



Introduction to Backbone.js

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Goals



An Immediate Digression on Javascript







Backbone.js



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Structure



Model

```
var Task = Backbone.Model.extend({  
  defaults: {  
    'complete': false  
  }  
});
```



Model

```
var task = new Task({  
  description: "Set up lightning rod on  
  top of laboratory"  
});  
task.get("description");
```

```
> "set up lightning rod on top of  
laboratory"
```



Collection

```
var Tasks = Backbone.Collection.extend({  
  model: Todo.models.Task,  
  url: "tasks"  
});
```



Collection

```
var tasks = new Tasks();  
tasks.create(  
{  
  description: "Dig up some brains at the  
  cemetery"  
});
```



Pick and Choose



Router

```
var TodoRouter = new
Backbone.Router.extend({
  initialize: function(options) {
    this.tasks = new Tasks(options.tasks)
    this.tasksView = new
    TasksView({collection: this.tasks});
  },
  ...
});
```



Router

...

```
routes: {  
  "": "loadTasks",  
  "tasks/:id/edit": "editTask"  
},
```



Router

...

```
editTask: function(id) {  
    var view = new TaskEditView({id: id,  
    collection: this.tasks});  
    view.render();  
}  
});
```




Router

```
Todo.router = new TodoRouter(options);  
Backbone.history.start();
```



Router



www.drfrankenstein.com/todo#tasks/34/edit



So...





What about the DOM?





View

**“...more convention than they
are code”**



View

```
var TasksView = Backbone.View.extend({  
  tagName: 'div',  
  className: 'task-list',  
  
  ...  
});
```




View

```
events: {  
  'keyup #new-task' : 'createOnEnter'  
},
```



View

```
createOnEnter : function (event) {  
  ...  
  this.collection.create({ description:  
    inputValue });  
  ...  
},
```



View

```
render : function () {  
  this.collection.each(this.addTask);  
  return this;  
},
```



View

```
addTask: function (task) {  
  var view = new  
    Todo.views.TaskView({ model: task });  
  var taskEl = view.render().el;  
  $( '.tasks' ).prepend(taskEl);  
},
```



Summary







Homework

Enhance this todo app:

<https://github.com/mjansen401/todo>

- Complete tasks
- Remove tasks
- Add due date
- Clear completed tasks