Quiz

Select state,
department,
count(*)

From employee

Group by
state,
department

Order by
State DESC
Department

department	State	Position	Count
Sales	pa	2	2
Marketing	pa	1	1
eng	oh	3	3
eng	oh		
Sales	pa		
eng	oh		

Join

Person

Primary key

first	last	id	addressId
Andrew	M cG	1	7

Primary key

address

id	street	....
7	Saline	PA..

→ 7

:-7 xxx

↳ insert fails

Keys

Primary Keys

every table, and every row on a table MUST have a unique, not null primary key

Natural Keys — derived from the data directly
Surrogate Keys — arbitrary, assigned by database

Foreign Keys

a column on one table whose values are restricted to be entries of a column on another table, almost always the other table's Primary key

Keys help to enforce referential integrity

Cardinality

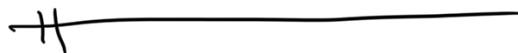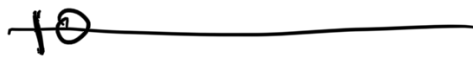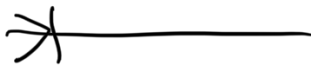maximum and minimum number of times two entities can be related /

one

many

one and only one

zero or one

one or many

zero or many