



MANAGING VIEWS

```
CREATE VIEW simple_view  
AS SELECT name, age FROM employees;  
  
Create a view that consists of name and age columns from the employees table.
```

```
CREATE VIEW active_emp  
AS SELECT name, age FROM employees  
WHERE status = 'active';  
WITH CASCADED CHECK OPTION;  
  
Create a view that shows active employees only and use the CASCDED CHECK OPTION.
```

```
CREATE RECURSIVE VIEW example_view  
AS  
SELECT 1  
UNION ALL  
FROM example_view WHERE n < 10;  
  
Create a recursive view that generates numbers from 1 to 9.
```

```
CREATE TEMPORARY VIEW temp_view  
AS  
SELECT 1  
FROM exammple_view WHERE n < 10;  
  
Create a temporary view.
```

```
DROP VIEW simple_view;  
  
Delete the simple_view.
```

MANAGING INDEXES

```
CREATE INDEX idx_name  
ON employees (last_name)  
  
Create an index on the last_name column of the employees table.
```

```
CREATE UNIQUE INDEX unique_email  
on users (email)  
  
Create a unique index on the email column of the users table.
```

```
DROP INDEX idx_name ON  
employees.
```

SQL AGGREGATE FUNCTIONS

```
AVG returns the average:  
SELECT AVG(salary) FROM employees;
```

```
COUNT returns the count:  
SELECT COUNT(*) FROM orders;
```

```
SUM returns the total:
```

```
SELECT SUM(amount) FROM sales;
```

```
MAX returns the maximum value:  
SELECT MAX(price) FROM products;
```

```
MIN returns the minimum value:  
SELECT MIN(stock) FROM inventory;
```

ROLES AND PERMISSIONS (MySQL)

CREATING USERS

```
CREATE USER 'alice'@'localhost'  
IDENTIFIED BY 'password123';
```

Create a new user 'alice' with a password "password123" that can connect from localhost.

CREATING ROLES

```
CREATE ROLE manager;  
Create a new role called manager.
```

ASSIGNING ROLES AND GRANTING PERMISSIONS

GRANT SELECT, INSERT

```
ON company_db.* TO 'company_db.*' TO 'alice'@localhost;  
Grant SELECT and INSERT privileges on all tables in company_db to the user alice connecting from localhost.
```

GRANT manager TO bob@localhost;

Assign the manager role to the user bob connecting from localhost.

REVOKING ROLES AND PERMISSIONS

```
REVOKE SELECT, INSERT ON company_db.*  
FROM 'alice'@localhost; ronnecting from localhost;  
REVOKE manager FROM 'bob'@localhost;
```

REVOKE manager role from the user bob

DROPPING ROLES

```
DROP ROLE manager;  
Delete the manager role.
```