SQL Relationships Review

1 to 1 (columns are almost always on the same table)

One to Many relationship

- Same as Many to One
- The "Many" table has a foreign key that points to the primary key on the "One" column

Many to Many relationship

- Many-to-Many needs a joiner table to establish the relationship
- No direct keys in common between the 2 tables

Questions that help us determine relationships

- Does A have only one possible B. Does B have only one possible A?   1:1
- Can A have many B? And does B belong to one and only one A?   1:Many
- Can one A have many B? Can one B have many A?   Many:Many

Consider the following relationships

_____ A TX driver to a TX Driver's License Number?

_____ Username to password?

_____ Car make to car model?

_____ Tweet to Author?

_____ Vehicle to Citation?

_____ An individual person to ID documents?

_____ Customer to Order (think eBay or Amazon)

_____ High School Principle to Student (assuming students remain at the same H.S.)

_____ Life Insurance Policy to Insured Individual

_____ Actor to Movie?

_____ Patient to Doctor?

_____ Blog Post to Category?

_____ Person to Bank Account?

_____ Plane to Passenger?

_____ Book to Author?

_____ Toppings to Pizza?

Consider the following tables and their structure

Users

id	username	password
1	bobbobberson	no passwords in plain text, ever!
2	janejaneway	always hash your passwords

User_Details

id	user_id	email_type	email
1	1	home	bob@heavymetalmania.com
2	1	work	bobbobberson@seriouscompany.com
3	2	home	jane.janeway@gmail.com
4	2	work	jane@codeup.com
5	2	promotional	jj1979@yahoo.com

Authentication Log

id	user_id	login_attempt	timestamp
1	1	failed	2021-07-06 17:11:38
2	1	failed	2021-07-06 17:11:39
3	1	failed	2021-07-06 17:11:39
4	2	success	2021-07-07 12:11:44

Proficiencies

id	name
1	SQL
2	Python
3	Julia

User_Proficiency

id	user_id	proficiency_id
1	1	1
2	1	2
3	2	1
4	2	2
5	2	3