

Modelling Many-to-Many Relationships

Databases Three

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Many-to-many



Many-to-many



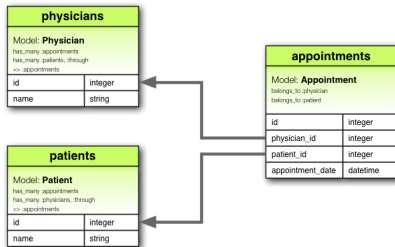
The **Bar_Foo** table holds foreign keys to **Bar** and **Foo**.

Intermediate object or not?

Do we need an intermediate object or just a join table?

- Use an intermediate object when there is additional data besides the joining relationship.
- Use a join table without an intermediate object when there is no additional data carried with the relationship.

Intermediate object example



```
class Physician < ActiveRecord::Base
  has_many :appointments
  has_many :patients, :through => :appointments
end

class Appointment < ActiveRecord::Base
  belongs_to :physician
  belongs_to :patient
end

class Patient < ActiveRecord::Base
  has_many :appointments
  has_many :physicians, :through => :appointments
end
```

Source: Rails Guides,

http://guides.rubyonrails.org/association_basics.html

has_and_belongs_to_many

If we only need a join table, we can indicate the many-to-many relationship in the models with `has_and_belongs_to_many`.

```
class Student < ActiveRecord::Base
  has_and_belongs_to_many :classes
end
```

```
class Class < ActiveRecord::Base
  has_and_belongs_to_many :students
end
```

Today's Lab

In today's lab, we want to model following, i.e., a user may follow and be followed by other users. A user who follows another will see the followed user's splatts in her feed.

- We need a self join, **and**
- we need a many-to-many.

This is a little more complicated than the examples we just considered, *but it's still not that hard*.