Alternate key

→ one key is choosen as the primary key from the candidate keys and the remaining candidate key (if accessed) will be your alternate key.

e.g, licence no. and passport no.

Composite key

→ whenever a primary key consist of more than one attribute, it is called composite key.
also called concatenated key
combine

Artificial key

→ generated automatically by the S/w.

e.g, Raw id

DBMS :-

* Primary key

→ It is the 1st key used to identify one & only one instance of an entity (table) uniquely.

eg.

name	id	address
aa	1	Noida
bb	2	Delhi
cc	3	Bombay
dd	4	Goa.

Primary key = id

Candidate key

Set of attributes / columns that helps to uniquely identify a tuple (row).

Name	id	address	Passport no.	License no.
aa	1	~~Noida~~	100	1000
bb	2	Delhi	200	2000
cc	3	Bombay	300	3000
dd	4	Goa	400	4000

↓

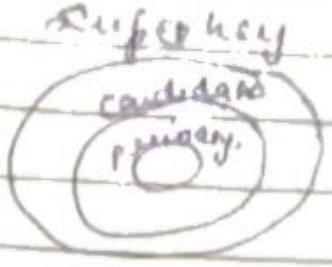
candidate key id

Passport no.

License no.

Super key

Super key → the attribute (s) that can uniquely identify a tuple.



Superkey (id), passport no., Licence no (name, licenceno), (name, id).

(superset)

name	id	address	Passport no.	Licence no.	superkey
aa	1	Noida	100	1000	CSE
bb	2	Delhi	200	2000	CSC
cc	3	Bombay	300	3000	civil
dd	4	Goa	400	4000	CSC

Foreign key → connect 2-table

→ Primary key for 2nd table

→ are the column of the table used to point to the primary key of another table.

Foreign key	d_id	d_name
1	1	CSE
1	2	civil
2		
1		

PL/SQL (PROCEDURAL EXTENSION LANGUAGE FOR SQL)

→ PL/SQL is not a stand-alone programming language. It is tool within the oracle programming.

PL/SQL BASIC SYNTAX

→ PL/SQL is a block structured language, meaning that PL/SQL programs are divided and written in logical blocks of code. Each block consists of three subparts.

1)- Declarations
- → This section starts with the keyword declare. It is an optional section and defines all variables, cursors, subprograms, and other elements to be used in the program.

2) Executable Commands:
- → This section is enclosed between the keywords BEGIN and END and it is mandatory section.
- → It consists of the executable PL/SQL statements of the program.
- → It should have one executable line.

3)- EXCEPTION HANDLING:
- → This section starts with the keyword EXCEPTION. This section is again optional and contains exceptions that handle errors in the program.

SYNTAX:
→ Every PL/SQL statement ends with a semicolon; PL/SQL blocks can be nested within other PL/SQL blocks using BEGIN and END. Here is the basic structure of PL/SQL block.

```
DECLARE
    < declarations section>
BEGIN
    < Executable command(s)>
EXCEPTION
    < Exception handling>
END;
```

Eg:
The 'Hello World'.

```
Declare
    message varchar (20) := 'Hello, World';
Begin
    dbms_output.put_line(message);
END;
/
```

NOTE: The END; line signals the end of PL/SQL block.

→ To run the code from SQL Command line. You may need to type / at the beginning of the first blank line after the last line of code.

→ After execution of above code: (output)

```
Hello World
PL/SQL procedure successfully completed
```