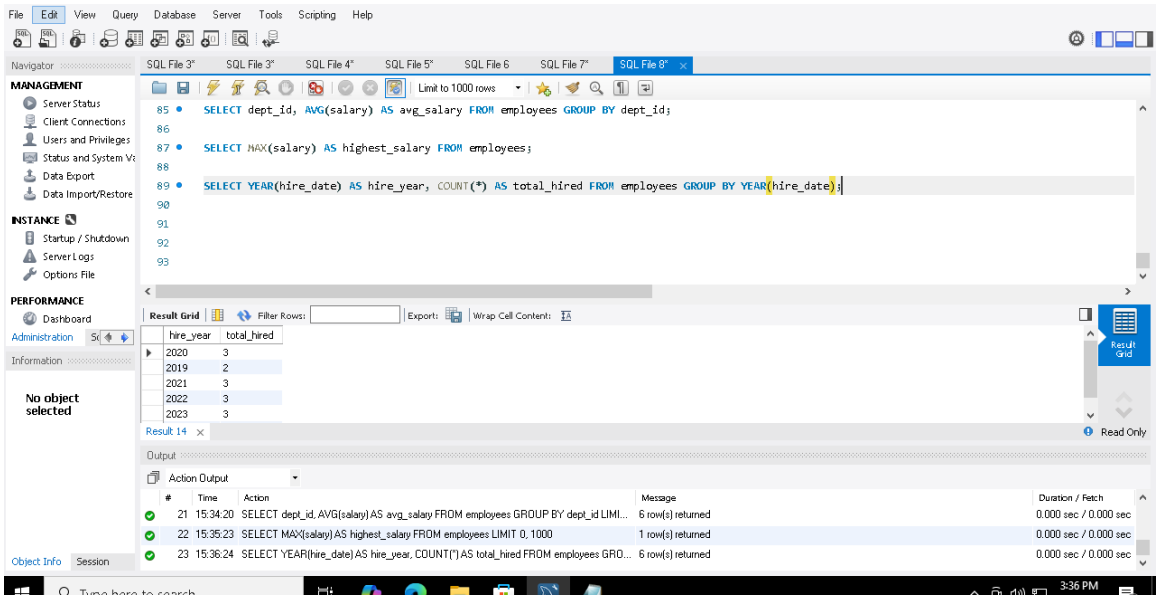
11. Find the highest salary in the employees table

SELECT MAX(salary) AS highest_salary FROM employees;



12. Count how many employees were hired in each year

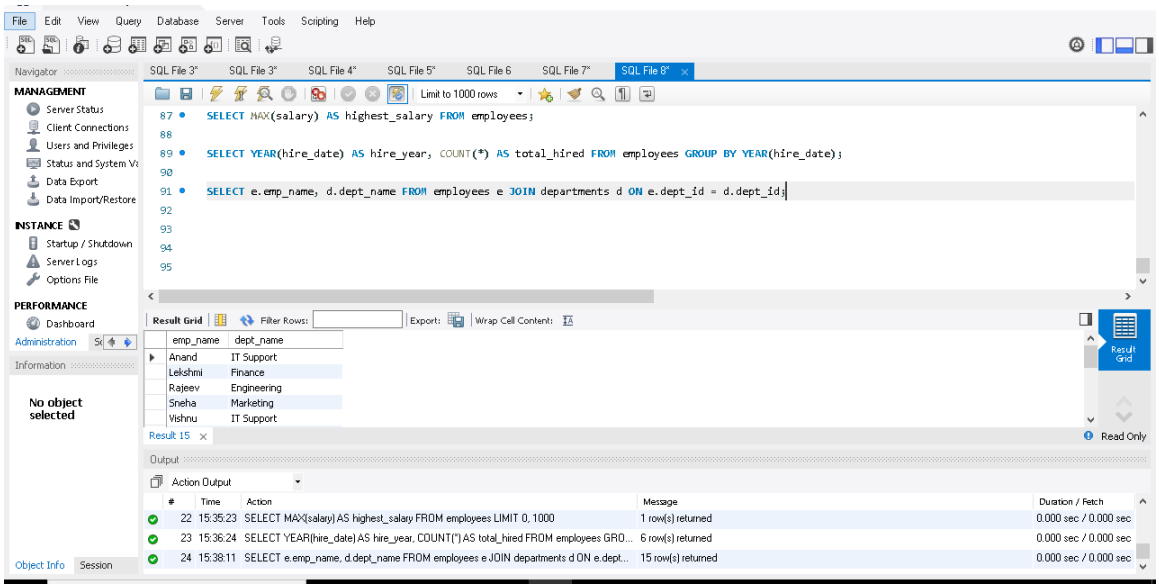
SELECT YEAR(hire_date) AS hire_year, COUNT(*) AS total_hired FROM employees GROUP BY YEAR(hire_date);



Part D:

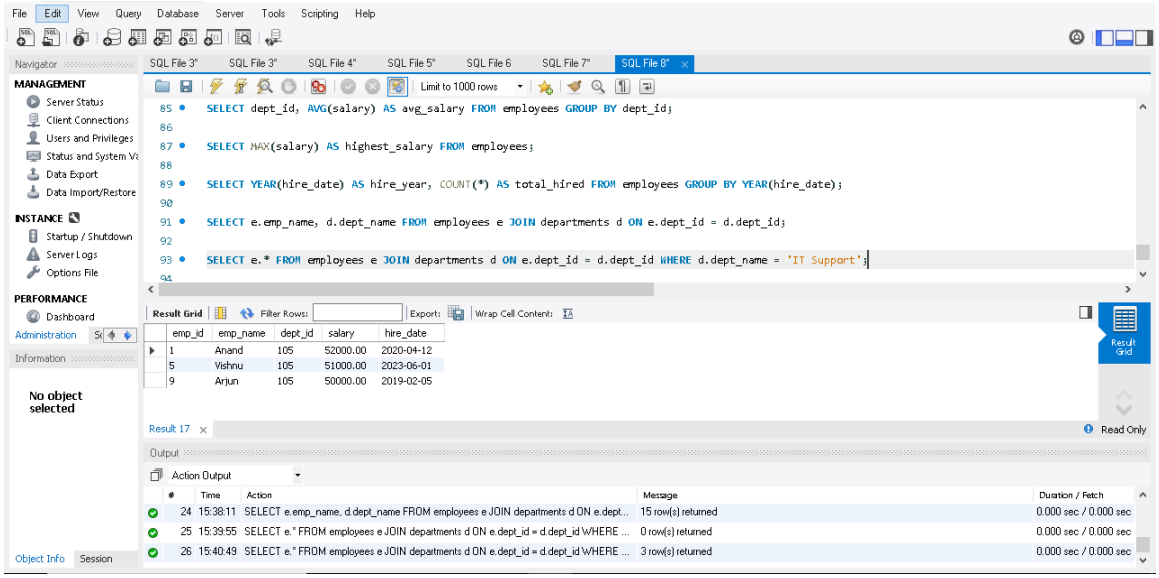
13. Display employee names along with their department names

SELECT e.emp_name, d.dept_name FROM employees e JOIN departments d ON e.dept_id = d.dept_id;



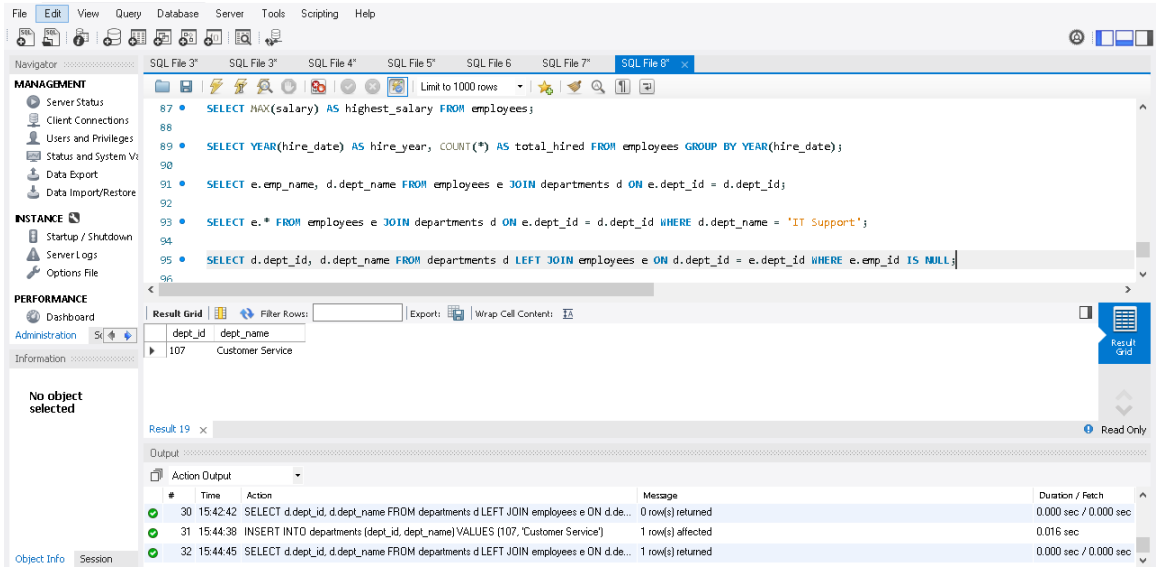
14. Find all employees working in the 'Sales' department

SELECT e.* FROM employees e JOIN departments d ON e.dept_id = d.dept_id WHERE d.dept_name = 'Sales';



15. List departments with no employees

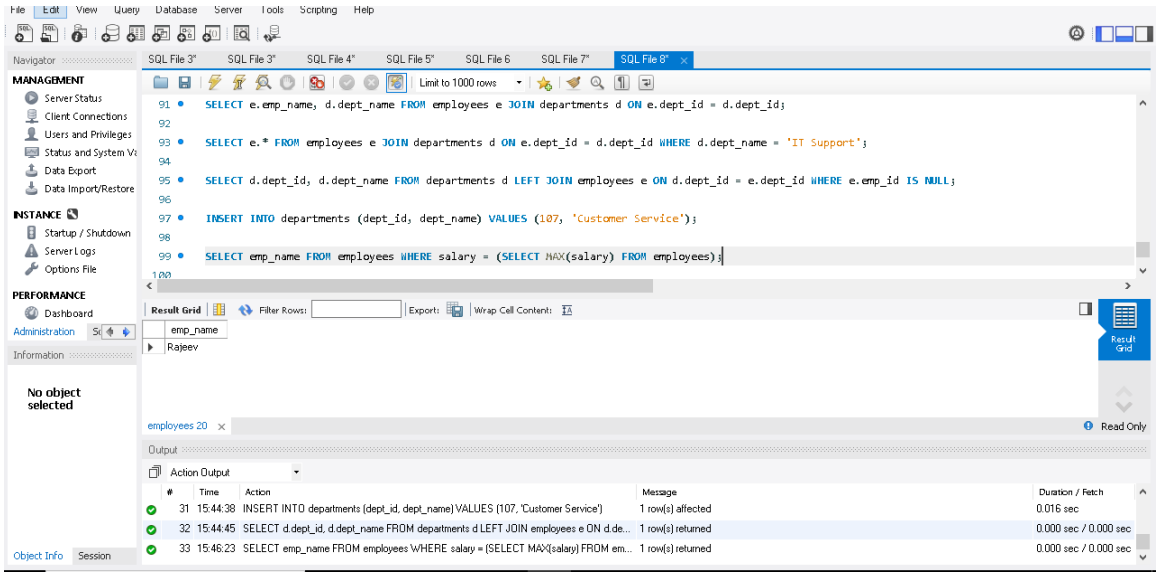
SELECT d.dept_id, d.dept_name FROM departments d LEFT JOIN employees e ON d.dept_id = e.dept_id WHERE e.emp_id IS NULL;



Part E:

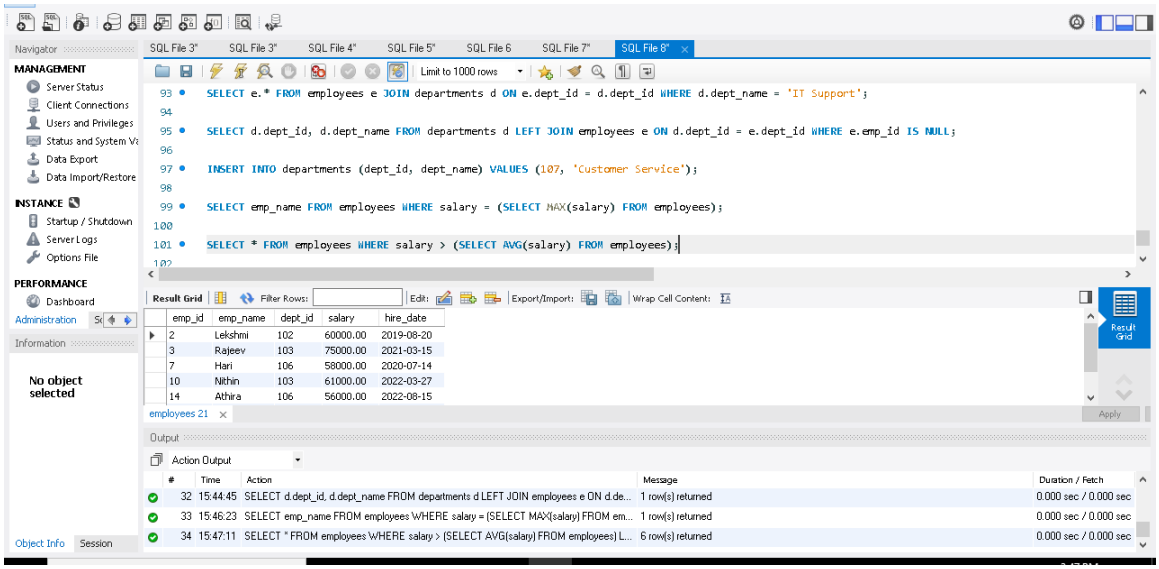
16. Find the name(s) of employee(s) with the highest salary

SELECT emp_name FROM employees WHERE salary = (SELECT MAX(salary) FROM employees);



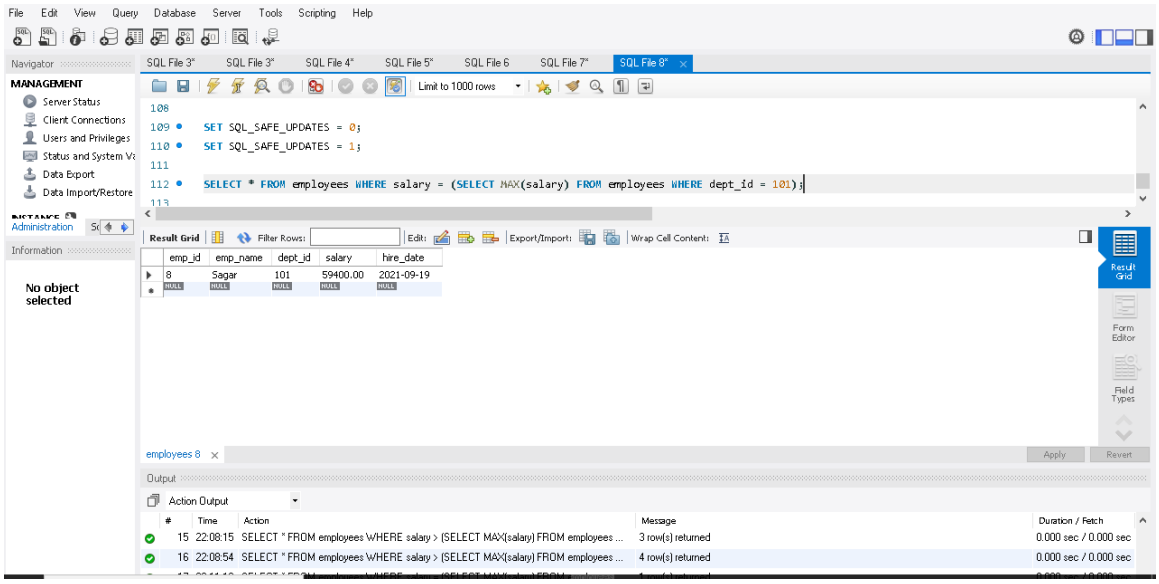
17. List employees whose salary is above the average salary of all employees

SELECT * FROM employees WHERE salary > (SELECT AVG(salary) FROM employees);



6. 18. Show employees who earn more than the maximum salary in department ID 101

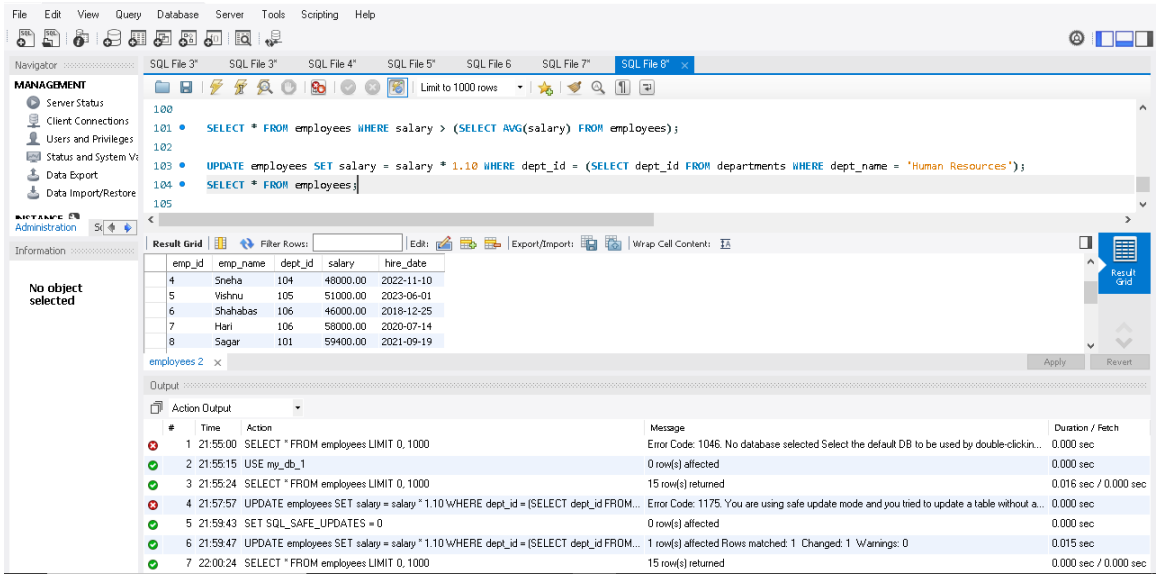
SELECT * FROM employees WHERE salary = (SELECT MAX(salary) FROM employees WHERE dept_id = 101);



Part F:

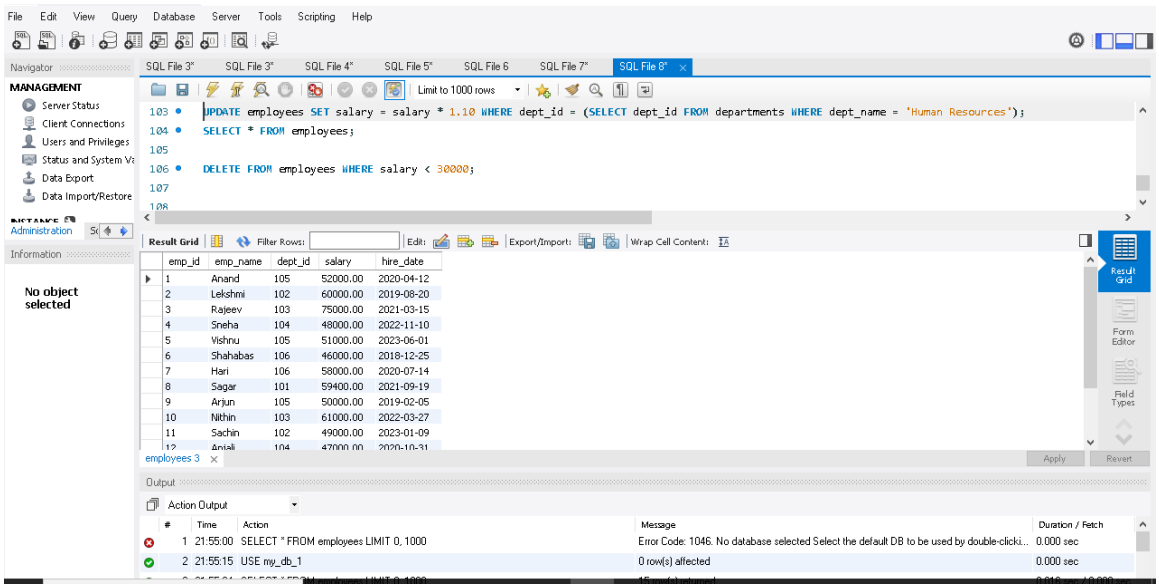
19. Update the salary by 10% for employees in the 'HR' department (Subquery)

UPDATE employees SET salary = salary * 1.10 WHERE dept_id = (SELECT dept_id FROM departments WHERE dept_name = 'Human Resources');



20. Delete employees who have a salary less than 30,000

DELETE FROM employees WHERE salary < 30000;


File Edit View Query Database Server Tools Scripting Help
Navigator
MANAGEMENT
Server Status
Client Connections
Users and Privileges
Status and System Va
Data Export
Data Import/Restore
Administration
Information
No object selected
SQL File 3*
SQL File 3*
SQL File 4*
SQL File 5*
SQL File 6
SQL File 7*
SQL File 8*
Limit to 1000 rows
103 UPDATE employees SET salary = salary * 1.10 WHERE dept_id = (SELECT dept_id FROM departments WHERE dept_name = 'Human Resources');
104 SELECT * FROM employees;
105
106 DELETE FROM employees WHERE salary < 30000;
107
Result Grid
Filter Rows:
Edit:
Export/Import:
Wrap Cell Content:
emp_id emp_name dept_id salary hire_date
1 Anand 105 52000.00 2020-04-12
2 Lekshmi 102 60000.00 2019-08-20
3 Rajeev 103 75000.00 2021-03-15
4 Sneha 104 48000.00 2022-11-10
5 Vishnu 105 51000.00 2023-06-01
6 Shahabas 106 46000.00 2018-12-25
7 Hari 106 58000.00 2020-07-14
8 Sagar 101 59400.00 2021-09-19
9 Arjun 105 50000.00 2019-02-05
10 Nithin 103 61000.00 2022-03-27
11 Sachin 102 49000.00 2023-01-09
Result Grid
Form Editor
Field Types
Apply
Revert
employees 3
Output
Action Output
Time Action Message Duration / Fetch
1 21:55:00 SELECT * FROM employees LIMIT 0, 1000 Error Code: 1046. No database selected Select the default DB to be used by double-clicki... 0.000 sec
2 21:55:15 USE my_db_1 0 row(s) affected 0.000 sec