Object-Relational Mapping (ORM)

About me

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Current Job: VP Software Engineering for Building Energy

I've been using Python ORMs to deliver customer facing web applications since 2011.

Agenda

- Overview of ORM
- Exercise 1: get setup
- Modeling Data and Making Queries
- Exercise 2: making queries
- Relations
- Exercise 3: following relations
- Aggregations
- Exercise 4: aggregations and group by

Breaks

On the hour, please remind me.

Shameless reminder to myself: 1PM I need to fill the meter.

Class Material

Goto to Github and find the hack-university-orm repository

https://github.com/hackoregon/hack-university-orm

Follow along in class_notes.md

Overview

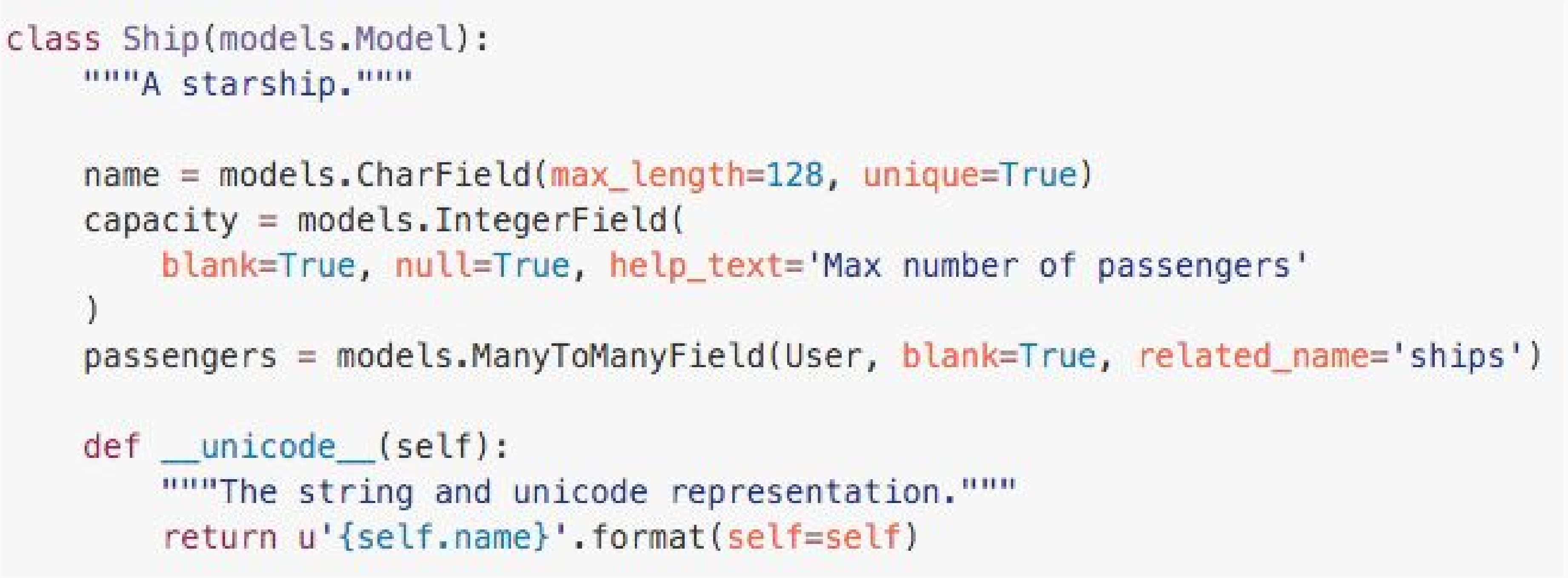
Motivation

Advantages & Disadvantages

Exercise 1

Modeling Data

A starship



```python
class Ship(models.Model):
    """A starship."""

    name = models.CharField(max_length=128, unique=True)
    capacity = models.IntegerField(
        blank=True, null=True, help_text='Max number of passengers'
    )
    passengers = models.ManyToManyField(User, blank=True, related_name='ships')

    def __unicode__(self):
        """The string and unicode representation."""
        return u'{self.name}'.format(self=self)
```

Querying Data

Exercise 2

Relations

Exercise 3

Aggregations

Exercise 4

Questions? Comments?