

Modeling Challenges

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Full example code at
<http://tinyurl.com/dj-models>

Two sample problems

Dates and Date Ranges

Museum data collection

- 01/08/1891 - 31/08/1891
 - 01/11/1937
 - 0 AD - 199
- etc...

103 - 1995

$$1070 - 945$$

What do we know?

- Point in time
- Some kind of precision
 - ✓ Year only?
 - ✓ Decade?
 - ✓ Century?
- Zero point

Not all of these will be
covered today

```
class Date(models.Model):
    """
    Dates with precision measurements.
    """
    date = models.DateField()
    precision = models.IntegerField(default=0,
                                    choices=...)

    def __unicode__(self):
        ....

    def canonical_date(self):
        ...
```

Sports Teams

Lots of “actors”

- Players
- Coaches
- Umpires
- Teams
- Leagues

Wrinkles

- People move between teams
- People move between roles
 - ✓ Player -> coach
- Teams move between leagues

But wait! There's more...

- Players & coaches belong to teams
- Umpires belong to leagues

Similarities

- Engagements all have start date
- Optionally, an end date
- “Current things” are where end date is None
- Lots of similarities in string presentation

Tricks & Traps

- (Please) don't fall in love with
ManyToManyField(through =)
 - ✓ Has uses, but not always easiest to read

Tricks & Traps

- Abstract base classes are useful in these “almost the same” situations

Tricks & Traps

- Admin can be fiddly
- Admin can be customized (remember!)
 - ✓ Template customisation
 - ✓ Method overriding

Code tour...