

# **DATA MODELING AND DESIGN**

## **Primary Key and Secondary Key**

## Primary Key

- A primary key is used to ensure data in the specific column is unique.
- It uniquely identifies a record in the relational database table.
- Only one primary key is allowed in a table in a table.
- It is a combination of UNIQUE and Not Null constraints.
- It does not allow NULL values cannot be deleted from the parent table.
- Its constraint can be implicitly defined on the temporary tables.
- Examples of primary keys include: **Unique last name, Social security number, online username.**

## Secondary Key

- A secondary key provides a secondary reference point for objects whose primary keys do not adequately distinguish them for reference purposes.
- It is used for identification of rows but not usually unique.
- We can have multiple secondary key per table.
- In the event that a primary key is not enough to distinguish an object, a secondary key can be used to render that object unique.
- Attributes used for Secondary Key are not the ones used for Super key i.e secondary Key is not even be one of the Super key.
- Examples of secondary keys include: **Street address number, Phone number, Middle name etc**

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## Difference Between Primary Key And Secondary Key In Tabular Form

BASIS OF COMPARISON	PRIMARY KEY	SECONDARY KEY
<b>Description</b>	The attribute that uniquely identifies a row or record in a relation is known as Primary key.	A field or combination of fields that is basis for retrieval is known as secondary key (mainly used for finding details from large data).
<b>Use</b>	It uniquely identifies a record in the relational database table.	It is used for identification of rows but not usually unique.
<b>NULL Values</b>	It does not allow NULL values cannot be deleted from the parent table.	Allows NULL values.
<b>Number Of Keys</b>	Only one primary key is allowed in a table in a table.	We can have multiple secondary key per table.
<b>Examples</b>	Examples of primary keys include: Unique last name, Social security number, Online username	Examples of secondary keys include: Street address number, Phone number, Middle name etc
<b>Deletion</b>	Cannot be deleted from the parent table.	Can be deleted from the parent table.

