

Different types of keys in SQL

➤ **Super Key:** It is a combination of all possible attributes that can uniquely identify a row / record in a table. It can include more details than necessary for a primary key. Super key is a super set to candidate key.

Eg. {Roll no, Name, email_id, Gender, aadhar_number}

➤ **5) Candidate Key:** A candidate key is a minimal super key or a super key with no redundant attributes. Candidate Keys are potential options for Primary Keys. They share the properties of uniqueness and minimal redundancy.

Eg. 1. Roll no 2. email_id 3. aadhar_number

➤ **Primary Key:** A primary key is one of the candidate key chosen by the DBA to uniquely identify each record in a table. It ensures data uniqueness and serves as a reference for establishing relationships. It is unique and Not Null

Eg. 1. Roll no

➤ **Alternate Key:** Out of all the candidate keys one key is selected as primary key and the remaining are alternate keys. An Alternate Key is a candidate key that isn't chosen as the Primary Key. It provides additional options for uniquely identifying records.

Eg: 1. email_id 2. aadhar_number

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➤ **Composite Key:** A Composite Key uses multiple columns to create a unique identifier. It's useful when a single column cannot ensure uniqueness.

Eg: roll no and subject

➤ **Unique Key:** Like a Primary Key, a Unique Key enforces uniqueness but allows null values. It's used for columns that must be unique but might contain missing information.

➤ **Foreign Key:** A Foreign Key establishes a link between two tables based on a standard column. It maintains referential integrity and enforces relationships between tables.

