

# Ember Data and JSON API

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# What is Ember Data?

# The "M" in MVC

*Framework for managing your models and relationships*

## Separate project

- Different repository
- Can use Ember.js without Ember Data

# Four main components

Models

Store

Adapter

Serializer

# Specifying a model

```
App.Post = DS.Model.extend({  
  /* Attributes */  
  title: DS.attr('string'),  
  body: DS.attr('string'),  
  nrViews: DS.attr('number'),  
  createdAt: DS.attr('date'),  
  isPublished: DS.attr('boolean'),  
  /* Relationships */  
  author: DS.belongsTo('user'),  
  comments: DS.hasMany('comment'),  
  /* Properties */  
  hasComments: function() {  
    return this.get('comments.length') > 0;  
  }.property('comments.length')  
});
```

# The store

- Contains all instances of models
- Is a singleton

## Create and destroy instances

- `store.createRecord`
- `store.deleteRecord`



## Query records

- `store.find('post', 1)`
- `store.find('post')`
- `store.find('post', { isPublished: true })`

# The adapter

Mediates between store and persistence layer

## Write your own

- FixtureAdapter
- RESTAdapter
- LocalStorageAdapter?

# Example RESTAdapter

**Store** find( 'post' )



**RESTAdapter** findAll( 'post' )



GET /posts

Store find('post', 1)



RESTAdapter find('post', 1)



GET /posts/1

**Store** find('post', { isPublished: true })

↓

**RESTAdapter** findQuery('post', { isPublished: true })

↓

GET /posts?is\_published=true

**Store** createRecord( 'post' )



**RESTAdapter** createRecord( 'post' )



POST /posts



# The serializer

Serializes and normalizes data in a form expected by Ember Data

Used by adapter

**When sending to server** `serialize`

**When receiving from server** `normalize`

# Legacy API?

JSON structure: custom serializers

URLs: custom adapters

# JSON API

Specification to standardize representation of resources in JSON

Driven by Yehuda Katz and Steve Klabnik

[jsonapi.org](https://jsonapi.org)

## Various implementations

- **Ember Data** `RESTAdapter/RESTSerializer`
- **Rails** `ActiveModel::Serializers`
- **Python** `SQLAlchemy-JSONAPI`

# Status of Ember Data

Right now v1.0.0-beta.9

Production release date not yet known

*Ember Data is still under active development and is currently beta quality. That being said, the API has largely stabilized and many companies are using it in production.*

Thank you

