

LAB 1

Q1.

```
mysql> create database wds;  
Query OK, 1 row affected (0.13 sec)
```

Q2.

```
mysql> create table Employee(  
-> id int,  
-> first_name CHAR(10),  
-> last_name CHAR(10),  
-> salary FLOAT,  
-> joining_date DATE,  
-> dept_id VARCHAR(30)  
-> );  
Query OK, 0 rows affected (1.23 sec)
```

```
mysql> select * from Department;
```

```
+-----+-----+  
| id    | dept_name          |  
+-----+-----+  
| AE     | Aerospace           |  
| CS123  | Computer Science   |  
| ECE    | Electronics & Comm |  
| EE     | Electrical Engineering |  
| ME124  | Mechanical Engineering |  
+-----+-----+  
5 rows in set (0.00 sec)
```

```
mysql> select * from Employee;
```

```
+-----+-----+-----+-----+-----+-----+  
| id | first_name | last_name | salary | joining_date | dept_id |  
+-----+-----+-----+-----+-----+-----+  
| 452 | Sadam      | Hussain   | 45000.4 | 2017-06-15   | CS123   |  
| 453 | John       | John      | 45000.4 | 2019-06-15   | CS123   |  
| 454 | Akshay     | Jalan     | 45000.4 | 2011-09-15   | CS123   |  
| 455 | Nishant    | Wankhede  | 45406.4 | 2019-09-05   | CS123   |  
| 456 | Akansha    | J         | 85000.5 | 2009-09-15   | EE       |  
| 457 | Tanwi      | K         | 95000.5 | 2018-09-15   | ECE      |  
| 458 | Ayush      | John      | 45450.4 | 2019-09-15   | ME124   |  
| 459 | Karthik    | John      | 45000.4 | 2019-09-15   | CS123   |  
| 460 | Amman      | Khan      | 75000.5 | 1999-09-15   | EE       |  
| 461 | Akshay     | Wankhede  | 45600.4 | 2011-09-15   | ECE      |  
+-----+-----+-----+-----+-----+-----+
```

```
mysql> create table Department(
-> id VARCHAR(30),
-> dept_name CHAR(50)
-> );
Query OK, 0 rows affected (0.61 sec)
```

```
mysql> ALTER TABLE Department
-> ADD PRIMARY KEY(id);
Query OK, 0 rows affected (1.26 sec)
Records: 0 Duplicates: 0 Warnings: 0
```

```
mysql> ALTER TABLE Employee
-> ADD FOREIGN KEY (dept_id) REFERENCES Department(id);
Query OK, 0 rows affected (1.39 sec)
Records: 0 Duplicates: 0 Warnings: 0
```

```
mysql> ALTER TABLE Employee ADD PRIMARY KEY(id);
Query OK, 0 rows affected (1.42 sec)
Records: 0 Duplicates: 0 Warnings: 0
```

Q3.

```
mysql> select * from Employee ORDER BY 'salary' DESC limit 5,1;
+-----+-----+-----+-----+-----+-----+
| id | first_name | last_name | salary | joining_date | dept_id |
+-----+-----+-----+-----+-----+-----+
| 457 | Tanwi      | K         | 95000.5 | 2018-09-15   | ECE      |
+-----+-----+-----+-----+-----+-----+
1 row in set (0.00 sec)
```

Q4.

```
mysql> select * from Employee WHERE salary between 5000 and 50000;
+-----+-----+-----+-----+-----+-----+
| id | first_name | last_name | salary | joining_date | dept_id |
+-----+-----+-----+-----+-----+-----+
| 452 | Sadam      | Hussain   | 45000.4 | 2017-06-15   | CS123    |
| 453 | John       | John      | 45000.4 | 2019-06-15   | CS123    |
| 454 | Akshay     | Jalan     | 45000.4 | 2011-09-15   | CS123    |
| 455 | Nishant    | Wankhede  | 45406.4 | 2019-09-05   | CS123    |
| 458 | Ayush      | John      | 45450.4 | 2019-09-15   | ME124    |
| 459 | Karthik    | John      | 45000.4 | 2019-09-15   | CS123    |
| 461 | Akshay     | Wankhede  | 45600.4 | 2011-09-15   | ECE      |
+-----+-----+-----+-----+-----+-----+
7 rows in set (0.00 sec)
```

Q5.

```
mysql> select first_name from Employee WHERE first_name LIKE '_a%s_';
+-----+
| first_name |
+-----+
| Manish     |
+-----+
1 row in set (0.00 sec)
```

Q6.

```
mysql> select first_name, SUBSTRING(last_name,1,LENGTH(last_name)-3) AS Last_name from Employee;
+-----+-----+
| first_name | Last_name |
+-----+-----+
| Saddam    | Huss     |
| John      | J        |
| Akshay    | Ja       |
| Nishant   | Wankh    |
| Akansha   |          |
| Tanwi     |          |
| Ayush     | J        |
| Karthik   | J        |
| Amman     | K        |
| Akshay    | Wankh    |
| Karthay   |          |
| Manish    |          |
+-----+-----+
```

Q7.

```
Activities Terminal Sep 15 15:27 cse@cloud60: ~
+-----+-----+
| Karthay   |          |
| Manish    |          |
+-----+-----+
12 rows in set (0.00 sec)

mysql> select count(*) from Employee;
+-----+
| count(*) |
+-----+
| 12       |
+-----+
1 row in set (0.01 sec)

mysql> select SUM(salary) from Employee;
+-----+
| SUM(salary) |
+-----+
| 683460.50390625 |
+-----+
1 row in set (0.01 sec)

mysql> select MIN(salary), MAX(salary) from Employee;
+-----+-----+
| MIN(salary) | MAX(salary) |
+-----+-----+
| 45000.4     | 95000.5     |
+-----+-----+
1 row in set (0.00 sec)

mysql> select AVG(salary) from Employee;
+-----+
| AVG(salary) |
+-----+
| 56955.0419921875 |
+-----+
1 row in set (0.00 sec)

mysql>
```

Q8.

```
Activities Terminal Sep 15 15:45 cse@cloud60: ~
mysql> select Employee.id, Employee.first_name, Department.dept_name FROM Employee LEFT JOIN Department ON Employee.dept_id=Department.id;
+-----+-----+-----+
| id | first_name | dept_name |
+-----+-----+-----+
| 452 | Saddam | Computer Science |
| 453 | John | Computer Science |
| 454 | Akshay | Computer Science |
| 455 | Nishant | Computer Science |
| 456 | Akansha | Electrical Engineering |
| 457 | Tanwi | Electronics & Comm |
| 458 | Ayush | Mechanical Engineering |
| 459 | Karthik | Computer Science |
| 460 | Amman | Electrical Engineering |
| 461 | Akshay | Electronics & Comm |
| 462 | Karthay | Electrical Engineering |
| 463 | Manish | Electrical Engineering |
+-----+-----+-----+
12 rows in set (0.00 sec)

mysql> select Employee.id, Employee.first_name, Department.dept_name FROM Employee RIGHT JOIN Department ON Employee.dept_id=Department.id;
+-----+-----+-----+
| id | first_name | dept_name |
+-----+-----+-----+
| NULL | NULL | Aerospace |
| 452 | Saddam | Computer Science |
| 453 | John | Computer Science |
| 454 | Akshay | Computer Science |
| 455 | Nishant | Computer Science |
| 459 | Karthik | Computer Science |
| 457 | Tanwi | Electronics & Comm |
| 461 | Akshay | Electronics & Comm |
| 456 | Akansha | Electrical Engineering |
| 460 | Amman | Electrical Engineering |
| 462 | Karthay | Electrical Engineering |
| 463 | Manish | Electrical Engineering |
| 458 | Ayush | Mechanical Engineering |
+-----+-----+-----+
13 rows in set (0.01 sec)
```

```
Activities Terminal Sep 15 15:44 cse@cloud60: ~
mysql> select Employee.id, Employee.first_name, Department.dept_name FROM Employee INNER JOIN Department ON Employee.dept_id=Department.id;
+-----+-----+-----+
| id | first_name | dept_name |
+-----+-----+-----+
| 452 | Saddam | Computer Science |
| 453 | John | Computer Science |
| 454 | Akshay | Computer Science |
| 455 | Nishant | Computer Science |
| 459 | Karthik | Computer Science |
| 457 | Tanwi | Electronics & Comm |
| 461 | Akshay | Electronics & Comm |
| 456 | Akansha | Electrical Engineering |
| 460 | Amman | Electrical Engineering |
| 462 | Karthay | Electrical Engineering |
| 463 | Manish | Electrical Engineering |
| 458 | Ayush | Mechanical Engineering |
+-----+-----+-----+
12 rows in set (0.00 sec)

mysql> select Employee.id, Employee.first_name, Department.dept_name FROM Employee LEFT JOIN Department ON Employee.dept_id=Department.id;
+-----+-----+-----+
| id | first_name | dept_name |
+-----+-----+-----+
| 452 | Saddam | Computer Science |
| 453 | John | Computer Science |
| 454 | Akshay | Computer Science |
| 455 | Nishant | Computer Science |
| 456 | Akansha | Electrical Engineering |
| 457 | Tanwi | Electronics & Comm |
| 458 | Ayush | Mechanical Engineering |
| 459 | Karthik | Computer Science |
| 460 | Amman | Electrical Engineering |
| 461 | Akshay | Electronics & Comm |
| 462 | Karthay | Electrical Engineering |
| 463 | Manish | Electrical Engineering |
+-----+-----+-----+
12 rows in set (0.00 sec)
```

```
Activities Terminal Sep 15 16:45 cse@cloud60: ~
ERROR 1304 (42000): PROCEDURE lab1 already exists
mysql> create procedure lab_1()
-> begin
-> SELECT * FROM Employee ORDER BY 'salary' DESC limit 5,1;
-> SELECT * FROM Employee Where salary between 5000 and 50000;
-> SELECT first_name FROM Employee WHERE first_name LIKE '_a%';
-> SELECT first_name, SUBSTRING(last_name,1,LENGTH(last_name)-3) AS Last_name FROM Employee;
-> select count(*) from Employee;
-> select SUM(salary) from Employee;
-> select MIN(salary),Max(salary) from Employee;select AVG(salary) from Employee;
-> select Employee.id, Employee.first_name, Department.dept_name FROM Employee INNER JOIN Department ON Employee.dept_id=Department.id;
-> select Employee.id, Employee.first_name, Department.dept_name FROM Employee LEFT JOIN Department ON Employee.dept_id=Department.id;
-> select Employee.id, Employee.first_name, Department.dept_name FROM Employee RIGHT JOIN Department ON Employee.dept_id=Department.id;
-> end @@
Query OK, 0 rows affected (0.10 sec)

mysql> call lab_1():@@
+-----+
| id | first_name | last_name | salary | joining_date | dept_id |
+-----+
| 457 | Tanvi | K | 95000.5 | 2018-09-15 | ECE |
+-----+
1 row in set (0.01 sec)

+-----+
| id | first_name | last_name | salary | joining_date | dept_id |
+-----+
| 452 | Saddam | Hussain | 45000.4 | 2017-06-15 | CS123 |
| 453 | John | John | 45000.4 | 2019-06-15 | CS123 |
| 454 | Akshay | Jalan | 45000.4 | 2011-09-15 | CS123 |
| 455 | Nishant | Wankhede | 45400.4 | 2019-09-05 | CS123 |
| 458 | Ayush | John | 45450.4 | 2019-09-15 | ME124 |
| 459 | Karthik | John | 45000.4 | 2019-09-15 | CS123 |
| 461 | Akshay | Wankhede | 45600.4 | 2011-09-15 | ECE |
+-----+
7 rows in set (0.01 sec)
```

Q9 IS ABOVE. Procedure