LAB # 03
MUHAMMAD ANAS
CS221004

```
56
57      -- LAB 03 ASSIGNMENT
58
59  •   ALTER TABLE Employees
60      DROP COLUMN first_name,
61      DROP COLUMN last_name;
62
63  •   DESCRIBE Employees;
64
65
66
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

Field	Type	Null	Key	Default	Extra
employee_id	int	YES		NULL	
designation	varchar(50)	YES		NULL	
salary	float(7,2)	YES		NULL	
birth_date	date	YES		NULL	
hire_date	date	YES		NULL	
department	varchar(50)	YES		NULL	

Result 2

Output

Action Output

#	Time	Action	Message
1	07:03:34	use Lab_02	0 row(s) affe
2	07:03:40	SELECT first_name, last_name, salary, salary * 0.2 AS Bonus, salary * 1.2 AS "New Salary" FROM ...	15 row(s) ret
3	07:04:18	ALTER TABLE Employees DROP COLUMN first_name, DROP COLUMN last_name	0 row(s) affe
4	07:04:21	DESCRIBE Employees	7 row(s) retu

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58
59  •   ALTER TABLE Employees
60      DROP COLUMN first_name,
61      DROP COLUMN last_name;
62
63  •   DESCRIBE Employees;
64
65  •   ALTER TABLE Employees
66      ADD COLUMN employee_name VARCHAR(100) AFTER employee_id;
67
68  •   DESCRIBE Employees;
69
70
71
```

esult Grid | Filter Rows: | Export: | Wrap Cell Content:

Field	Type	Null	Key	Default	Extra
employee_id	int	YES		NULL	
employee_name	varchar(100)	YES		NULL	
designation	varchar(50)	YES		NULL	
salary	float(7,2)	YES		NULL	
birth_date	date	YES		NULL	
hire_date	date	YES		NULL	

```
58
59  •   ALTER TABLE Employees
60      DROP COLUMN first_name,
61      DROP COLUMN last_name;
62
63  •   DESCRIBE Employees;
64
65  •   ALTER TABLE Employees
66      ADD COLUMN employee_name VARCHAR(100) AFTER employee_id;
67
68  •   DESCRIBE Employees;
69
70  •   SELECT CONCAT(employee_name, ', ', designation, ', ', department) AS employee_details
71      FROM Employees;
72
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

employee_details
NULL
NULL
NULL
NULL
NULL
NULL

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```
63 •  DESCRIBE Employees;
64
65 •  ALTER TABLE Employees
66    ADD COLUMN employee_name VARCHAR(100) AFTER employee_id;
67
68 •  DESCRIBE Employees;
69
70 •  SELECT CONCAT(employee_name, ', ', designation, ', ', department) AS employee_details
71    FROM Employees;
72
73 •  SELECT COUNT(*) AS total_auditors
74    FROM Employees
75    WHERE designation = 'Auditor';
76
77
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

total_auditors
6

```
68 •  DESCRIBE Employees;
69
70 •  SELECT CONCAT(employee_name, ', ', designation, ', ', department) AS employee_details
71    FROM Employees;
72
73 •  SELECT COUNT(*) AS total_auditors
74    FROM Employees
75    WHERE designation = 'Auditor';
76
77 •  SELECT city, department, COUNT(*) AS num_employees
78    FROM Employees
79    GROUP BY city, department;
80
81
```

esult Grid | Filter Rows: | Export: | Wrap Cell Content:

city	department	num_employees
Paris	HR	3
Lezenburg	IT	3
Rome	Finance	3
Houston	HR	3
Boston	IT	3
Seattle	Finance	3

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```
71      FROM Employees;
72
73  •   SELECT COUNT(*) AS total_auditors
74      FROM Employees
75      WHERE designation = 'Auditor';
76
77  •   SELECT city, department, COUNT(*) AS num_employees
78      FROM Employees
79      GROUP BY city, department;
80
81  •   SELECT department, AVG(salary) AS average_salary
82      FROM Employees
83      GROUP BY department;
84
85
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

department	average_salary
HR	52333.333333
IT	58111.111111
Finance	46500.000000

```
76
77  •   SELECT city, department, COUNT(*) AS num_employees
78      FROM Employees
79      GROUP BY city, department;
80
81  •   SELECT department, AVG(salary) AS average_salary
82      FROM Employees
83      GROUP BY department;
84
85  •   SELECT department, COUNT(*) AS num_employees_over_8_years
86      FROM Employees
87      WHERE DATEDIFF(CURDATE(), hire_date) > 8*365
88      GROUP BY department;
89
90
```

esult Grid | Filter Rows: | Export: | Wrap Cell Content:

department	num_employees_over_8_years

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```
81 •  SELECT department, AVG(salary) AS average_salary
82    FROM Employees
83    GROUP BY department;
84
85 •  SELECT department, COUNT(*) AS num_employees_over_8_years
86    FROM Employees
87    WHERE DATEDIFF(CURDATE(), hire_date) > 8*365
88    GROUP BY department;
89
90 •  SELECT designation, SUM(salary) AS total_salary_expense
91    FROM Employees
92    GROUP BY designation
93    ORDER BY total_salary_expense DESC;
94
95
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

designation	total_salary_expense
Developer	523000.00
Manager	471000.00
Auditor	279000.00

```
84
85 •  SELECT department, COUNT(*) AS num_employees_over_8_years
86    FROM Employees
87    WHERE DATEDIFF(CURDATE(), hire_date) > 8*365
88    GROUP BY department;
89
90 •  SELECT designation, SUM(salary) AS total_salary_expense
91    FROM Employees
92    GROUP BY designation
93    ORDER BY total_salary_expense DESC;
94
95 •  SELECT COUNT(*) AS "Number of Employees"
96    FROM Employees;
97
98
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

Number of Employees
24

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```
92      GROUP BY designation
93      ORDER BY total_salary_expense DESC;
94
95      SELECT COUNT(*) AS "Number of Employees"
96      FROM Employees;
97
98      SELECT city, department, ROUND(AVG(salary), 2) AS average_salary
99      FROM Employees
100     GROUP BY city, department
101     HAVING AVG(salary) >= 70000;
102
103
104
105
106
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

city	department	average_salary