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### **ASSIGNMENT - 7**

**Table 1 : Employees** table to store employee details such as ID (PK), name, salary, and department ID (FK).

**Table 2: Departments** table to store department details including ID (PK) and name.

```
[mysql> create table Department(  
[    -> ID int,  
[    -> name varchar(50),  
[    -> primary key(ID)  
[    -> );  
Query OK, 0 rows affected (0.03 sec)
```

```
[mysql> desc Department;
```

Field	Type	Null	Key	Default	Extra
ID	int	NO	PRI	NULL	
name	varchar(50)	YES		NULL	

2 rows in set (0.00 sec)

```
ERROR 3734 (HY000): Failed to add the foreign key constraint. Missing column 'D_ID' for constraint 'employees_ibfk_1' in the referenced table '  
[mysql> create table Employees( ID int, name varchar(50), salary int, D_ID int, primary key(ID), foreign key(D_ID) references Department(ID));  
Query OK, 0 rows affected (0.01 sec)
```

```
[mysql> desc Employees;
```

Field	Type	Null	Key	Default	Extra
ID	int	NO	PRI	NULL	
name	varchar(50)	YES		NULL	
salary	int	YES		NULL	
D_ID	int	YES	MUL	NULL	

4 rows in set (0.00 sec)

**1. View: Design a view named employee info that displays the following columns: emp id, emp name, and emp salary.**

```
[mysql> create view employee_info as
[    -> select ID,name,salary
[    -> from employees;
Query OK, 0 rows affected (0.01 sec)

[mysql> select * from employee_info;
+-----+-----+-----+
| ID | name       | salary |
+-----+-----+-----+
| 1  | John Doe   | 50000  |
| 2  | Jane Smith | 60000  |
| 3  | Mike Johnson | 55000  |
| 4  | Emily Brown | 65000  |
| 5  | David Lee  | 70000  |
+-----+-----+-----+
5 rows in set (0.01 sec)
```

**2. Column Alias: Create a query to display the employee names under the alias employee name and salaries under the alias salary.**

```
[mysql> select name as 'employee_name',salary as 'employee_salary'
[    -> from employees;
+-----+-----+
| employee_name | employee_salary |
+-----+-----+
| John Doe      | 50000           |
| Jane Smith    | 60000           |
| Mike Johnson  | 55000           |
| Emily Brown   | 65000           |
| David Lee     | 70000           |
+-----+-----+
5 rows in set (0.00 sec)
```

**3. View with Joins: Create a view named employee\_dept that provides information about employees along with their respective department names by joining.**

```
ERROR 1054 (42S22): Unknown column 'e.emp_name' in 'field list'
[mysql> create view employee_dept as select e.name as 'emp_name',e.salary,d.name from employees e join departments d on d.ID = e.D_ID;
Query OK, 0 rows affected (0.00 sec)

[mysql> select * from employee_dept;
+-----+-----+-----+
| emp_name | salary | name  |
+-----+-----+-----+
| John Doe | 50000  | HR    |
| Emily Brown | 65000  | HR    |
| Jane Smith | 60000  | Finance |
| Mike Johnson | 55000  | IT     |
| David Lee | 70000  | Marketing |
+-----+-----+-----+
5 rows in set (0.00 sec)
```

**4. Column Alias in a View: Create a view named employee salary that displays employee IDs, names, and their salaries. However, the salary column should be displayed with the alias salary.**

```
[mysql> create view employee_salary as
[    -> select name,ID,salary as 'emp_salary
[    -> from employees;
Query OK, 0 rows affected (0.04 sec)

[mysql> select * from employee_salary;
+-----+-----+-----+
| name          | ID | emp_salary |
+-----+-----+-----+
| John Doe      | 1  | 50000      |
| Jane Smith    | 2  | 60000      |
| Mike Johnson  | 3  | 55000      |
| Emily Brown   | 4  | 65000      |
| David Lee     | 5  | 70000      |
+-----+-----+-----+
5 rows in set (0.01 sec)
```

**5. Create User:** Create a new user, named new user, in the database system, named new database, with access from the localhost and set the password to password.

```
[mysql> create user 'new_user'@'localhost' identified by 'password';
Query OK, 0 rows affected (0.03 sec)

[mysql> list users;
ERROR 1064 (42000): You have an error in your SQL syntax; check the
[mysql> show users;
ERROR 1064 (42000): You have an error in your SQL syntax; check the
[mysql> select user from mysql.user;
+-----+
| user          |
+-----+
| mysql.infoschema
| mysql.session
| mysql.sys
| new_user
| root
| s077
+-----+
6 rows in set (0.01 sec)
```

**6. Grant Multiple Privileges:** Grant multiple privileges to a user named new user for a specific table within the database name database. The user should be able to perform SELECT, INSERT, and UPDATE operations on this table.

```
[mysql> grant select,insert,update  
[    -> on emp.Employees to 'new_user'@'localhost';  
Query OK, 0 rows affected (0.01 sec)
```

**7. Revoking a Privilege: Revoke privilege to insert records into the table by new user.**

```
[mysql> revoke insert on emp.Employees  
[    -> from 'new_user'@'localhost';  
Query OK, 0 rows affected (0.01 sec)
```

**8. Create User with all Access: Create a database user named all user with all operations on all tables within the database name database.**

```
[mysql> CREATE USER 'all_user'@'localhost' IDENTIFIED BY 'password';  
Query OK, 0 rows affected (0.01 sec)  
  
[mysql> GRANT ALL PRIVILEGES ON emp.* TO 'all_user'@'localhost';  
Query OK, 0 rows affected (0.00 sec)
```

**9. Revoking All Privileges: Revoke all privileges to a user named user on the database name. Write an SQL statement to revoke all privileges from this user.**

```
mysql> REVOKE ALL PRIVILEGES, GRANT OPTION FROM 'all_user'@'localhost';  
Query OK, 0 rows affected (0.01 sec)
```