Joins

Normalization

?

Customer _ order

cname	sphone	cemail	cpass	oid	odate	DelDate	price
abc	. .	. . .	. . .	1	21/12/22	28/12/22	500
pqr	. .	. . .	. .	2	20/92/22	26/17/22	1000
abc	. . .	-	.	3	21/12/22	27/12	800
pqr	—	. .	. .	4	27/12/12	27/12	1200
onc	<			5			
10	—						

storage   ?

add vs   lookups

Join >

Customers

cid/email   Orders

cid	name	email	address
1	abc	—	Pune
2	pqr	—	mumbai
3	xyz	—	Bunglore
4	lmn	—	Delhi
5	abc	.	

Cid	O.d	ODate	D Date	Price
2	1			
1	2			
3	3			
	4			
2	5			
4	6			

emp
e1 → Amit
e2 → Rahul
e3 → Nilesh
e4 → Nitin
e5 → Sorang

meeting
100 → Schedule
200 → AGM
300 → App Design

1 → ∞

100
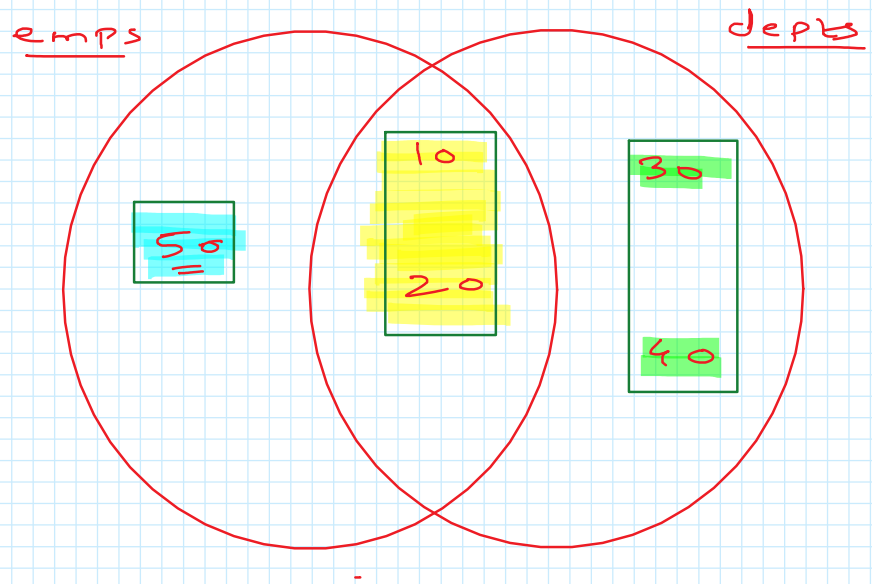e3, e4
?
2

200 → e5
e4
e1 e2 e3
?

300
e1 e2 e3

Association table
emp_meeting

empno	meetno
e3	100
e4	100
e1	200
e2	200
e3	200
e4	200
e5	200
e1	300
e2	300
e3	300

emps   depts

50

10

20

30

40

Inner Join

Left outer Join

Right outer Join

Full outer Join