# Institute of Computer Technology B. Tech. Computer Science and Engineering

Semester: III

**Sub: Database Management System** 

Course Code: 2CSE301

# **Practical Number:5**

# **Objective:**

Perform Queries using Group by and Having clause.

#### Queries:

1) How many employees are there in each department?

#### Code:

Select department\_id,COUNT(name) from employees GROUP BY department\_id;

#### Output:

	department_id	COUNT(name)
•	101	5
	102	5
	103	2
	104	2
	105	3

2) Find out total number of job role assigned in each department.

#### Code:

Select department\_id,COUNT(job\_role) from employees GROUP BY department\_id;

# Output:

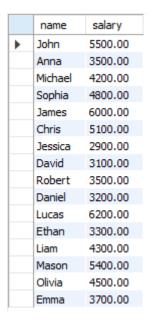
	department_id	COUNT(job_role)
•	101	5
	102	5
	103	2
	104	2
	105	3

3) Find out employee's names and salary whose having salary more than 2000. (Duplication in employee name should be removed)

# Code:

Select DISTINCT name, salary from employees where salary>2000;

# Output:



4) Find out number of employees hired after 03rd April 1991.

#### Code:

Select name from employees where hire\_date>'1991-04-03';

# Output:



5) lists the number of employees in each job role, sorted high to low.

#### Code:

Select job\_role,COUNT(employee\_id)as employee\_count from employees GROUP BY job\_role ORDER BY employee\_count DESC;

	job_role	employee_count
•	Developer	5
	Manager	4
	Analyst	3
	HR	3
	Designer	2

6) lists the number of employees in each department. Only include department with more than 3 employees in each.

# Code:

Select department\_id,COUNT(name) as name\_count from employees GROUP BY department\_id HAVING name\_count>3;

# Output:

	department_id	name_count
•	101	5
	102	5

7) Display the total amount of the salary on each department.

# Code:

Select department\_id,SUM(salary) from employees GROUP BY department\_id;

#### Output:

	department_id	SUM(salary)
•	101	20100.00
	102	22900.00
	103	12200.00
	104	6000.00
	105	10000.00

8) Count total number of employees assigned in each department whose name end with "n".

#### Code:

Select department\_id,COUNT(employee\_id) from employees where name like '%n' GROUP BY department\_id;

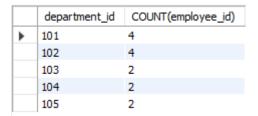
	department_id	COUNT(employee_id)
•	101	3
	105	1

9) Find out total number of employees having "a" as a character in their name in each department.

#### Code:

Select department\_id,COUNT(employee\_id) from employees where name like '%a%' GROUP BY department\_id;

# Output:



10) Find out total number of employees having salary more than average salary of all the employee in each department.

#### Code:

Select department\_id,COUNT(\*) AS num\_employees\_above\_avg from employees e WHERE salary>(SELECT AVG(salary) FROM employees Where department\_id = e.department\_id) GROUP BY department\_id;

# Output:

	department_id	num_employees_above_avg
•	101	2
	102	2
	104	1
	105	1
	103	1

11)Display total number of employees in each department whose department having more than 2 employees also display department id in descending order.

#### Code:

Select department\_id,COUNT(employee\_id) as employee\_count from employees GROUP BY department\_id HAVING employee\_count>2 ORDER BY department\_id DESC:

	department_id	employee_count
•	105	3
	102	5
	101	5

12) Display department wise average salary of employee.

#### Code:

Select department\_id,AVG(salary) as salary\_avg from employees GROUP BY department\_id;

# Output:

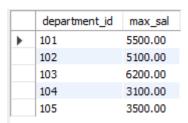
	department_id	salary_avg
•	101	4020.000000
	102	4580.000000
	103	6100.000000
	104	3000.000000
	105	3333.333333

13) Display department id of the employee along with salary whose salary is maximum in respective department..

#### Code:

Select department\_id,MAX(salary) as max\_sal from employees GROUP BY department\_id HAVING max\_sal;

#### Output:



14) Display department id of the employee along with salary whose salary is minimum in respective department.

# Code:

Select department\_id,MIN(salary) as min\_sal from employees GROUP BY department\_id HAVING min\_sal;

	department_id	min_sal
•	101	2000.00
	102	4200.00
	103	6000.00
	104	2900.00
	105	3200.00