SCHOOL OF COMPUTER SCIENCE AND ARTIFICIAL INTELLIGENCE		DEPARTMENT OF COMPUTER SCIENCE ENGINEERING	
Program Name: B. Tech		**Assignment Type: Lab**	**Academic Year:**2025-2026
Course Coordinator Name		Venkataramana Veeramsetty	
Instructor(s) Name		Dr. V. Venkataramana (Co-ordinator) Dr. T. Sampath Kumar Dr. Pramoda Patro Dr. Brij Kishor Tiwari Dr.J.Ravichander Dr. Mohammand Ali Shaik Dr. Anirodh Kumar Mr. S.Naresh Kumar Dr. RAJESH VELPULA Mr. Kundhan Kumar Ms. Ch.Rajitha Mr. M Prakash Mr. B.Raju Intern 1 (Dharma teja) Intern 2 (Sai Prasad) Intern 3 (Sowmya) NS_2 (Mounika)	
Course Code	24CS002PC215	**Course Title**	AI Assisted Coding
Year/Sem	II/I	**Regulation**	R24
Date and Day of Assignment	Week9 - Tuesday	**Time(s)**	
Duration	2 Hours	**Applicable to Batches**	
AssignmentNumber:16.2(Present assignment number)/**24**(Total number of assignments)			

Q.No.	Question	*Expected Time to complete*
1	1.1. Display all records from the employee's table. 2. 2. Display only employee names and their departments. 3. 3. Show unique department names. 4. 4. Find employees with salary greater than 50000. 5. 5. Find employees from the IT department. 6. 6. Display employees hired after 2020. 7. 7. Show employees in ascending order of salary.	Week9 - Monday

	8. 8. Show top 3 highest-paid employees. 9. 9. Count total employees in the company. 10. 10. Find the average salary of employees. 11. 11. Find the highest and lowest salary. 12. 12. Find total salary expenditure per department. 13. 13. Display departments having more than one employee. 14. 14. Show average salary by department.; 15. 15. Count employees hired each year. 16. 16. List employees with their department locations. 17. 17. Find employees working in Bangalore. 18. 18. Display all employees even if they don’t belong to a department. 19. 19. Find departments with no employees. 20. 20. Count employees in each department. 21. 21. Find employees earning above average salary. 22. 22. Find the department with the highest average salary. 23. 23. Find employees hired most recently. 24. 24. Find employees earning the second highest salary. 25. 25. Find all employees in the same department as 'Amit Sharma'. 26. 26. Increase salary by 10% for IT employees. 27. 27. Change department of employee 'Ravi' to Marketing. 28. 28. Delete employees with salary below 40000. 29. 29. Add a new column 'email' to employees. 30. 30. Update email IDs for all employees. 31. 31. Find top 2 departments by average salary. 32. 32. Find how many employees work in each city. 33. 33. Show employee count and total salary together. 34. 34. Display employees with names starting with 'A'. 35. 35. Display employees whose last name ends with 'a'. 36. 36. Find employees hired in 2020. 37. 37. Show number of days since each employee was hired. 38. 38. Display employee names in uppercase. 39. 39. Concatenate first and last names. 40. 40. Find employees whose salary is between 45000 and 60000. 41. 41. Create a view for high salary employees (>55000). 42. 42. Display all records from the view. 43. 43. Add NOT NULL constraint to department name. 44. 44. Drop the view. 45. 45. Rename the employees table to staff. 46. 46. Create a backup copy of the employees table. 47. 47. Delete all data but keep the structure. 48. 48. Drop the employees backup table.	

	49. 49. Create an index on employee last name. 50. 50. Drop the index.	

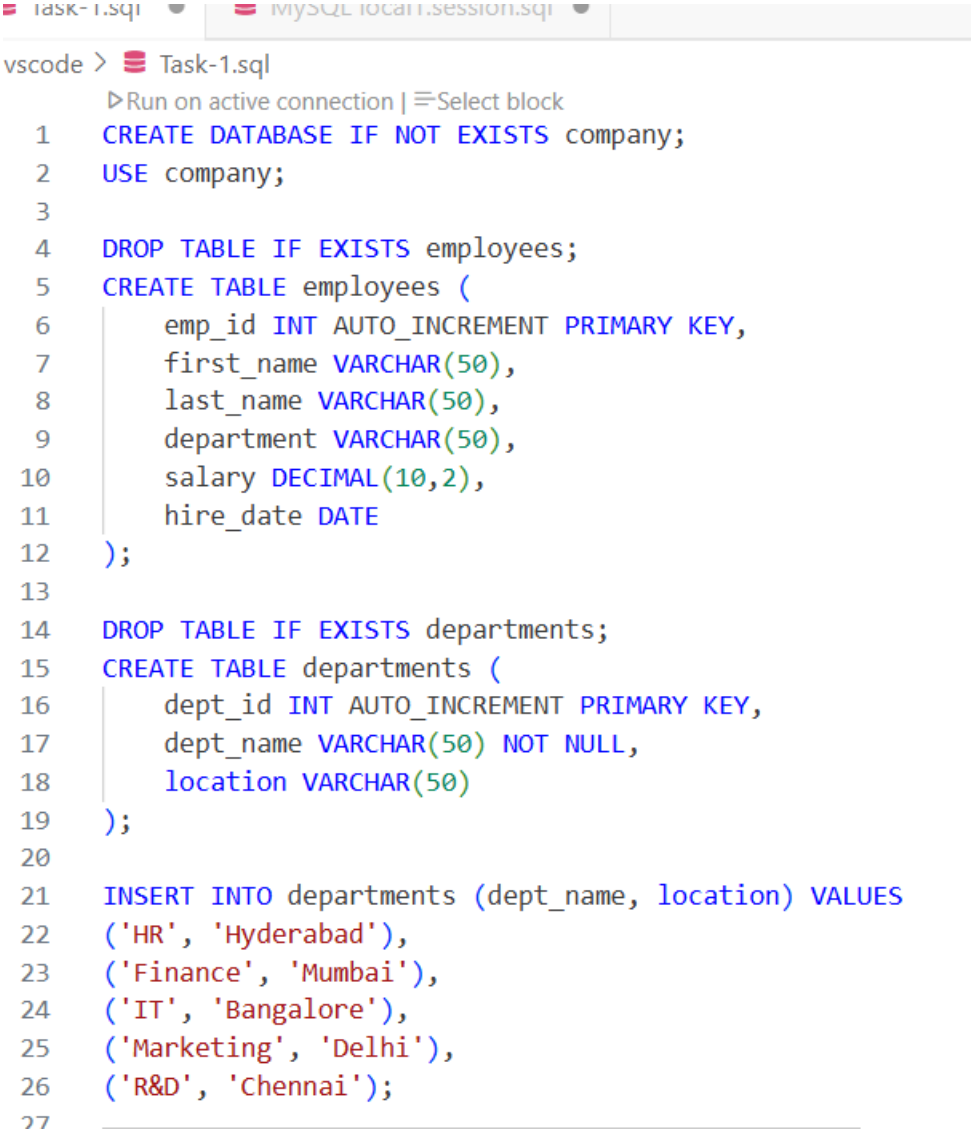
Employee Table

emp_id	first_name	last_name	department	salary	hire_date
1	Amit	Sharma	HR	45000	2020-05-20
2	Priya	Patel	Finance	60000	2021-02-10
3	Ravi	Kumar	IT	55000	2019-08-14
4	Neha	Reddy	Marketing	48000	2022-01-05
5	Arjun	Singh	IT	62000	2020-09-12

Department Table

dept_id	dept_name	location
1	HR	Hyderabad
2	Finance	Mumbai
3	IT	Bangalore
4	Marketing	Chennai
5	Operations	Delhi

CODE:


Task-1.sql
MySQL local1.session.sql
vscode > Task-1.sql
Run on active connection | Select block
CREATE DATABASE IF NOT EXISTS company;
USE company;
DROP TABLE IF EXISTS employees;
CREATE TABLE employees (
emp_id INT AUTO_INCREMENT PRIMARY KEY,
first_name VARCHAR(50),
last_name VARCHAR(50),
department VARCHAR(50),
salary DECIMAL(10,2),
hire_date DATE
);
DROP TABLE IF EXISTS departments;
CREATE TABLE departments (
dept_id INT AUTO_INCREMENT PRIMARY KEY,
dept_name VARCHAR(50) NOT NULL,
location VARCHAR(50)
);
INSERT INTO departments (dept_name, location) VALUES
('HR', 'Hyderabad'),
('Finance', 'Mumbai'),
('IT', 'Bangalore'),
('Marketing', 'Delhi'),
('R&D', 'Chennai');

```sql
INSERT INTO employees (first_name, last_name, department, salary, hire_date) VALUES
('Amit', 'Sharma', 'HR', 45000, '2020-05-20'),
('Priya', 'Patel', 'Finance', 60000, '2021-02-10'),
('Ravi', 'Kumar', 'IT', 55000, '2019-08-14'),
('Neha', 'Reddy', 'Marketing', 48000, '2022-01-05'),
('Arjun', 'Singh', 'IT', 62000, '2020-09-12'),
('Sonia', 'Verma', 'Finance', 70000, '2021-06-01');

SELECT * FROM employees;
SELECT first_name, last_name, department FROM employees;
SELECT DISTINCT department FROM employees;
SELECT * FROM employees WHERE salary > 50000;
SELECT * FROM employees WHERE department = 'IT';
SELECT * FROM employees WHERE hire_date > '2020-12-31';
SELECT * FROM employees ORDER BY salary ASC;
SELECT * FROM employees ORDER BY salary DESC LIMIT 3;
SELECT COUNT(*) AS total_employees FROM employees;
SELECT AVG(salary) AS average_salary FROM employees;
SELECT department, COUNT(*) AS dept_count FROM employees GROUP BY department;
```

OUTPUT:

employees (first_name, last_... | SELECT * FROM employees; | Desc employees; | SELECT first_name, last_name, department... | SELECT DISTINCT department FROM

Field	Type	Null	Key	Default	Extra
Filter...	Filter...	Filter...	Filter...	Filter...	Filter...
emp_id	int	NO	PRI	NULL	auto_increment
first_name	varchar(50)	YES		NULL	
last_name	varchar(50)	YES		NULL	
department	varchar(50)	YES		NULL	
salary	decimal(10,2)	YES		NULL	
hire_date	date	YES		NULL	

emp_id	first_name	last_name	department	salary	hire_date
Filter...	Filter...	Filter...	Filter...	Filter...	Filter...
1	Amit	Sharma	HR	45000	2020-05-20T00:00:00.000Z
2	Priya	Patel	Finance	60000	2021-02-10T00:00:00.000Z
3	Ravi	Kumar	IT	55000	2019-08-14T00:00:00.000Z
4	Neha	Reddy	Marketing	48000	2022-01-05T00:00:00.000Z
5	Arjun	Singh	IT	62000	2020-09-12T00:00:00.000Z
6	Sonia	Verma	Finance	70000	2021-06-01T00:00:00.000Z

first_name	last_name	department
Filter...	Filter...	Filter...
Amit	Sharma	HR
Priya	Patel	Finance
Ravi	Kumar	IT
Neha	Reddy	Marketing
Arjun	Singh	IT
Sonia	Verma	Finance

department
Filter...
HR
Finance
IT
Marketing

es; SELECT first_name, last_name, department... SELECT DISTINCT department FROM empl... SELECT * FROM employees WHERE salary ... SELECT * FROM employe

emp_id	first_name	last_name	department	salary	hire_date
Filter...	Filter...	Filter...	Filter...	Filter...	Filter...
2	Priya	Patel	Finance	60000	2021-02-10T00:00:00.000Z
3	Ravi	Kumar	IT	55000	2019-08-14T00:00:00.000Z
5	Arjun	Singh	IT	62000	2020-09-12T00:00:00.000Z
6	Sonia	Verma	Finance	70000	2021-06-01T00:00:00.000Z

emp_id	first_name	last_name	department	salary	hire_date
Filter...	Filter...	Filter...	Filter...	Filter...	Filter...
3	Ravi	Kumar	IT	55000	2019-08-14T00:00:00.000Z
5	Arjun	Singh	IT	62000	2020-09-12T00:00:00.000Z

CT * FROM employees WHERE depart... SELECT * FROM employees WHERE hire_d... SELECT * FROM employees ORDER BY sala... SELECT * FROM employ

emp_id	first_name	last_name	department	salary	hire_date
Filter...	Filter...	Filter...	Filter...	Filter...	Filter...
2	Priya	Patel	Finance	60000	2021-02-10T00:00:00.000Z
4	Neha	Reddy	Marketing	48000	2022-01-05T00:00:00.000Z
6	Sonia	Verma	Finance	70000	2021-06-01T00:00:00.000Z

emp_id	first_name	last_name	department	salary	hire_date
Filter...	Filter...	Filter...	Filter...	Filter...	Filter...
1	Amit	Sharma	HR	45000	2020-05-20T00:00:00.000Z
4	Neha	Reddy	Marketing	48000	2022-01-05T00:00:00.000Z
3	Ravi	Kumar	IT	55000	2019-08-14T00:00:00.000Z
2	Priya	Patel	Finance	60000	2021-02-10T00:00:00.000Z
5	Arjun	Singh	IT	62000	2020-09-12T00:00:00.000Z
6	Sonia	Verma	Finance	70000	2021-06-01T00:00:00.000Z

ROM employees WHERE depart... | SELECT * FROM employees WHERE hire_d... | SELECT * FROM employees ORDER BY sala... | SELECT * FROM employees ORDER BY sala...

emp_id	first_name	last_name	department	salary	hire_date
Filter...	Filter...	Filter...	Filter...	Filter...	Filter...
6	Sonia	Verma	Finance	70000	2021-06-01T00:00:00.000Z
5	Arjun	Singh	IT	62000	2020-09-12T00:00:00.000Z
2	Priya	Patel	Finance	60000	2021-02-10T00:00:00.000Z

ROM employees ORDER BY sala... | SELECT COUNT(*) AS total_employees FR...

total_employees
Filter...
6

ROM employees ORDER BY sala... | SELECT COUNT(*) AS total_employees FR... | SELECT AVG(salary) AS average_salary FR... | S

average_salary
Filter...
56666.666667

ROM employees ORDER BY sala... | SELECT COUNT(*) AS total_employees FR... | SELECT AVG(salary) AS average_salary FR... | SELECT department, COUNT(*) AS dept_c...

department	dept_count
Filter...	Filter...
HR	1
Finance	2
IT	2
Marketing	1