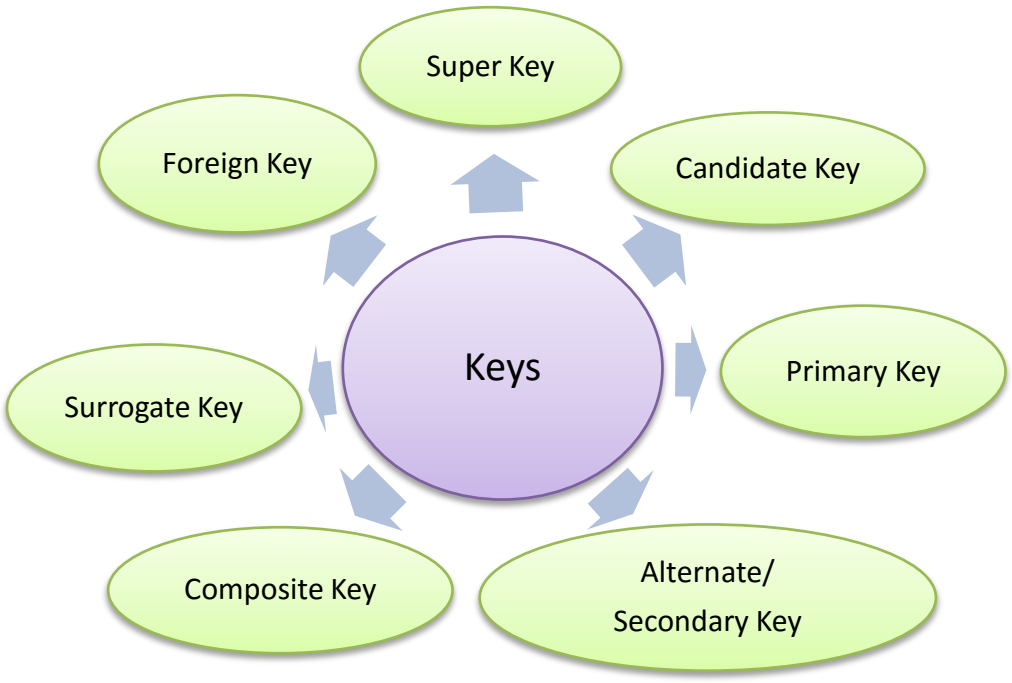
Course Name: **A Level (1st Sem)** Subject : **Introduction to DBMS**
Topic: **Keys in RDBMS (Part 1)** Date: **24-Mar-2020**

Keys in RDBMS

Keys in Relational data model play an important role. Keys help to identify records uniquely in a table/relation. It also used to establish relationships between tables.

"A key is an attribute or set of attributes in a table/relation which helps to identify a row/tuple or record uniquely."

There are following types of keys in RDBMS:



Super Key:

Super key is defined as attribute or set of attributes within a table that can identify each record uniquely within a table.

Super key is a superset of candidate key.

A super key may have additional attribute (s) that are not needed for unique identification.

Let us suppose following relation/table:

Table: employee_info

(emp_id, emp_name, emp_fname, emp_dob, emp_address, emp_city, emp_adhaar, emp_mobile, emp_email)

Super keys in above table are:

1. {emp_id},
2. {emp_id, emp_name},
3. {emp_id, emp_dob},
4. {emp_id,emp_city)
5. {emp_adhaar},
6. { emp_adhaar, emp_city, emp_dob}

   and many more …

Here, we can see that above attribute or set of attributes are super key because these are able to identify each record uniquely in a table.

The following attribute or set of attributes are **not super key** :

1. {emp_name}
2. {emp_name, emp_fname},
3. {emp_city, emp_dob},
4. {emp_dob, emp_fname}

   and many more …..

because:

In sr. no 1 two or more employees may have same name
In sr. no 2 two or more employees may have same name and father's name
In sr. no 3 two or more employees may have same dob and they may belong to same city
In sr. no 4 two or more employees may have same dob and father's name

Exercises:

1. Identify all possible super keys in following table:

Table: department

dept_id	dept_name	dept_location	dept_budget
101	IT	GF-20	500000
102	Electronics	GF-23	400000
103	Admin	FF-23	350000
104	Accounts	FF-24	250000

2.