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.

DEPARTMENTS - Parent

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

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.