many - to - many

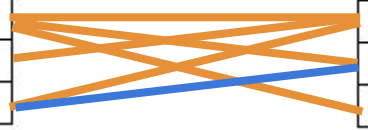
When **many** actors *and* **many** movies exist, things get complicated. We can still draw **lines** to represent this many-to-many relationship...

actors

id	name
1	Orlando Bloom
2	Johnny Depp
3	Natalie Portman

movies

id	title
1	Pirates of the Carribean
2	New York, I Love You
3	Lord of the Rings



...but adding one column to a table won't be enough to represent this mess of lines. We need a whole **new table** where each row will represent one **line**.

castings (join table)

id	actor_id	movie_id
1	1	1
2	2	1
3	3	1
4	1	2
5	3	2
6	1	3

If at some point we want to interact with the data from both tables, we can use our join table as a base for the other two tables to connect on.

```
JOIN movies ON castings.movie_id = movies.id
JOIN actors ON castings.actor_id = actors.id
```

which, behind the scenes, might look like this:

castings (join table)

id	actors.name	movies.title
1	Orlando Bloom	Pirates of the Carribean
2	Johnny Depp	Pirates of the Carribean
3	Natalie Portman	Pirates of the Carribean
4	Orlando Bloom	New York, I Love You
5	Natalie Portman	New York, I Love You
6	Orlando Bloom	Lord of the Rings

(the id columns would technically be part of the joined table too)