

# Backbone Js Training

## Course Contents

### Introduction

#### Concepts: Model-View-Controller

- What is Model-View-Controller?
- How does Backbone.js fit into this model?
- What about the back-end?

#### Basic Backbone

- A very simple model
- Retrieving our simple model
- Saving our simple model

#### Event handling

- Capturing events
- Abandoning events
- Triggering events

#### The model in depth

- Building a Model with extend()
- Getters and setters
- Constructors and defaults
- Managing changes
- Validation

#### Collections: Multiple models

- Overview of the collections API
- Creating your own Collection
- Adding and removing elements
- Comparing and sorting elements
- Filtering collections

- Data manipulation as a batch operation

### **Manipulating collections with Underscore.js**

- Iteration functions (forEach, map, filter)
- Accessors: last, first
- Searching: contains/include, etc
- Aggregation functions: max, min, etc.

### **Display information with Views**

- Display a Model
- Display a Collection
- Display Aggregated (Reduced) Data

### **Backbone.sync: How to talk to a server**

- The RESTful model of CRUD interaction
- Standard syncing over REST
- Alternatives for non-RESTful applications

### **Update server-side data with forms**

- Display forms
- Perform client-side form validation
- Submit a form to update an object

### **Change views with a router**

- Start on a main route
- Create links to display different views
- Animate changes
- Tracking History

### **Advanced topics and techniques**

- Create an automatically updating view
- Extracting common code to libraries

## **Improve Performance**

- Preparations
- Update data with a changes feed
- Make requests over a websocket
- Organize with Pagination

## **Conclusion**