

★ Agenda :

- Candidate key
- Primary key
- Composite key
- foreign key
- SQL :

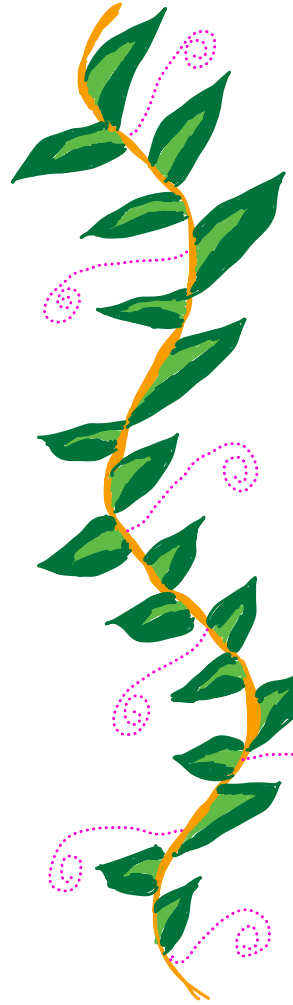
a) Create

b) Read

c) Update

d) Delete

} next session



\* Candidate key :-

Students

name	email	phone-no	psp	batch
Rahul	Rahule...	813	89	1
Naman	Namane..	032	91	1
Rahul	Rahule...	6501	98	2

	(SK)	(CK)
name	X	X
email	✓	✓
phone-no	✓	✓
(psp, batch)	X	X
(name, batch, psp)	X	X
(name, phone-no)	✓	X
(email, phone-no, name)	✓	X
(email, phone-no)	✓	X

# This is min<sup>m</sup> no. of fields/columns required to uniquely identify a row is called Candidate Key.  
 → If we remove more col<sup>m</sup> from a Candidate key then we can't uniquely identify a row.

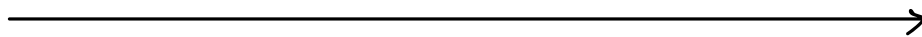
PS: CK is a subset of SK.



Scaler →

S_id	class_id	attendance
1	5	70 %
2	7	80 %
1	7	90 %

	SK	CK
S_id	X	X
class_id	X	X
attendance	X	X
(S_id, class_id)	✓	✓



Quiz 1 : Is a CK always a SK ? **Yes**

Quiz 2 : Is a SK always a CK ? **No**

Quiz 3 : Which is CK ?

	SK	CK
a) Emp-id , dep.	✓	X
b) Email	✓	✓
c) f_name , l_name	X	X
d) L_name , dep	X	X

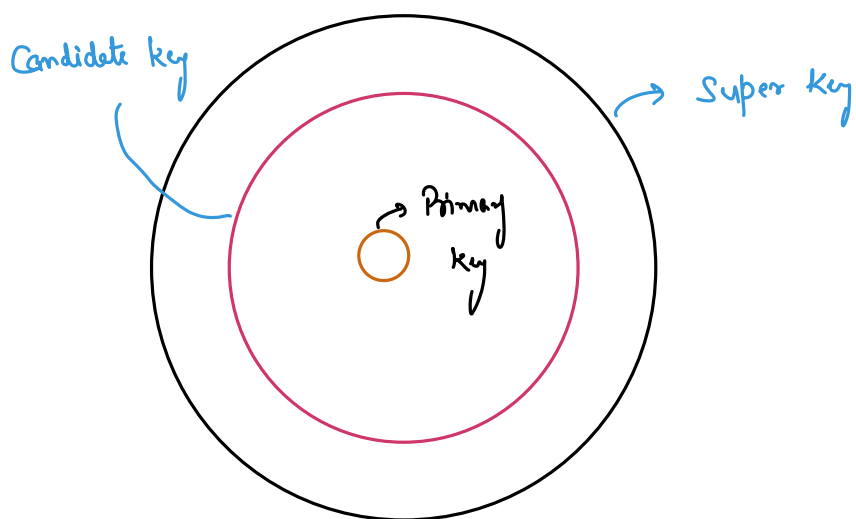
### Quiz 4 :

- |    |               |   |
|----|---------------|---|
| a) | Emp-id, Email | ✗ |
| b) | Emp-id        | ✓ |
| c) | Email         | ✓ |
| d) | Both B & C    | ✓ |

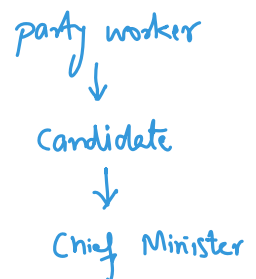
### Quiz 5 : Not CK

- |    |                |   |
|----|----------------|---|
| a) | Emp-id         | ✓ |
| b) | Email          | ✓ |
| c) | f_name, l_name | ✗ |
| d) | l_name, dep    | ✗ |

CK



### Political Party :



## Primary Key :

### Students

S-id	name	email	phone-no	psp	batch
1	Rahul	Rahul@...	813	89	1
2	Naman	Naman@...	032	91	1
3	Rahul	Rahul@...	6501	98	2

email → str

phone\_no. → int

# We choose a primary key from set/among CK.

### Internally :

- Data is sorted according to PK
- Indexing is also done on PK

# A Good Primary key should :

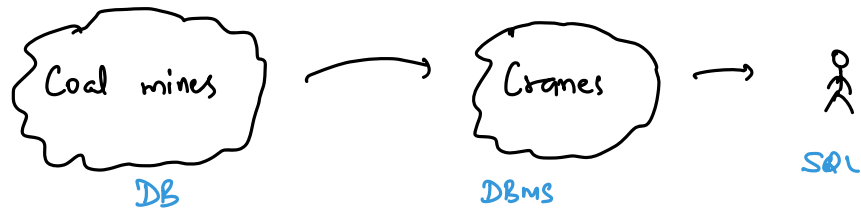
1. Be fast to sort on
2. Have smaller size
3. Ideally it shouldn't change



## Introduction to SQL :

SQL : Structured Query Language

→ RDBMS



C	create
R	read
U	update
D	delete

→

# Create

# SQL is case-insensitive (Rahul = RAHUL)

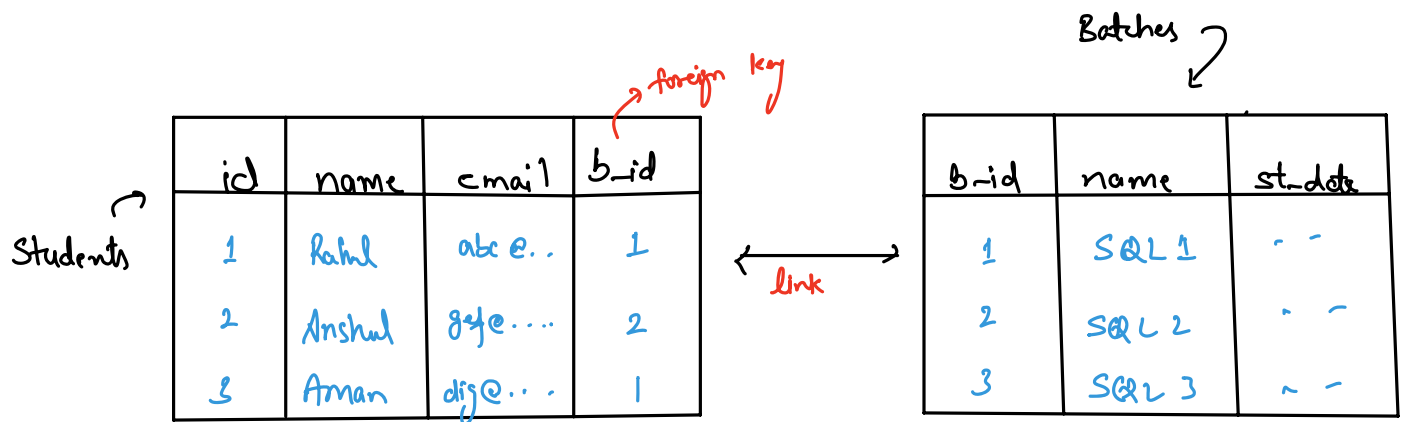
```
create table table_name (
    col-name    data-type    constraint
);
```

→

## Composite key:

↳ is a key with more than one column/field

## ★ foreign keys:



foreign key :

A foreign key is a column in a table that references a column in another table.

→ ON Delete , ON UPDATE

1 Cascade : Delete → Delete  
Update → Update

2. SET NULL : ON Delete or ON Update  
it will set data in students  
table to null

3. No action : By default MySQL takes no action.

4. Set Default :