Views

Views

A view, like a table, is a database object. They are logical representations of existing tables or of another view. You can add SQL statements and functions to a view and present the data as if the data were coming from one single table.

Creating View

Views are created using the CREATE VIEW statement. Views can be created from a single table, multiple tables or another view.

Syntax:

CREATE VIEW view_name AS SELECT column1, column2, ... FROM table_name WHERE condition;

Example:

Create a view to print names of all movies in capital letters. CREATE VIEW Movies_upper(title) AS SELECT UPPER(movie_title) FROM Movies)

UPDATE VIEW

A view can be updated with the CREATE OR REPLACE VIEW statement.

Syntax:

CREATE OR REPLACE VIEW view_name AS SELECT column1, column2, ... FROM table_name WHERE condition;

DROP VIEW

A view is deleted with the DROP VIEW statement.

Syntax: DROP VIEW view_name;

Keys

Primary Key

A PRIMARY KEY constraint is a rule that the values in one column or a combination of columns must uniquely identify each row in a table.

No primary-key value can appear in more than one row in the table.

No column that is part of the primary key can contain a null.

A table can have only one primary key.

Example:

```
CREATE TABLE Persons (
ID int NOT NULL,
FirstName varchar(255),
Age int,
PRIMARY KEY (ID)
```

);

FOREIGN KEY (REFERENTIAL INTEGRITY) Constraints

FOREIGN KEY constraints are also called "referential integrity" constraints. Foreign Key constraints designate a column or combination of columns as a foreign key. A foreign key links back to the primary key (or a unique key) in another table, and this link is the basis of the relationship between tables.

DEPARTMENT ID	DEPT_NAME	MANAGER_ID	LOCATION_ID
90	Executive	100	1700
110	Accounting	205	1700
190	Contracting	-	1700

DEPARTMENTS - Parent

EMPLOYEE - Child

EMPLOYEE_ID	FIRST_NAME	LAST_NAME	DEPARTMENT_ID
100	Steven	King	90
101	Neena	Kochhar	90
102	Lex	De Haan	90
205	Shelley	Higgins	110
206	William	Gietz	110

In the tables shown, the primary-key of the DEPARTMENTS table, department_id, also appears in the EMPLOYEES table as a foreign-key column.