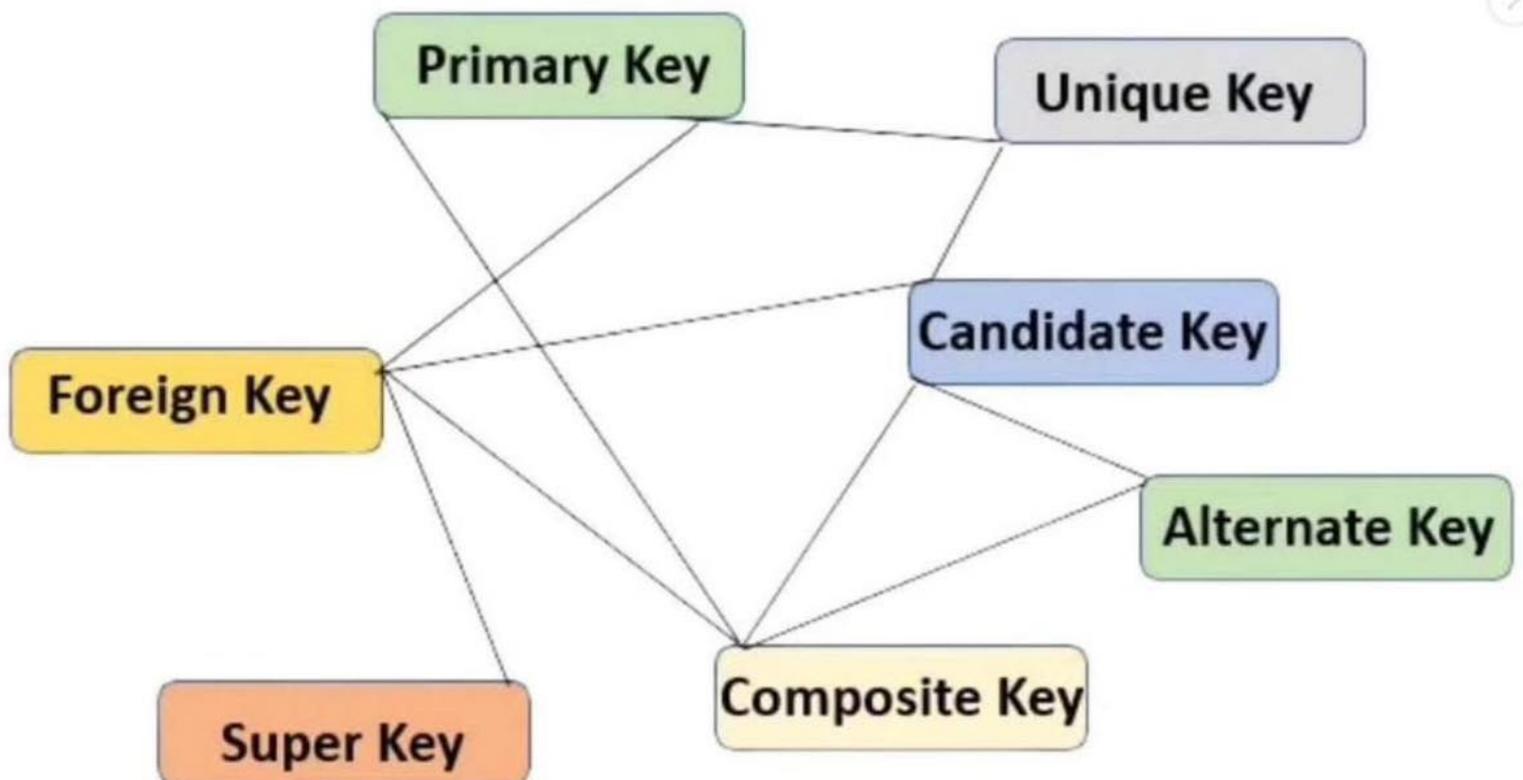
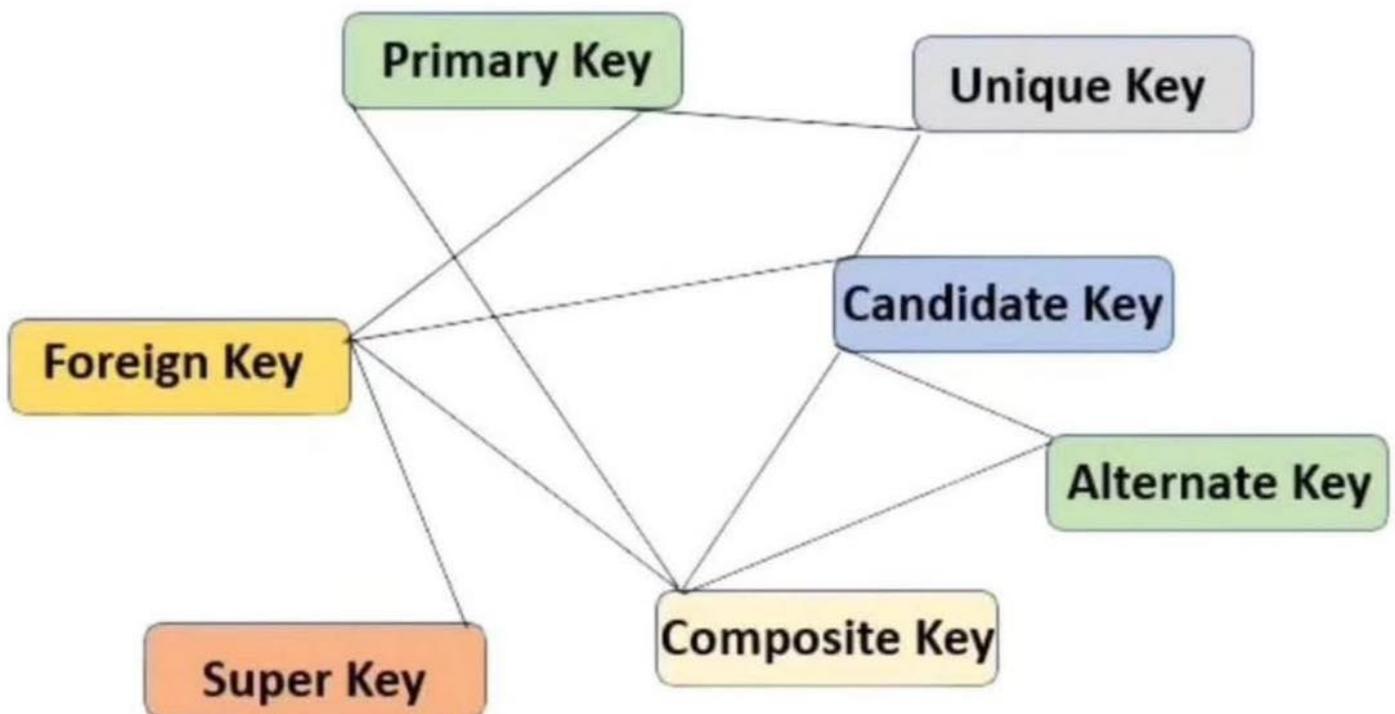


Keys In SQL



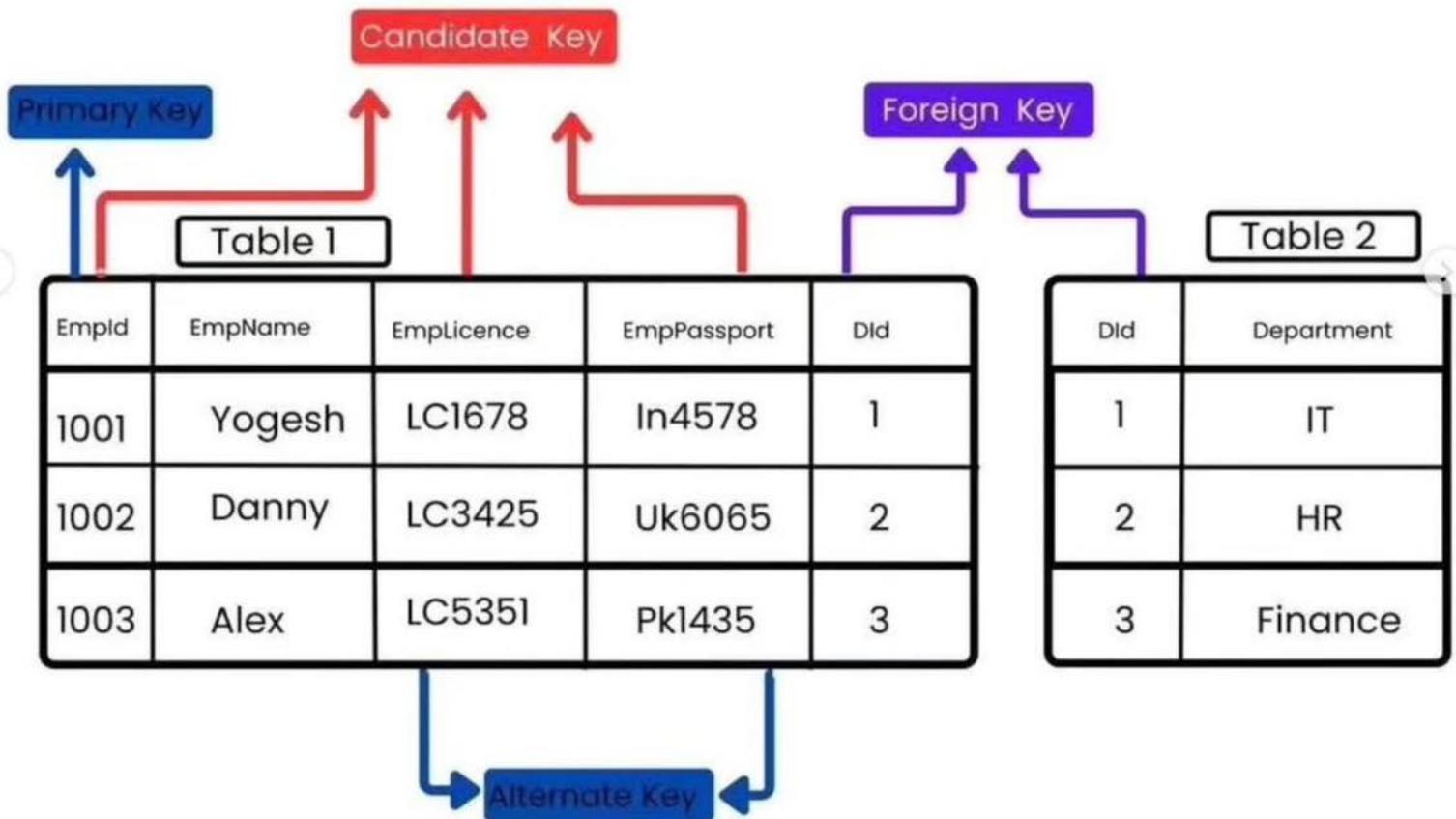
What is a KEY in SQL?

A key in SQL is an attribute or a set of attributes which helps you uniquely identify a record or a row of data in a relation/table.



Types Of Keys:

We are going to see five common types of keys available in SQL.



Primary Key:

A primary key is a table attribute or column that identify every record present in a table uniquely.

There can be only one primary key attribute in a table and primary key column element can; be same or has Null value.

EmpId	EmpName	EmpLicence	EmpPassport	Did
1001	Yogesh	LC1678	In4578	1
1002	Danny	LC3425	Uk6065	2
1003	Alex	LC5351	Pk1435	3

In the above table, EmpId is the primary key.

Super Key:

It is the set of columns that helps to identify rows in a table uniquely.

Super Key

The diagram shows a table with five columns. A horizontal line with four downward-pointing arrows is positioned above the first four columns, labeled "Super Key". The arrows point to the columns: EmpId, EmpName, EmpLicence, and EmpPassport. The fifth column, DId, is not included in the Super Key.

EmpId	EmpName	EmpLicence	EmpPassport	DId
1001	Yogesh	LC1678	In4578	1
1002	Danny	LC3425	Uk6065	2
1003	Alex	LC5351	PK1435	3

Candidate Key:

A candidate key is a column or a set of columns the can qualify as a primary key in the database.

There can be multiple candidate keys in a table and only one candidate key can qualify as the primary key.

The candidate key other than the primary key is called an Alternate Key.

The diagram illustrates a table with four columns: EmpId, EmpName, EmpLicence, and EmpPassport. The data rows are as follows:

EmpId	EmpName	EmpLicence	EmpPassport
1001	Yogesh	LC1678	In4578
1002	Danny	LC3425	Uk6065
1003	Alex	LC5351	Pk1435

Annotations in the diagram:

- An arrow labeled "Candidate Key" points to the EmpId column.
- An arrow labeled "Candidate Key" points to the EmpLicence column.
- A bracket labeled "Candidate Key" spans both the EmpId and EmpLicence columns, indicating they together form a candidate key.

Composite Key:

It is a set of two or more attributes that helps to identify each tuple in a table uniquely.

Any key such as super, primary, or candidate key can be called a composite key if it has more than one attribute.

Composite Key



EmpId	EmpName	City	EmpPassport
1001	Yogesh	Mumbai	In4578
1002	Danny	Noida	Uk6065
1003	Alex	Pune	Pk1435

Foreign Key:

A foreign key is a key used to link two tables together. It is sometimes also called as referencing key.

Foreign Key

Table 1

EmpId	EmpName	City	DId
1001	Yogesh	Mumbai	1
1002	Danny	Noida	2
1003	Alex	Pune	3

Table 2

DId	Department
1	IT
2	HR
3	Finance