

■ Meteor – Module 2

INF1802

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Outline – Module 2

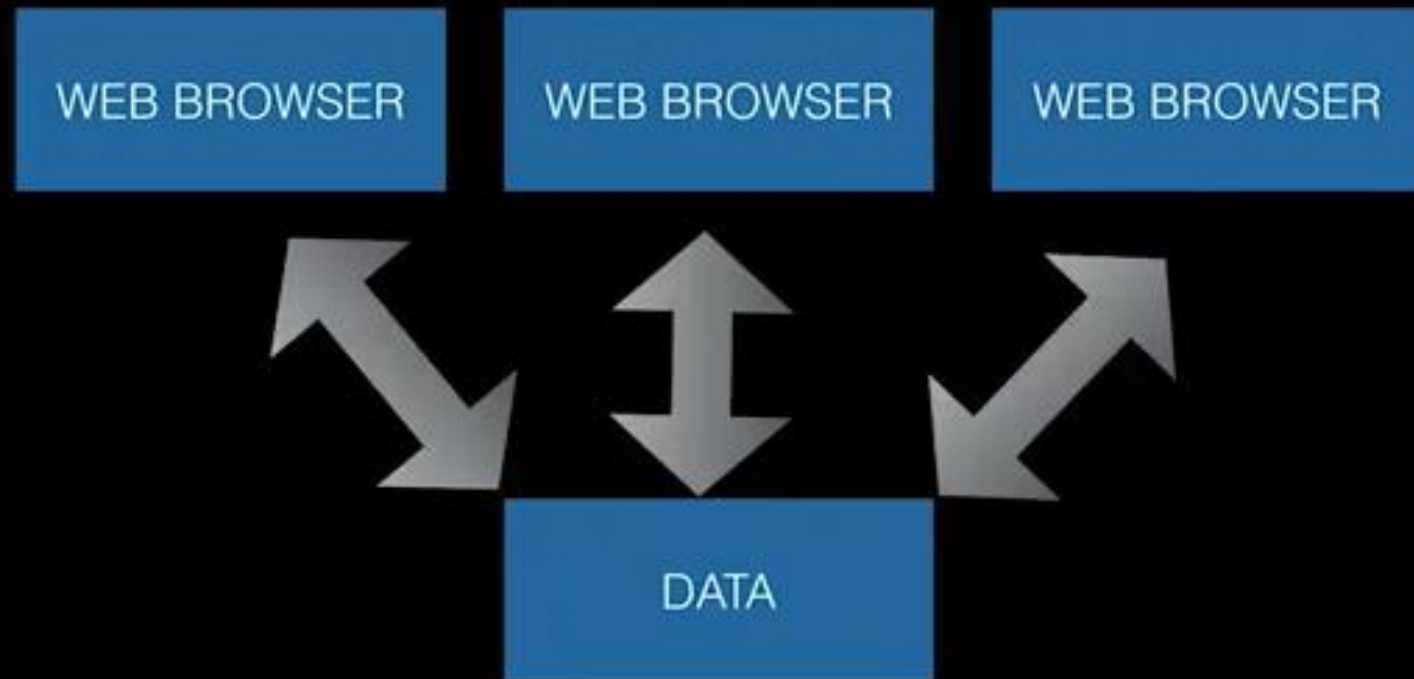
- Meteor Distributed Data Model, mongoDB
- Creating a Collection
- Adding items in a Collection
- Removing items
- Adding items using a Form
- Sorting
- Layout and Navigation
- View item details
- Editing an item

Reference

- Meteor
 - <https://www.meteor.com/>
 - <http://guide.meteor.com/>
- Discover Meteor. Tom Coleman, Sacha Greif.
 - <http://pt.discovermeteor.com/pdf>
- Coursera Responsive Website Development and Design Specialization, Dr Matthew Yee-King, University of London, 2016.
 - Course Introduction to Meteor.js Development
<https://www.coursera.org/learn/meteor-development/home/welcome>
 - Web Application Development with JavaScript and MongoDB
<https://www.coursera.org/learn/web-application-development/home/welcome>

1 – Meteor Distributed Data Model

Why a server?



WEB
BROWSER

SERVER

CENTRAL
DATA

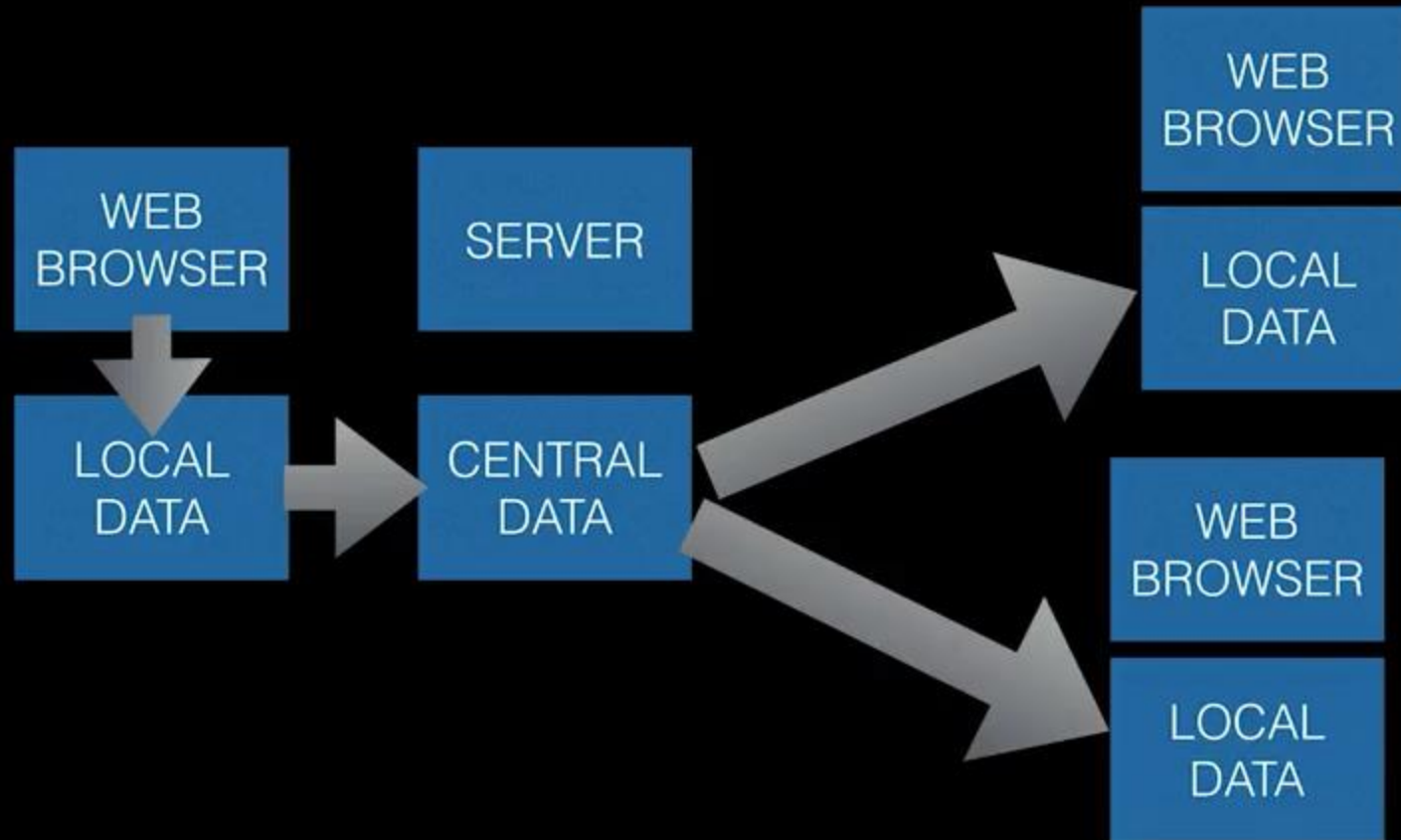


WEB
BROWSER

SERVER

LOCAL
DATA

CENTRAL
DATA



Meteor uses data on the wire, meaning the server sends data, not HTML, and the client renders it.

2 – Creating a Collection and Adding Items

3 – Removing items from a collection

Create your application

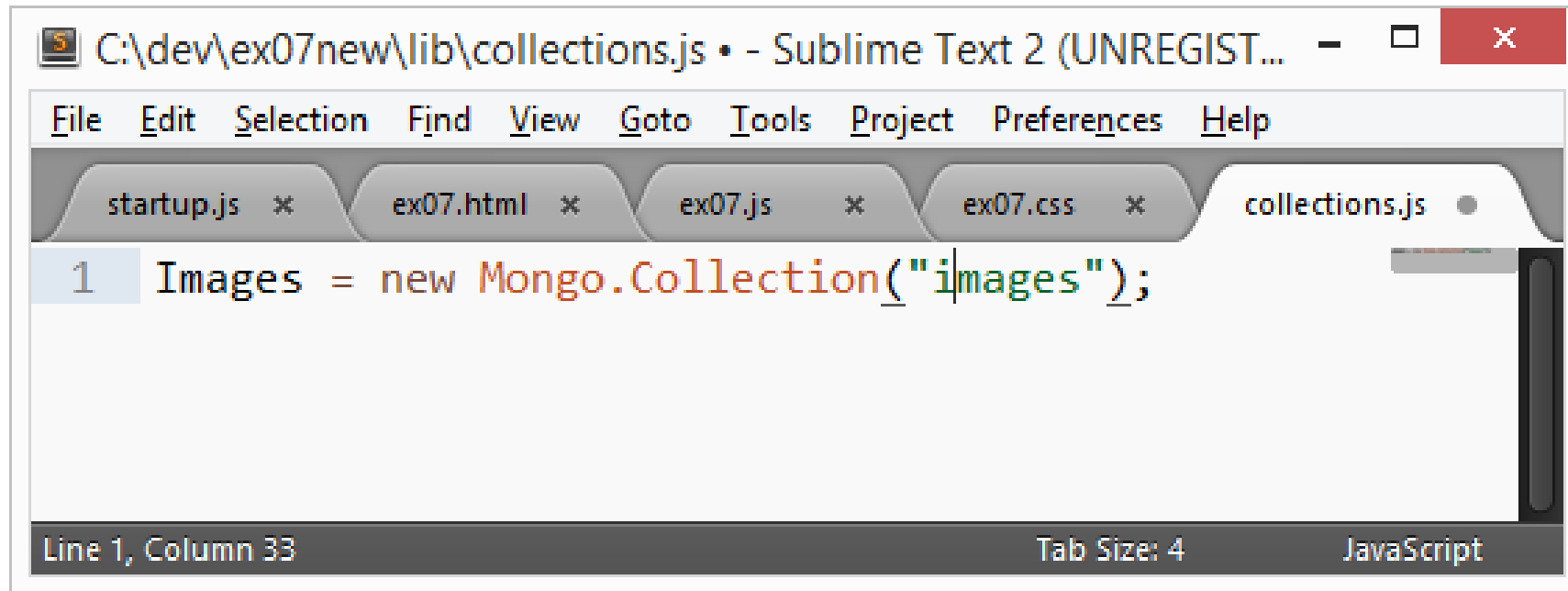
- Windows command prompt:
 - > cd dev
 - > meteor create myproject
 - > cd myproject
 - > meteor

Folder Structure - myproject

- Server
 - startup.js
- Client
 - main.js, main.html, main.css
- Public
 - image1.jpg, image2.jpg, image3.jpg ...
- Lib
 - collections.js

Create a collection of images in the database

lib/ collections.js



```
1 Images = new Mongo.Collection("images");
```

This code is outside client and server folders.

Insert and Count images

Server/ startup.js

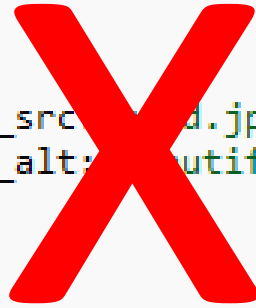
```
C:\dev\ex07new\server\startup.js • - Sublime Text 2 (UNREGISTERED)
File Edit Selection Find View Goto Tools Project Preferences Help
startup.js ex07.html ex07.js ex07.css collections.js
1 Meteor.startup(function(){
2
3     if(Images.find().count() == 0) {
4
5
6         for (var i=1; i< 9; i++){
7             Images.insert(
8                 {
9                     img_src:"img"+i+".jpg",
10                    img_alt:"image number" + i
11                }
12            ); // insert
13        } // for
14        console.log("startup.js says" + Images.find().count());
15    } //end if have no images
16
17 }); // end startup
18
19
20
21
Line 15, Column 13
```

Warning!

The startup function runs only if there is no images in the Collection. You must reset and re-start the Meteor to clean data in the database.

Client/ main.js

```
4
5
6 var img_data = [
7     {
8         img_src:"cat.jpg",
9         img_alt:"beautiful black and white cat"
10    },
11    {
12        img_src:"bird.jpg",
13        img_alt:"beautiful bird"
14    },
15    {
16        img_src:"dog.jpg",
17        img_alt:"cute dog"
18    },
19    },
20 ];
21
22 //Template.images.helpers({images:img_data});
23 Template.images.helpers({images:Images.find()});
24
25 Template.images.events({
26     'click .js-image':function(event){
27         $(event.target).css("width","50px");
28     }
29 }
30
31
```



We don't need the array of images now.
We insert the images in the database.

Client/ main.html

```
4
5 <body>
6   <h1>Animals Gallery</h1>
7   <div class="container">
8     {{> images}}
9   </div>
10 </body>
11
12
13 <template name="images">
14
15   <div class="row">
16     {{#each images}}
17
18       <div class="col-xs-12 col-md-3">
19         <div class="thumbnail">
20
21           
22
23           <div class="caption">
24             <h3> Thumbnail label</h3>
25             <p> Description of the image</p>
26             <button class="js-del-image btn-warning"> delete </button>
27           </div>
28         </div>
29       </div> <!-- /col -->
30
31     {{/each}}
32   </div> <!-- /row -->
33
34 </template>
```

Delete an image – define the event listener

Client/ main.js

```
C:\dev\ex07new\client\ex07.js - Sublime Text 2 (UNREGISTERED)
File Edit Selection Find View Goto Tools Project Preferences Help
startup.js ex07.html ex07.js ex07.css collections.js
1 Template.images.helpers({images:Images.find()});
2
3 Template.images.events({
4
5   'click .js-image':function(event){
6
7     var image_id = this._id;
8     var image_src = this.img_src;
9     console.log("You clicked on image |" + image_id + " - " + image_src);
10  },
11
12  'click .js-del-image':function(event){
13
14    var image_id = this._id;
15    var image_src = this.img_src;
16    console.log("You deleted the image " +image_id + " - " + image_src);
17
18    //delete
19    Images.remove({"_id":image_id});
20
21  }
22
23 }); // end template.images.events
24
25
26
27
```

This refers to the data the template was displaying (the image)

'_id' refers to a unique identifier for an item in a Mongo collection

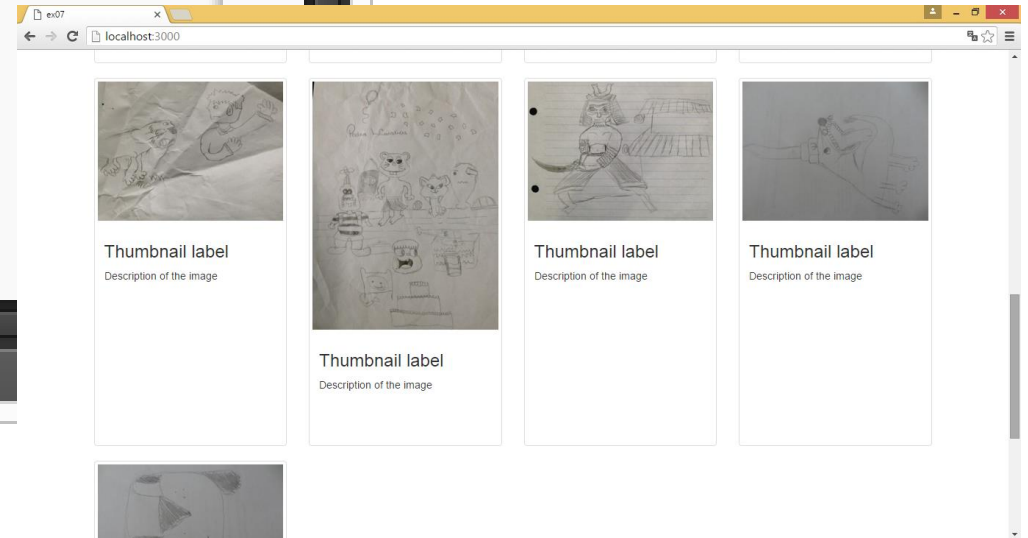
{"_id":image_id} is a Mongo Filter

Define the max and min height of the thumbnails

```
C:\dev\ex07new\client\ex07.css - Sublime Text 2 (UNREGIST...  
File Edit Selection Find View Goto Tools Project Preferences Help  
startup.js * ex07.html * ex07.js * ex07.css * collections.js *  
1 /* CSS declarations go here */  
2 .thumbnail{  
3  
4     min-height: 300px;  
5     max-height: 300px;  
6 }
```

Line 1, Column 1 Tab Size: 4

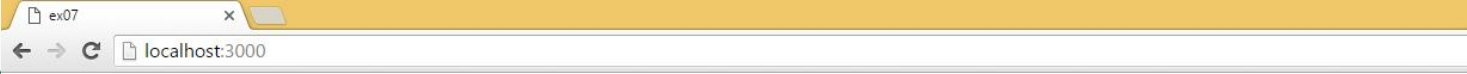
Client/ main.css







Delete an image – slowly effect

```
C:\dev\ex07\ex07.html - Sublime Text 2 (UNREGISTERED)
File Edit Selection Find View Goto Tools Project Preferences Help
ex07.js x ex07.html
12
13 <template name="images">
14
15 <div class="row">
16   {{#each images}}
17
18   <div class="col-xs-12 col-md-3" id="{{_id}}">
19     <div class="thumbnail">
20
21       
23
24       <div class="caption">
25         <h3> Thumbnail label</h3>
26         <p> Description of the image</p>
27         <button class="js-del-image btn-w:
28           button">
29
30
31       </div>
32     </div>
33   </div> <!-- /col -->
34 </each>
</div> <!-- /row -->
</template>
```

Add a div id.
The image object has an id property (mongo db)



Animals Gallery

 <p>Thumbnail label Description of the image delete</p>	 <p>Thumbnail label Description of the image delete</p>	 <p>Thumbnail label Description of the image delete</p>	 <p>Thumbnail label Description of the image delete</p>
--	--	--	--

Elements Console Sources Network Timeline Profiles Resources Audits

```
<html>
<head>...</head>
<body>
  <h1>Animals Gallery</h1>
  <div class="container">
    ::before
    <div class="row">
      ::before
      <div class="col-xs-12 col-md-3" id="dcdfuq88Ff7ZrXC4">...</div>
      <!-- /col -->
      <div class="col-xs-12 col-md-3" id="n2P9XgHZFz:27r5Fhy">...</div>
    </div>
  </body>
</html>
```

```
C:\dev\ex07\ex07.js - Sublime Text 2 (UNREGISTERED)
File Edit Selection Find View Goto Tools Project Preferences Help
ex07.js ex07.html startup.js ex07.css
4
5 if (Meteor.isClient) {
6
7
8 Template.images.helpers({images:Images.find()});
9
10 Template.images.events({
11   'click .js-image':function(event){
12     $(event.target).css("width","50px");
13   },
14   'click .js-del-image':function(event){
15     var image_id = this._id;
16     console.log(image_id);
17
18     // hide slowly
19     $("#"+image_id).hide('slow',function(){
20       //delete
21       Images.remove({"_id":image_id});
22     })
23   })
24 }
25 }
26 }); // end template.images.ev
27 }
28
29 }
30
31
```

jQuery selector `$("#"+image_id)`

When you've finished hiding it, actually delete it from the collection. That will basically cause jquery to animate the whole component out of view.

Line 18, Column 19 Spaces: 2 JavaScript

```
C:\dev\ex07\ex07.html - Sublime Text 2 (UNREGISTERED)
File Edit Selection Find View Goto Tools Project Preferences Help
ex07.js ex07.html startup.js ex07.css
12
13 <template name="images">
14
15 <div class="row">
16   {{#each images}}
17
18     <div class="col-xs-12 col-md-3" id="{{_id}}">
19       <div class="thumbnail">
20
21         
23
24         <div class="caption">
25           <h3> Thumbnail label</h3>
26           <p> Description of the image</p>
27           <button class="js-del-image btn-warning"> delete </
28           button>
29         </div>
30       </div>
31     </div> <!-- /col -->
32   {{/each}}
33 </div> <!-- /row -->
34 </template>
```

12 characters selected Tab Size: 4 HTML

Animals Gallery



Thumbnail label

Description of the image

delete



Thumbnail label

Description of the image

delete



Thumbnail label

Description of the image

delete

Elements Console Sources Network Timeline Profiles Resources Audits

```
<!DOCTYPE html>
<html>
  <head>...</head>
  <body>
    <h1>Animals Gallery</h1>
    <div class="container">
      ::before
      <div class="row">
        ::before
        <div class="col-xs-12 col-md-3" id="dcdfuq88FFt7ZrXC4">...</div>
        <!-- /col -->
        <div class="col-xs-12 col-md-3" id="yY7e95ckGFkHqt6Zm">...</div>
      </div>
    </div>
  </body>
</html>
```

html body div.container div.row **div#dcdfuq88FFt7ZrXC4.col-xs-12.col-md-3**

Console Emulation Rendering

Filter Regex Hide network messages **All** Errors Warnings Info Logs Debug Handled

Styles

```
element.
style {
}

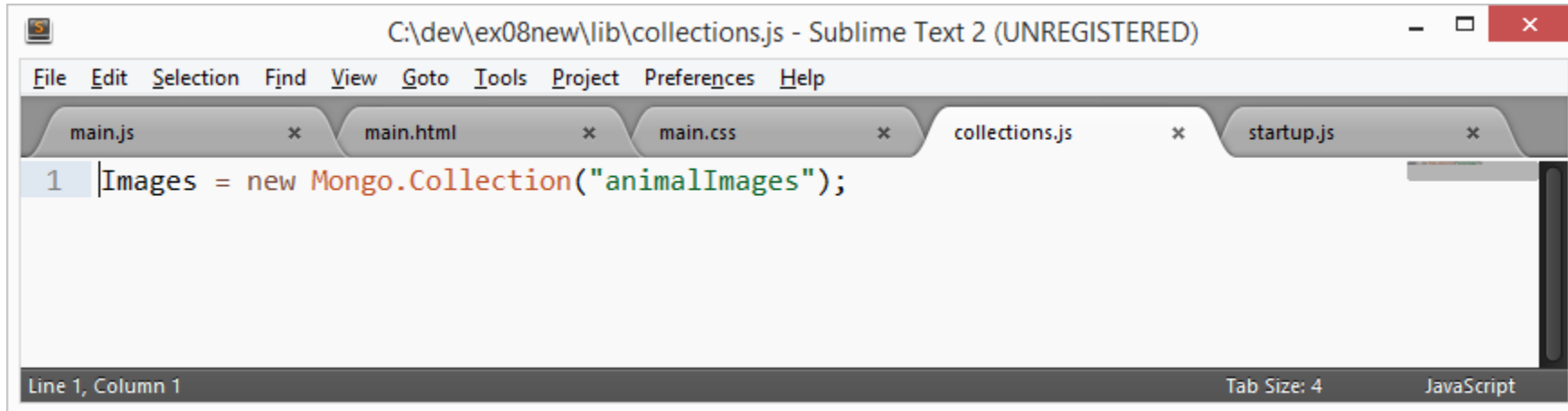
.css:1936
@media
(min-
width:
992px)
```

4 – Addings itens in a collection
with basic form

Create your application and install Bootstrap

- Windows command prompt:
 - > cd dev
 - > meteor create myproject
 - > cd myproject
 - > meteor add twbs:bootstrap
 - > meteor

lib/ collections.js



The image shows a screenshot of the Sublime Text 2 editor window. The title bar reads "C:\dev\ex08new\lib\collections.js - Sublime Text 2 (UNREGISTERED)". The menu bar includes "File", "Edit", "Selection", "Find", "View", "Goto", "Tools", "Project", "Preferences", and "Help". The tab bar shows several open files: "main.js", "main.html", "main.css", "collections.js", and "startup.js". The "collections.js" tab is active, displaying the following code on line 1:

```
1 | Images = new Mongo.Collection("animalImages");
```

The status bar at the bottom indicates "Line 1, Column 1", "Tab Size: 4", and "JavaScript".

Server/ startup.js

```
C:\dev\ex08new\server\startup.js - Sublime Text 2 (UN
File Edit Selection Find View Goto Tools Project Preferences Help
main.js x main.html x main.css x collections.js x startup.js x
1 Meteor.startup(function(){
2
3     if(Images.find().count() == 0) {
4
5
6         for (var i=1; i< 9; i++){
7             Images.insert(
8                 {
9                     img_src:"img"+i+".jpg",
10                    img_alt:"image number" + i,
11                    img_title:"image title" + i,
12                    img_author:"image author" + i,
13                }
14            ); // insert
15        } // for
16
17    } //end if have no images
18
19    console.log("startup.js says" + Images.find().count());
20
21    }); // end startup
22
23
24
```

Line 5, Column 1

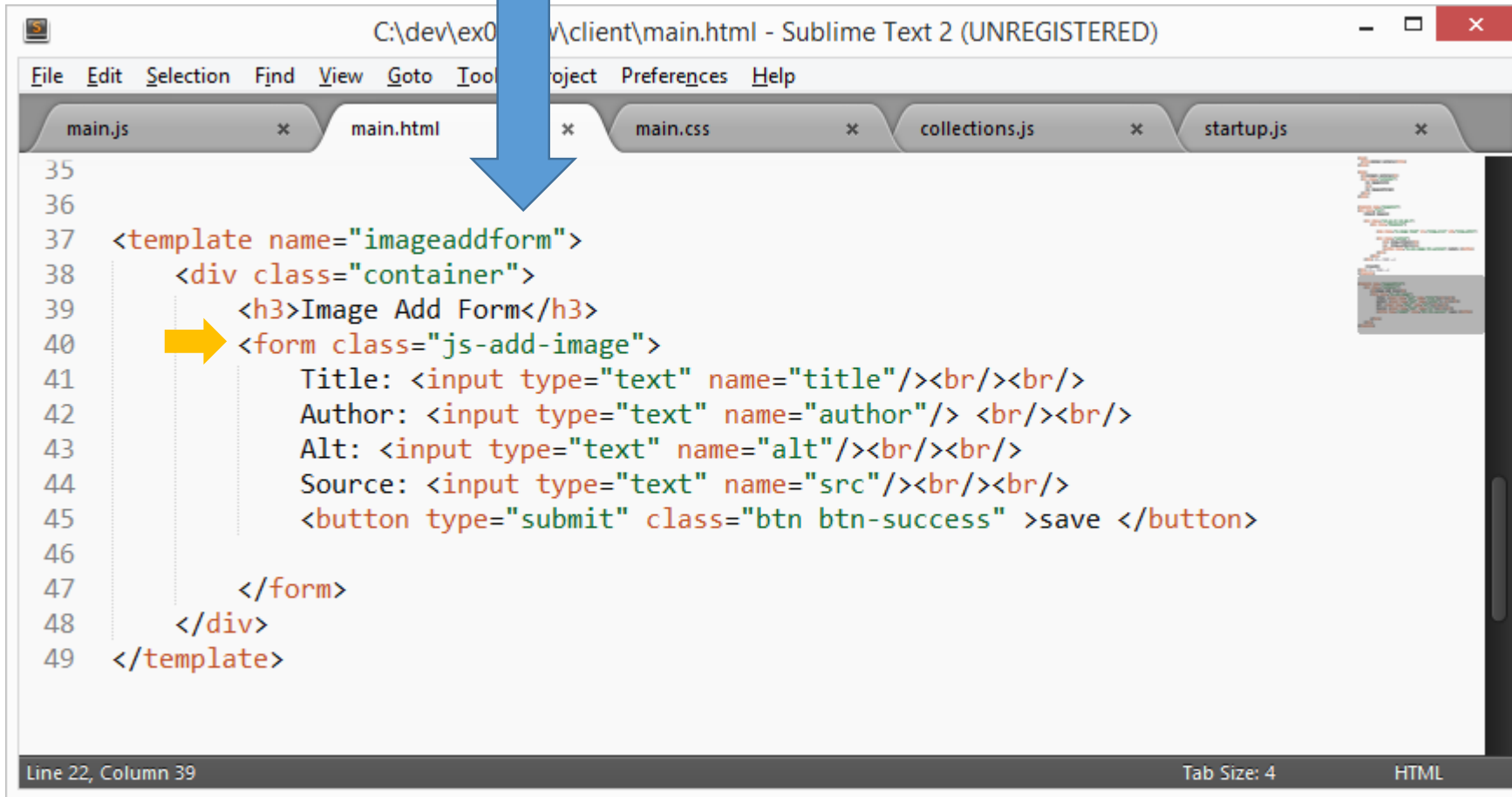
Tab Size: 4 JavaScript

Client/ main.html

```
5 <body>
6   <h1>Animals Gallery</h1>
7   <div class="container">
8     {{> imagelist}}
9     <hr>
10    {{> imageaddform}}
11  </div>
12 </body>
13
14
15 <template name="imagelist">
16 <div class="row">
17   {{#each images}}
18
19   <div class="col-xs-12 col-md-3">
20     <div class="thumbnail">
21
22       
23
24       <div class="caption">
25         <h3> {{img_title}}</h3>
26         <p> {{img_author}}</p>
27         <button class="js-del-image btn-warning"> delete </button>
28       </div>
29     </div>
30 </div> <!-- /col -->
31
32   {{/each}}
33 </div> <!-- /row -->
34 </template>
35
```



Client/ main.html



```
35
36
37 <template name="imageaddform">
38   <div class="container">
39     <h3>Image Add Form</h3>
40     <form class="js-add-image">
41       Title: <input type="text" name="title"/><br/><br/>
42       Author: <input type="text" name="author"/> <br/><br/>
43       Alt: <input type="text" name="alt"/><br/><br/>
44       Source: <input type="text" name="src"/><br/><br/>
45       <button type="submit" class="btn btn-success" >save </button>
46
47     </form>
48   </div>
49 </template>
```

Line 22, Column 39

Tab Size: 4

HTML

Client/ main.js

```
1 // *****
2 // Template imagelist
3 // *****
4
5 Template.imagelist.helpers({images:Images.find()});
6
7 Template.imagelist.events({
8
9   'click .js-image':function(event){
10
11     var image_id = this._id;
12     var image_src = this.img_src;
13     console.log("You clicked on image " + image_id + " - " + image_src);
14   },
15
16   'click .js-del-image':function(event){
17
18     var image_id = this._id;
19     var image_src = this.img_src;
20     console.log("You deleted the image " +image_id + " - " + image_src);
21
22     //delete
23     Images.remove({"_id":image_id});
24
25   }
26
27 }); // end template.imagelist.events
28
29
```

Client/ main.js

```
30 // *****
31 // Template imageaddform
32 // *****
33
34 Template.imageaddform.events({
35
36     'submit .js-add-image':function(event){
37
38         //problem though since our page still refreshes whenever the form is submitted and we can't see the console.log
39         event.preventDefault();
40
41         var image_title;
42         var image_author;
43         var image_alt;
44         var image_id = this._id;
45         var image_src = this.img_src;
46
47         image_title = event.target.title.value;
48         image_author = event.target.author.value;
49         image_alt = event.target.alt.value;
50         image_src = event.target.src.value;
51
52         console.log("Adding Image - title: "+image_title + " author: "+image_author+ " source: "
53             +image_src+ " alt: "+image_alt);
54
55         Images.insert({
56             img_title:image_title,
57             img_author:image_author,
58             img_alt:image_alt,
59             img_src:image_src,
60             createdOn: new Date()
61         });
62
63         console.log("Success ! Add Image - Title: "+image_title+" Author:"
64             +image_author + " Source:"+image_src + ".");
65
66         return false;
67     }
68
69 }); // end template.bookaddform.events
```

It will just stop the browser from doing whatever it normally does when they submit a form. The browser normally reloads page and it just wipes everything that was in the console.

```
14
15 <template name="imagelist">
16 <div class="row">
17   {{#each images}}
18
19   <div class="col-xs-12 col-md-3">
20     <div class="thumbnail">
21
22       
23
24       <div class="caption">
25         <h3> {{img_title}}</h3>
26         <p> {{img_author}}</p>
27         <button class="js-del-image btn-warning"> delete </button>
28       </div>
29     </div>
30 </div> <!-- /col -->
31
32   {{/each}}
33 </div> <!-- /row -->
34 </template>
```

Line 22, Column 39

Tab Size: 4

HTML

```
1 /* CSS declarations go here */
2 .thumb{
3
4     min-height: 150px;
5     max-height: 150px;
6 }
```

Welcome
Community portal
Village pump
Help center

Seleção do idioma
English ▾
Selecionar

Participate
Upload file
Recent changes
Latest files
Random file
Contact us

Tools
What links here
Related changes
Special pages
Permanent link
Page information
Nominate for deletion

File:White Tiger 6 (3865790598).jpg

Wikimedia Commons está disponível em português do Brasil. [x]

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-  **Download**
all sizes
-  **Use this file**
on the web
-  **Use this file**
on a wiki
-  **Email a link**
to this file
-  **Information**
about reusing
- 



image title5

image author5

delete



image title6

image author6

delete



image title7

image author7

delete



image title8

image author8

delete

Image Add Form

Title:

Author:

Alt:

Source:

save



image title5

image author5

delete



image title6

image author6

delete



image title7

image author7

delete



image title8

image author8

delete



Tiger

Tony Hisgett

delete


```
C:\dev\ex08new\client\main.js - Sublime Text 2 (UNREGISTERED)
File Edit Selection Find View Goto Tools Project Preferences Help
main.js * main.html * main.css * collections.js * startup.js *
1 // *****
2 // Template imagelist
3 // *****
4
5 Template.imagelist.helpers({
6     images: Images.find(
7         {}, {sort: {createdOn: -1}}
8     ));
9
4 lines, 100 characters selected
```

Specify in the sort parameter the field or fields to sort by and a value of 1 or -1 to specify an ascending or descending sort respectively.

<https://docs.mongodb.com/manual/reference/method/cursor.sort/>

5 – Navigation and Layout with iron router

Create your application, install Bootstrap and Router

- Windows command prompt:

- > cd dev
- > meteor create myproject
- > cd myproject
- > meteor add twbs:bootstrap
- > meteor add iron:router
- > meteor

You can install iron:router using Meteor's package management system

<http://iron-meteor.github.io/iron-router/>

```
C:\dev\ex09new\client\temp.js - Sublime Text 2 (UNREGISTERED)
File Edit Selection Find View Goto Tools Project Preferences Help
main.js temp.js
1 Router.route('/', function () {
2   this.render('Home');
3 });
4
5
6
7
8 Router.route('/items');
```

Line 8, Column 24 Tab Size: 4 JavaScript

When the user navigates to the url "/", the route above will render the template named "Home" onto the page.

This second route will automatically render a template named "Items" or "items" to the page.

Client/ main.html

Layouts

Layouts allow you to reuse a common look and feel in multiple pages in your application so you don't have to duplicate the html and logic on every single page template.

Layouts are just templates. But, inside of a layout you can use a special helper called **yield**. You can think of yield as a placeholder for content.

The placeholder is called a region. The content will be "injected" into the region when we actually run our route.

This lets us reuse the layout on many different pages, only changing the content of the yield regions.

File Edit Selection Find View Go

main.html x

main.js — ex09new

```
1 <head>
2   <title>Animal Gal
3 </head>
4
5 <template name="ApplicationLayout">
6   {{>yield "header-area"}}
7   {{>yield "main-area"}}
8 </template>
9
10
```

Line 65, Column 1

Tab Size: 4

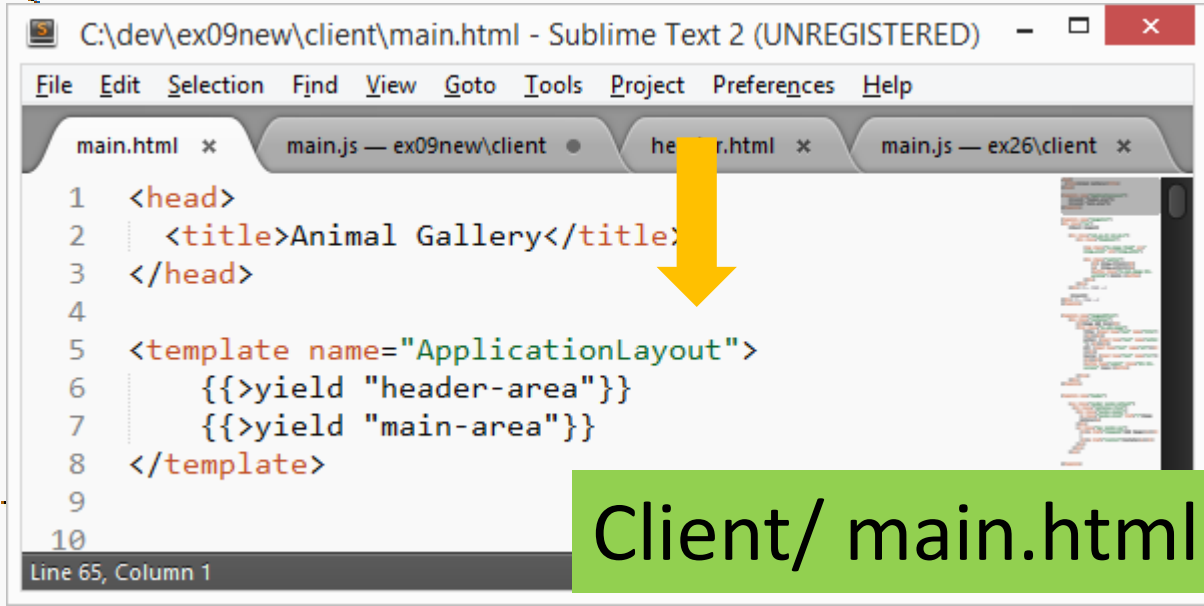
HTML



```
84 });
85 this.render('imagegallery', {
86   to: "main-area"
87 });
88 });
89
90 Router.route('/imageadd', function () {
91   this.render('header', {
92     to: "header-area"
93   });
94   this.render('imageaddform', {
95     to: "main-area"
96   });
97 });
98
99 Router.route('/contact', function () {
100   this.render('header', {
101     to: "header-area"
102   });
103   this.render('contact', {
104     to: "main-area"
105   });
106 });
```



If you want to use a default layout template for all routes you can configure a global Router option.



Client/ main.html

Client/ main.js

```
76 // Routing
77 Router.configure({
78   templateUrl: 'ApplicationLayout'
79 });
80
81 Router.route('/', function () {
82   this.render('header', {
83     to: "header-area"
84   });
85   this.render('imagelist', {
86     to: "main-area"
87   });
88 });
89
90 Router.route('/imageadd', function () {
91   this.render('header', {
92     to: "header-area"
93   });
94   this.render('imageaddform', {
95     to: "main-area"
96   });
97 });
98
99 Router.route('/contact', function () {
100   this.render('header', {
101     to: "header-area"
102   });
103   this.render('contact', {
104     to: "main-area"
105   });
106 });
```

```
1 <head>
2   <title>Animal Gallery</title>
3 </head>
4
5 <template name="ApplicationLayout">
6   {{>yield "header-area"}}
7   {{>yield "main-area"}}
8 </template>
9
10 <template name="imagelist">
11   ...
12 </template>
13
14 <template name="imageaddform">
15   <div class="container">
16     ...
17 </template>
18
19 <template name="header">
20   <nav class="navbar navbar-default">
21     <div class="container-fluid">
22       <div class="navbar-header">
23         <a class="navbar-brand" href="/">Image Gallery</a>
24       </div>
25       <ul class="nav navbar-nav">
26         <li><a href="/imageadd">Add Image</a></li>
27         <li><a href="/contact">Contato</a></li>
28       </ul>
29     </div>
30   </nav>
31 </template>
32
33 <template name="contact">
34   <p> Contact Information here </p>
35 </template>
```

Client/ main.html

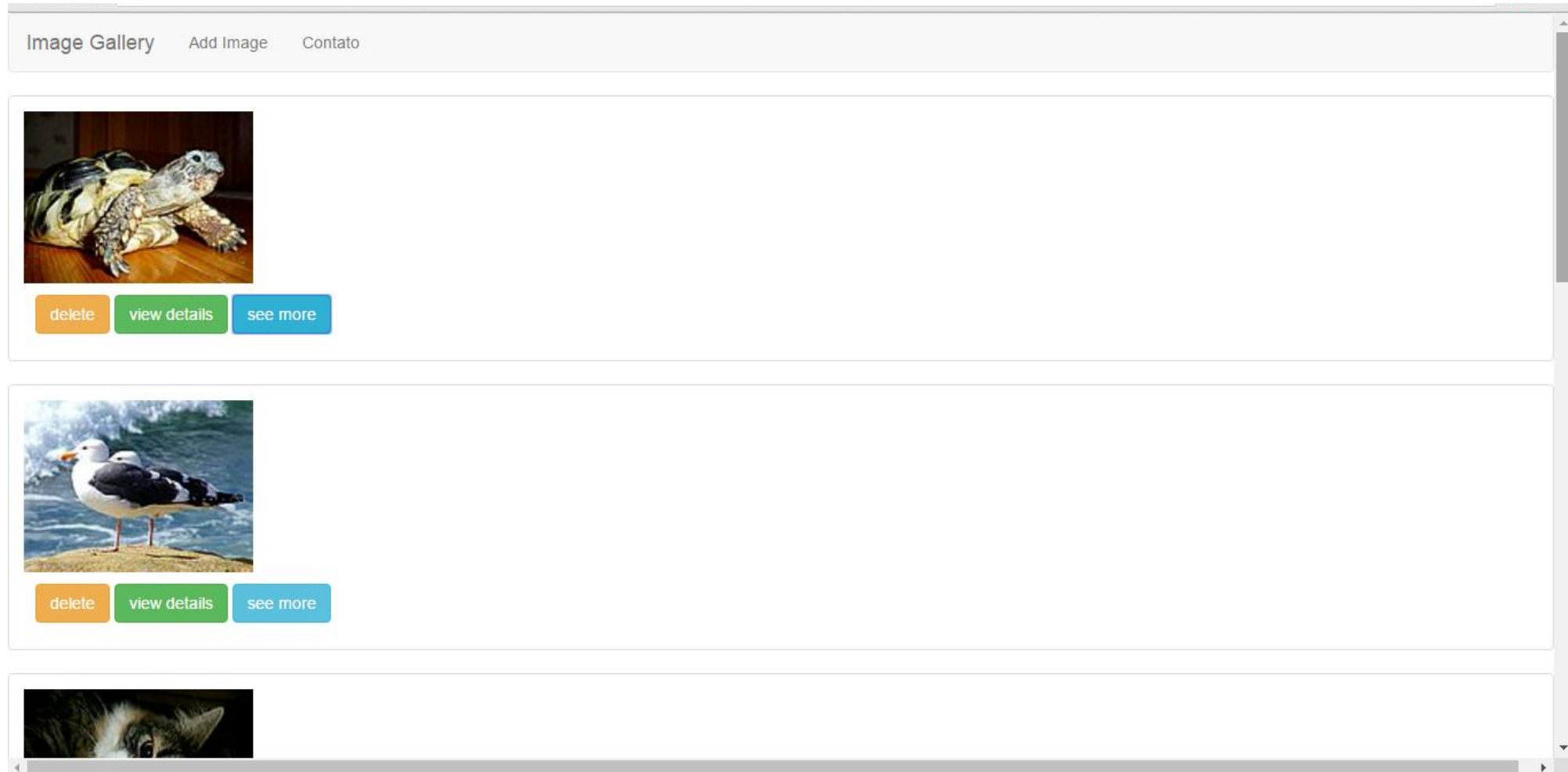

```
37 Template.imageaddform.events({
38
39   'submit .js-add-image':function(event){
40
41     //problem though since our page still refreshes whenever the form is submitted and we can't see the console.log statements.
42     event.preventDefault();
43
44     var image_title;
45     var image_author;
46     var image_alt;
47     var image_id = this._id;
48     var image_src = this.img_src;
49
50     image_title = event.target.title.value;
51     image_author = event.target.author.value;
52     image_alt = event.target.alt.value;
53     image_src = event.target.src.value;
54
55     console.log("Adding Image - title: "+image_title + " author: "+image_author+ " source: "
56       +image_src+ " alt: "+image_alt);
57
58     Images.insert({
59       img_title:image_title,
60       img_author:image_author,
61       img_alt:image_alt,
62       img_src:image_src,
63       createdAt: new Date()
64     });
65
66     console.log("Success ! Add Image - Title: "+image_title+" Author:"
67       +image_author + " Source:"+image_src + ".");
68
69     Router.go('/');
70     return false;
71   }
```

Client/ main.js

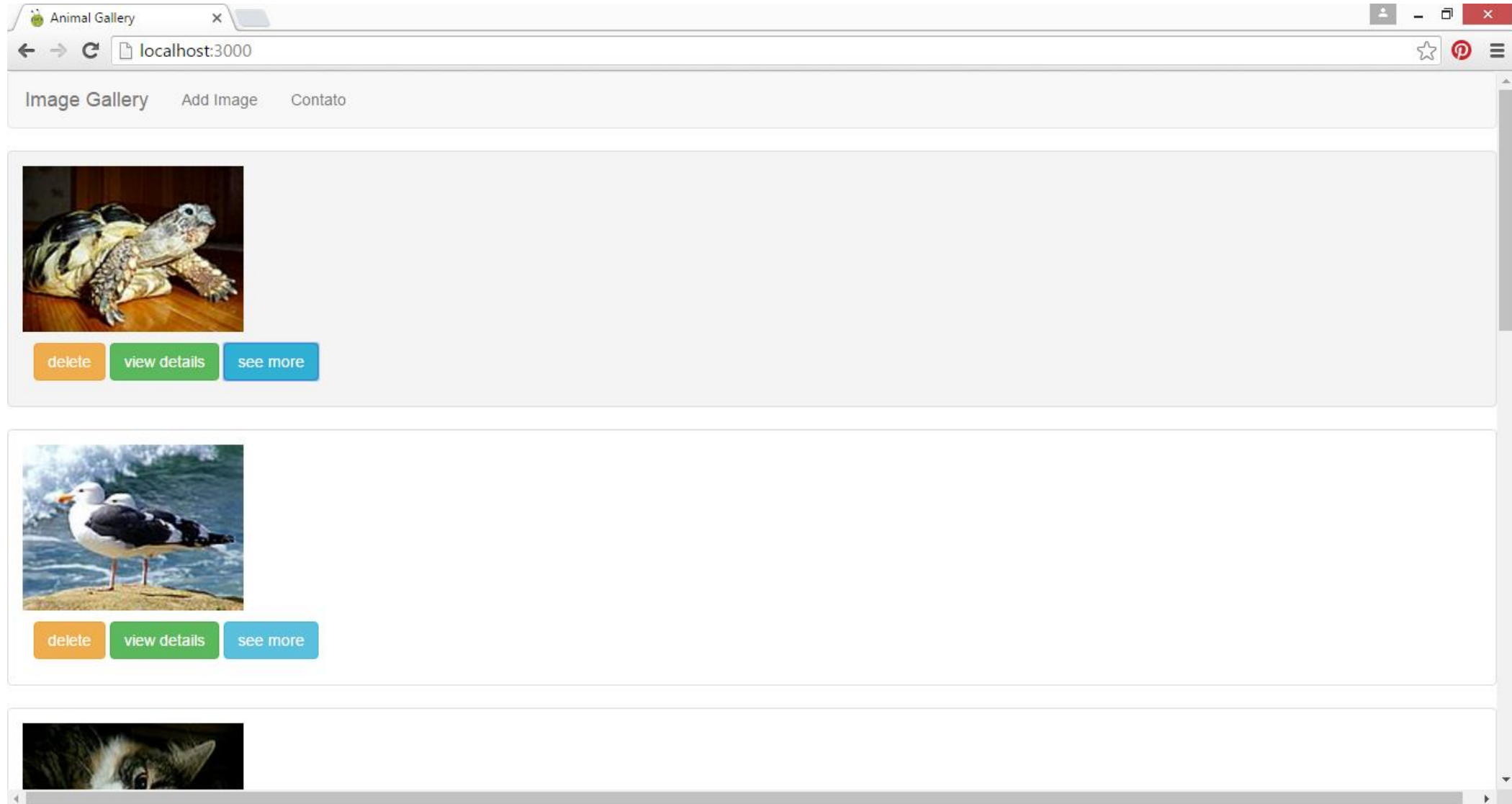
Test yourself with Exercises

- Continue o exercício feito em sala de aula da image gallery
- Tire todas as suas dúvidas para que esteja funcionando o código até o exercício dado em sala de aula (até o slide anterior). Precisa funcionar a página com a listagem de imagens com opção de remoção de imagem, o formulário de cadastro de imagem e a página de contato. Todos as páginas com a barra de navegação no topo. Use os pacotes `twbs:bootstrap` e `iron:router`.
- Faça os exercícios definidos nos próximos slides.

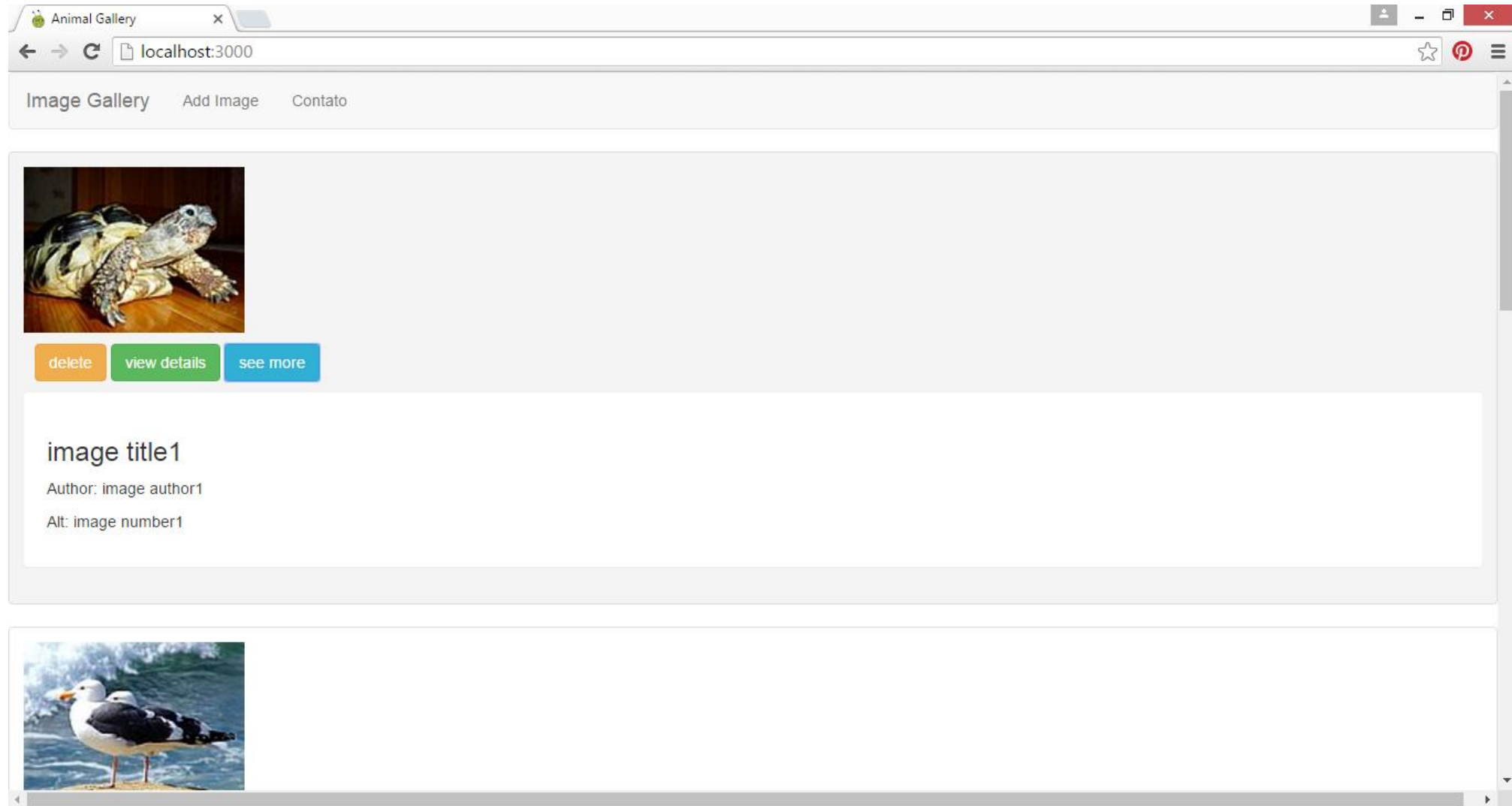
1. Adapte o seu código para apresentar cada registro em uma única linha. Tanto a imagem quanto os botões devem estar alinhados a esquerda. Crie os três botões (delete, view details* e see more) usando estilos do Bootstrap. * A ação do botão “view details” não é para ser implementada agora. Este será um assunto da próxima aula.



2. Faça funções para acender e apagar o background da “janela” de cada imagem quando o usuário passar o mouse por cima/ sair de cima.

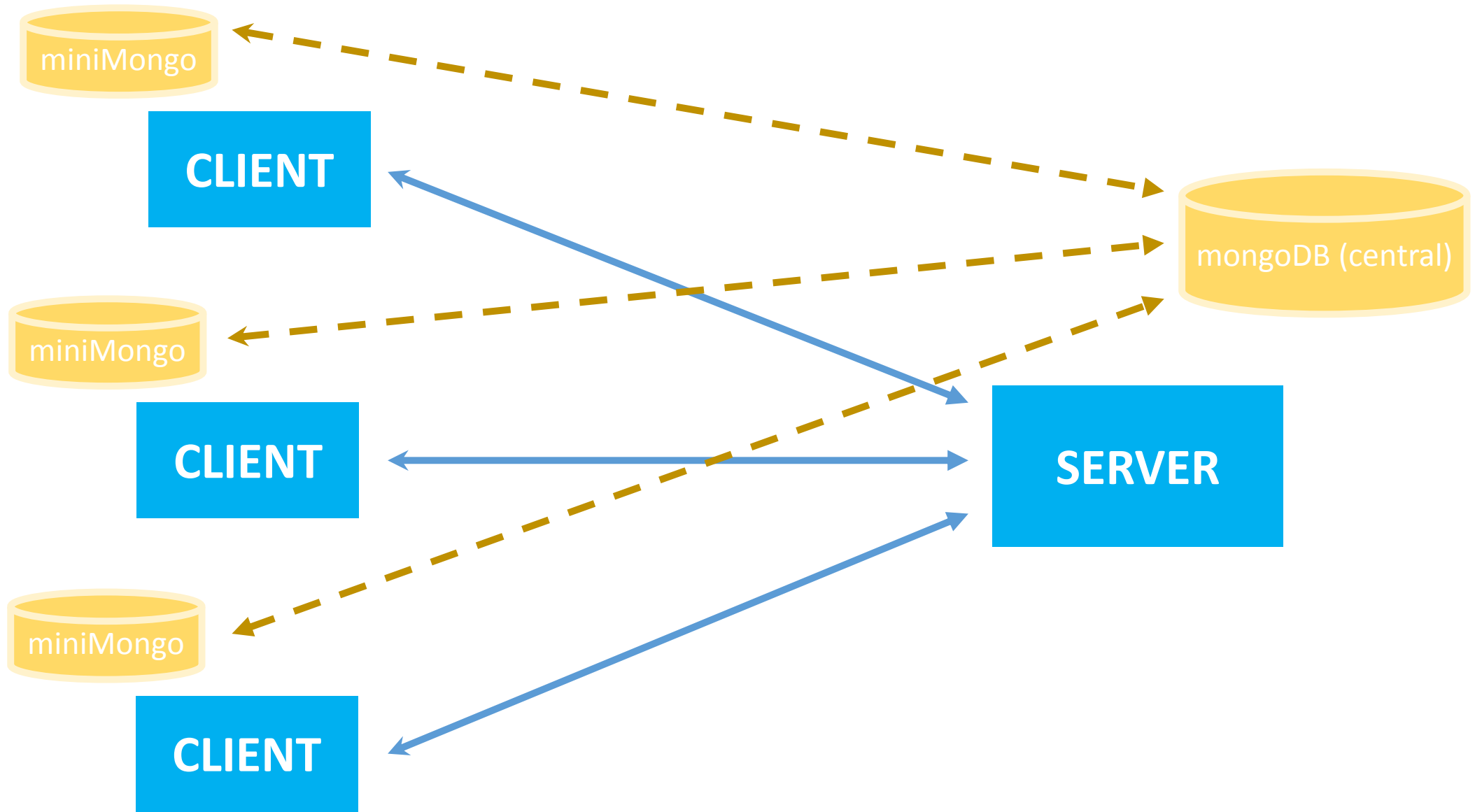


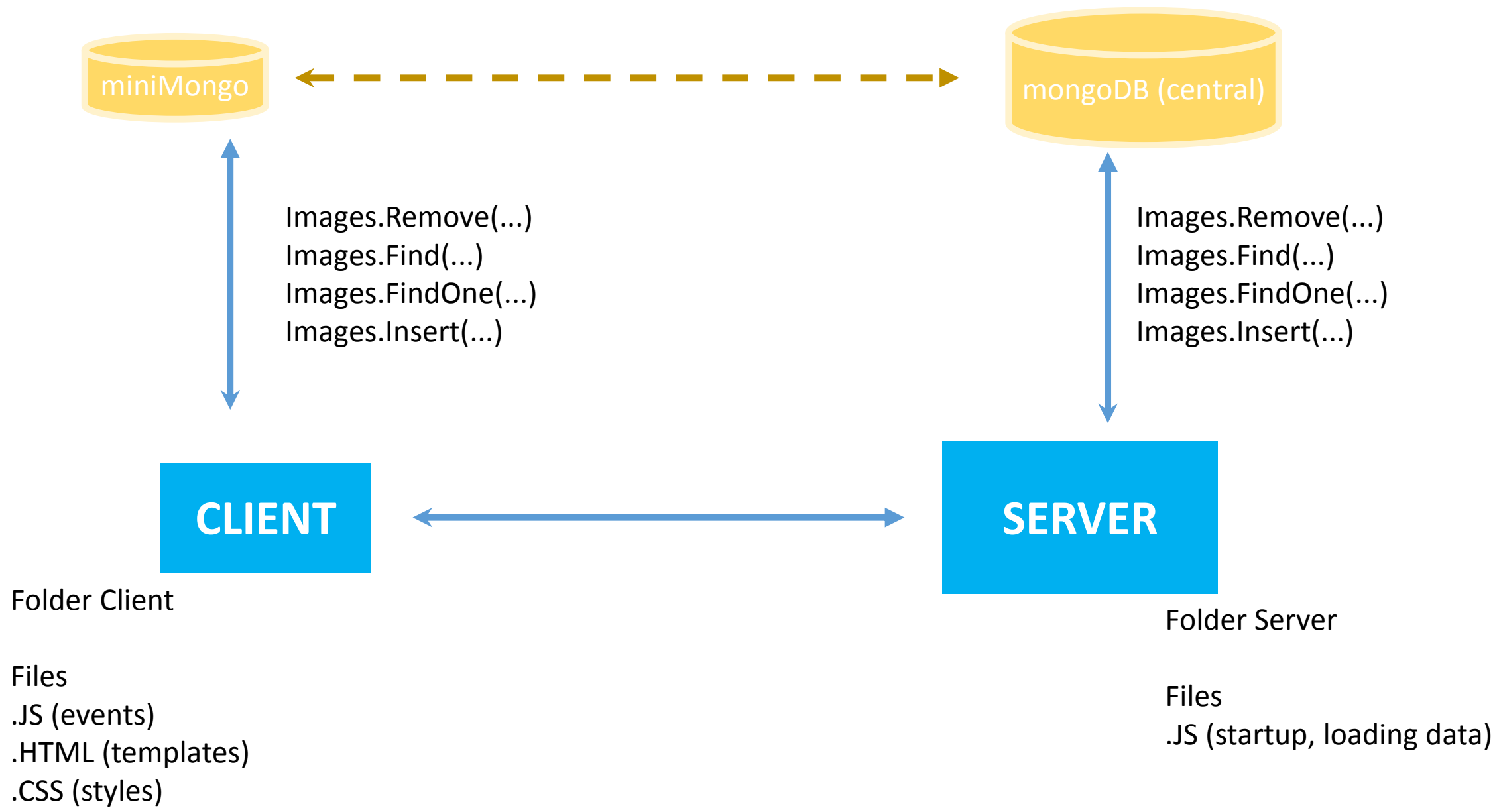
3. Faça função que mostre atributos da imagem quando usuário clicar no botão azul “see more”.

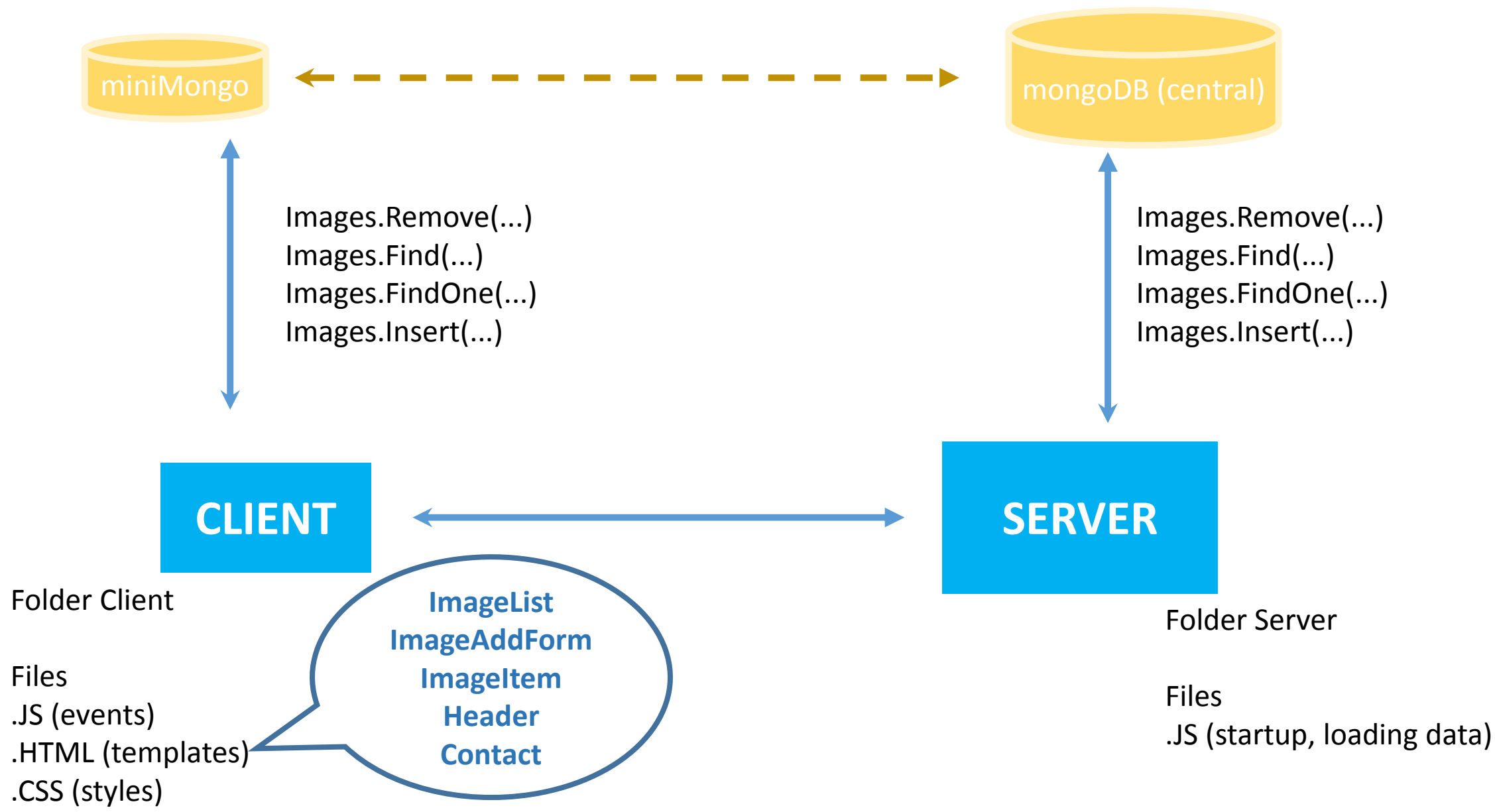


6 – Showing item details











CLIENT

HTML Templates

ImageList
(js-del-image, js-view-image)



click



click

Images.Remove

Images.FindOne

ImageAddForm
(js-add-image)



submit

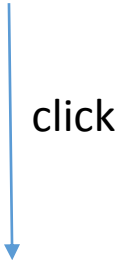
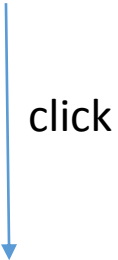
Images.Insert

ImageItem

JS Events

HTML Templates

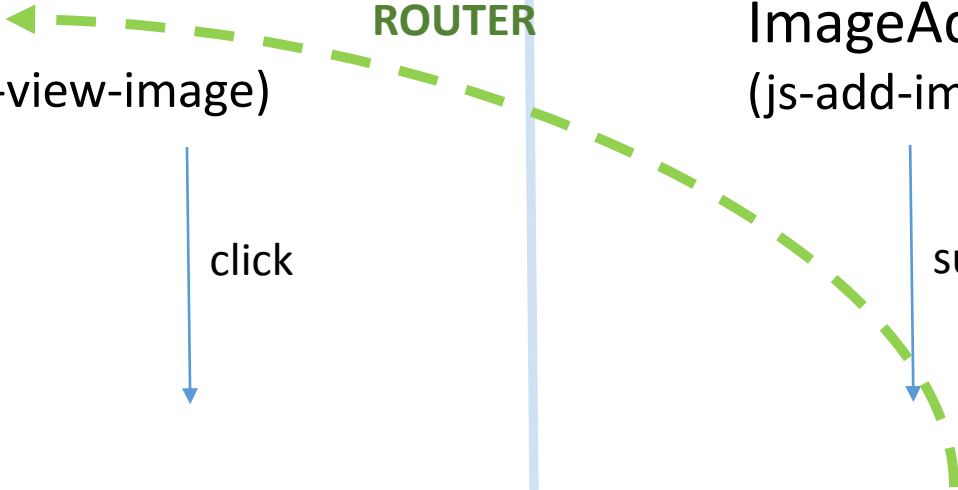
ImageList
(js-del-image, js-view-image)



Images.Remove

Images.FindOne

ROUTER



ImageAddForm
(js-add-image)



Images.Insert

ImageItem

JS Events

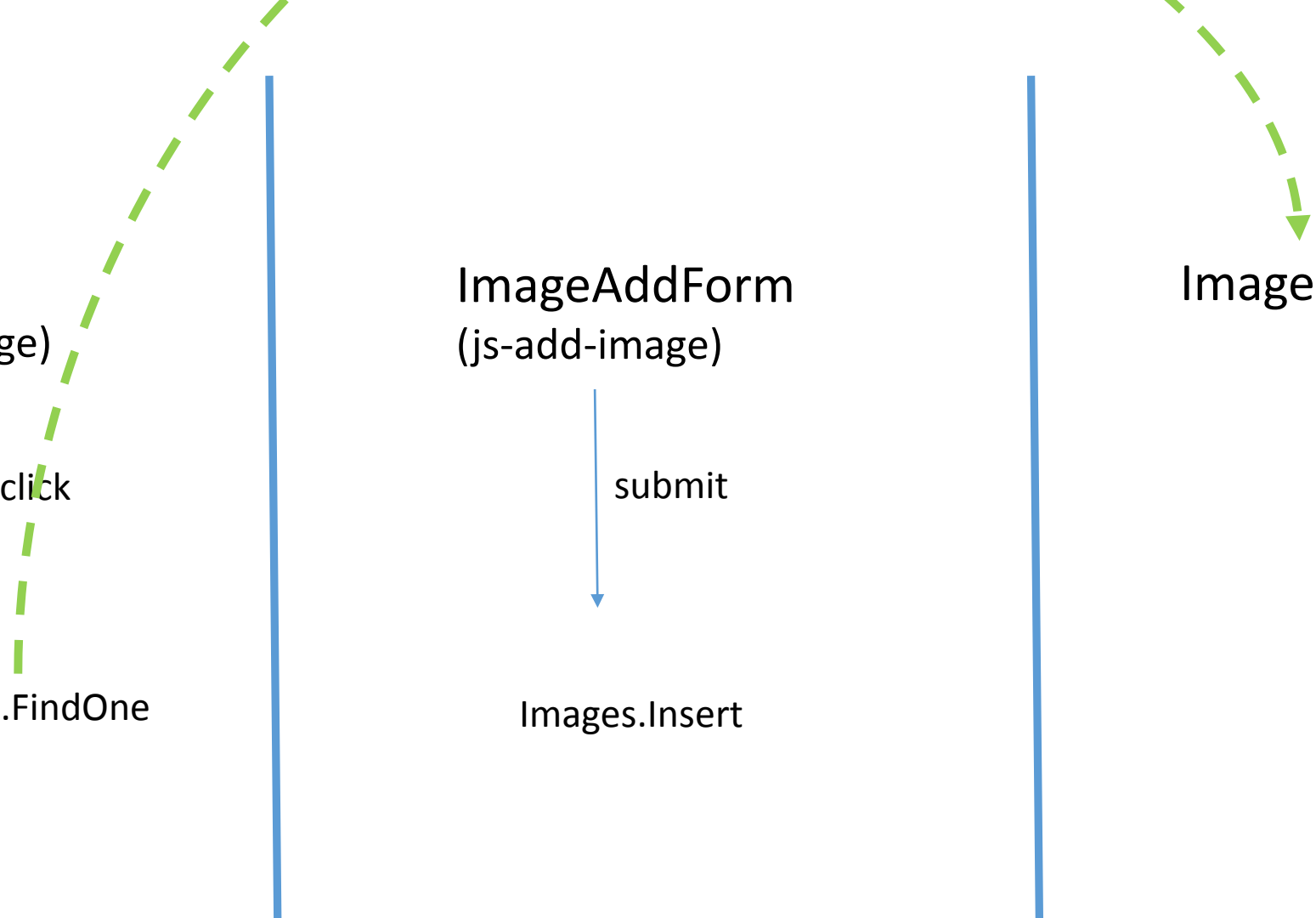
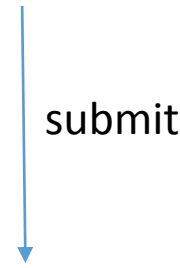
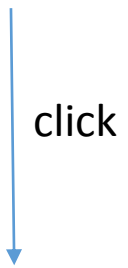
ROUTER

HTML Templates

ImageList
(js-del-image, js-view-image)

ImageAddForm
(js-add-image)

ImageItem



Images.Remove

Images.FindOne

Images.Insert

JS Events

Create your application, install Bootstrap and Router

- Windows command prompt:
 - > cd dev
 - > meteor create myproject
 - > cd myproject
 - > meteor add twbs:bootstrap
 - > meteor add iron:router
 - > meteor

Client/ main.html

```
C:\dev\ex10new\client\main.html - Sublime Text 2 (U
File Edit Selection Find View Goto Tools Project Preferences Help
main.html x startup.js x main.js x
10
11 <template name="imagelist">
12 <div class="row">
13   {{#each images}}
14
15   <div class="col-xs-12 col-md-3">
16     <div class="thumbnail">
17
18       
19
20       <div class="caption">
21         <h3> {{img_title}}</h3>
22         <p> {{img_author}}</p>
23         <button class="js-del-image btn btn-warning"> delete </button>
24         <button class="js-view-image btn btn-success"> view </button>
25       </div>
26     </div>
27   </div> <!-- /col -->
28
29   {{/each}}
30 </div> <!-- /row -->
31 </template>
32
33
61 characters selected Tab Size: 4 HTML
```

```
10 Template.imagelist.events({
11
12   'click .js-image':function(event){
13
14     var image_id = this._id;
15     var image_src = this.img_src;
16     console.log("You clicked on image " + image_id + " - " + image_src);
17   },
18
19   'click .js-del-image':function(event){
20
21     var image_id = this._id;
22     var image_src = this.img_src;
23     console.log("You deleted the image " +image_id + " - " + image_src);
24
25     //delete
26     Images.remove({"_id":image_id});
27
28   },
29
30   'click .js-view-image':function(event){
31
32     var image_id = this._id;
33
34     console.log("view image detail, id image: " + image_id);
35     Router.go('/image/' + image_id);
36     return false;
37
38   }
39
40
41
42
```

Client/ main.js

Client/ main.js

```
106 Router.route('/imageadd', function () {
107   this.render('header',{
108     to:"header-area"
109   });
110   this.render('imageaddform',{
111     to:"main-area"
112   });
113 });
114
115 Router.route('/contact', function () {
116   this.render('header',{
117     to:"header-area"
118   });
119   this.render('contact',{
120     to:"main-area"
121   });
122 });
123
124
125 Router.route('/image/:_id', function () {
126   this.render('header',{
127     to:"header-area"
128   });
129   this.render('imageitem',{
130     to:"main-area",
131     data:function(){
132       return Images.findOne({_id:this.params._id});
133     }
134   });
135 });
```

Route Parameters

Routes can have variable parameters. For example, you can create one route to show any image with an id. The id is variable depending on the image you want to see such as "/image/1" or "/image/2".

To declare a named parameter in your route use the : syntax in the url followed by the parameter name. When a user goes to that url, the actual value of the parameter will be stored as a property on this.params in your route function.

Client/ main.html



The screenshot shows the Sublime Text 2 editor with the file path `C:\dev\ex10new\client\main.html`. The editor has three tabs open: `main.html`, `startup.js`, and `main.js`. The `main.html` tab is active, showing HTML code for a template named "imageitem". The code is as follows:

```
48
49 <template name="imageitem">
50
51 <div class="container">
52     <h3>Image Details</h3>
53     <hr>
54     <div class="caption">
55         <p> Title = {{img_title }}</p>
56         <p> Author = {{img_author }}</p>
57         <p> Alt = {{img_alt }}</p>
58         <p> Source = {{img_src}}</p>
59         <a href="/">Back to image list</a>
60     </div>
61 </div>
62
63 </template>
64
```

The status bar at the bottom indicates "27 characters selected", "Tab Size: 4", and "HTML".

Ingresso Rápido - Venda x Animal Gallery x 160px-Polarbrown-2.jpg x Nova guia x

localhost:3000

Image Gallery Add Image Contato




image title1
image author1
[delete](#) [view](#)




image title2
image author2
[delete](#) [view](#)




image title3
image author3
[delete](#) [view](#)




image title4
image author4
[delete](#) [view](#)




image title5
image author5
[delete](#) [view](#)




image title6
image author6
[delete](#) [view](#)




image title7
image author7
[delete](#) [view](#)


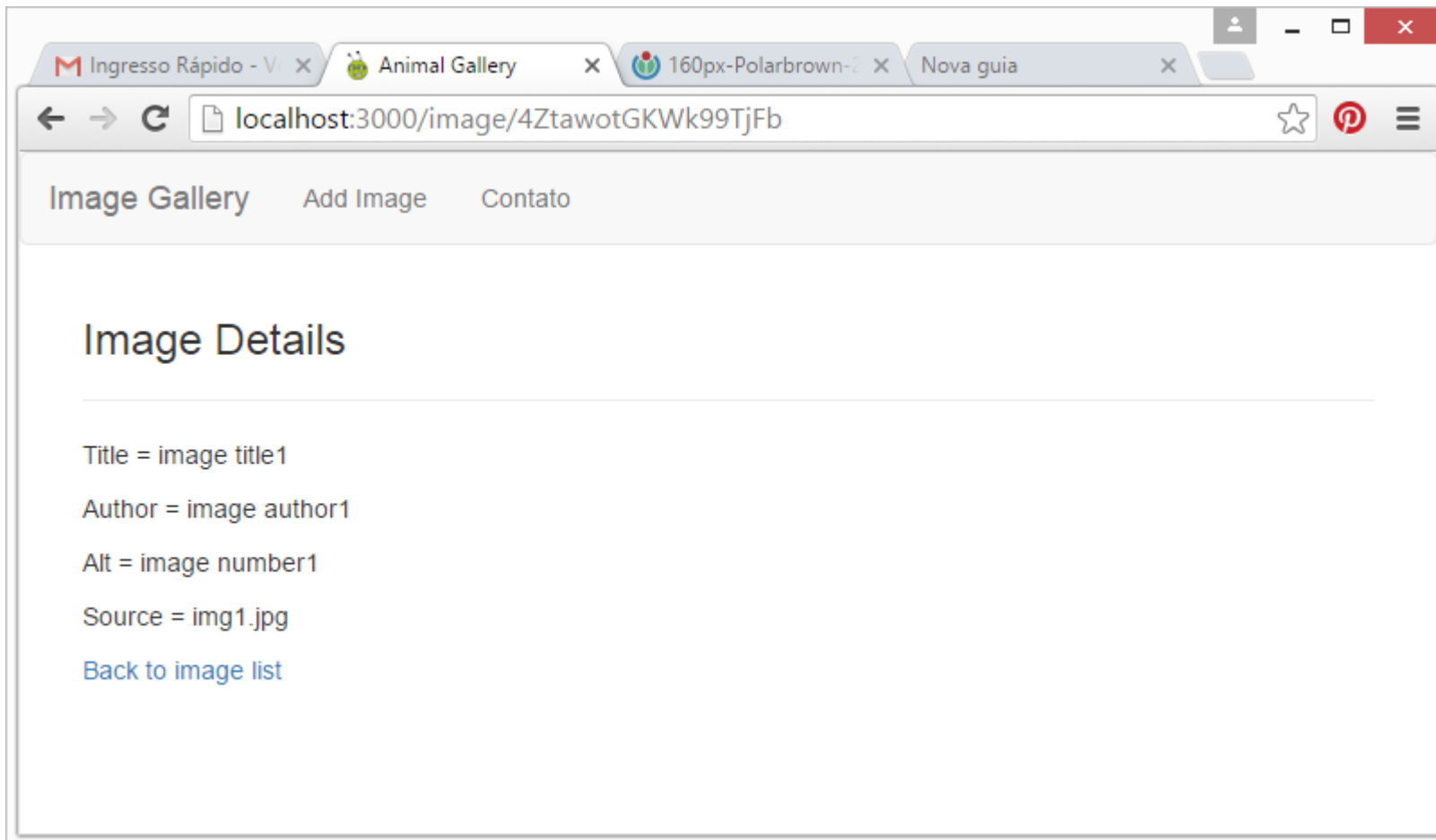


image title8
image author8
[delete](#) [view](#)



Ingresso Rápido - V

Animal Gallery

160px-Polarbrown-

Nova guia



localhost:3000/image/4ZtawotGKWk99TjFb



Image Gallery

Add Image

Contato

Image Details

Title = image title1

Author = image author1

Alt = image number1

Source = img1.jpg

[Back to image list](#)

6 – Editing an item



image title22

Info + Edit Delete



image title3

Info + Edit Delete



image title4

Info + Edit Delete



image title5

Info + Edit Delete



image title6

Info + Edit Delete

Animal Gallery


localhost:3000/image/DgMm57F43H6mLqAwT

Image Gallery

Add Image

Contato

Image Details



Title = image title22

Author = image author22

Alt = image number22

[Back to image list](#)

Animal Gallery x

localhost:3000

Image Gallery Add Image Contato




image title22

Info + Edit Delete

image title22

Author: image author22

Alt: image number22




image title3

Info + Edit Delete


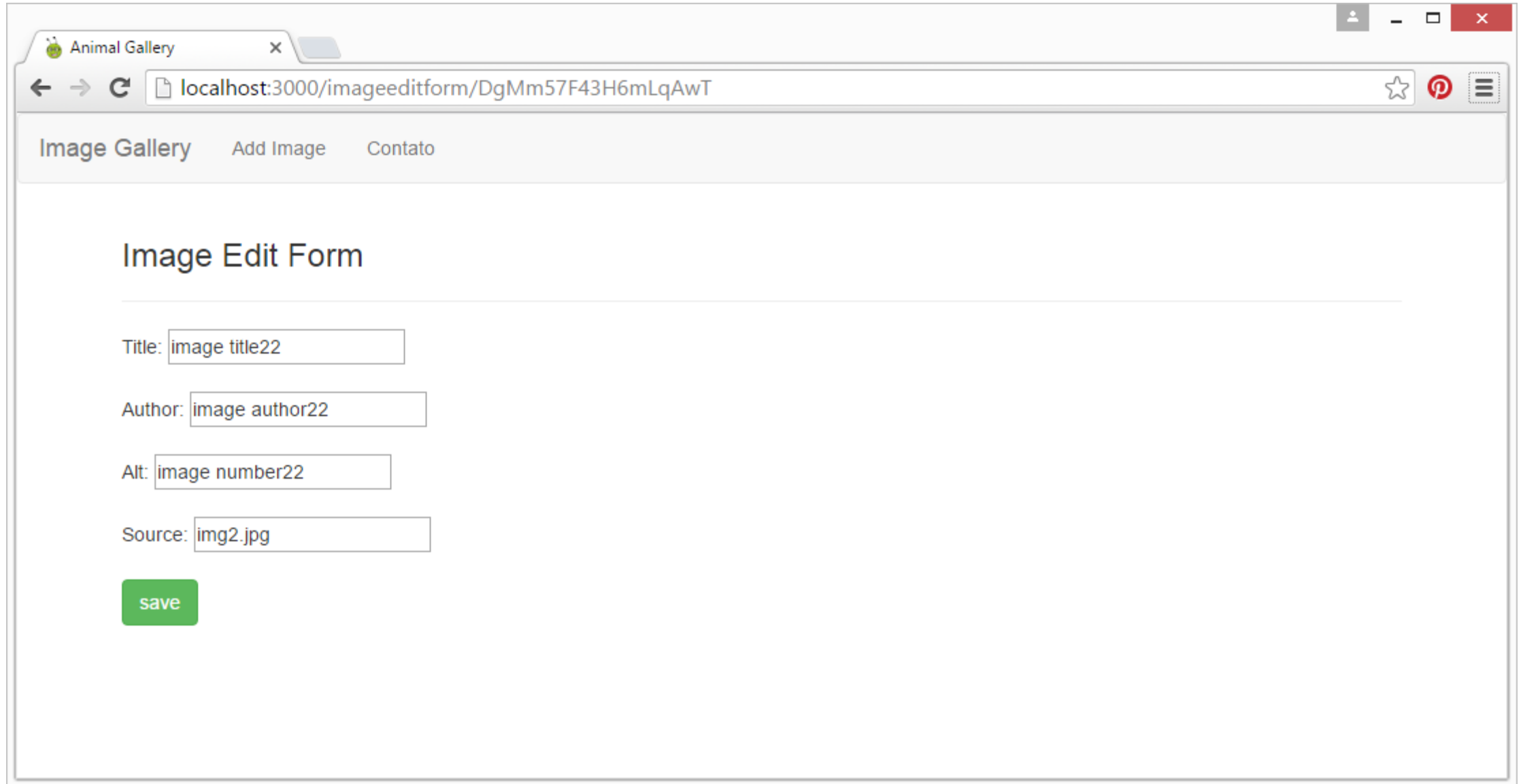


image title4

Info + Edit Delete



Animal Gallery x

localhost:3000

Image Gallery Add Image Contato








image title3










image title4










image title5



ROUTER

HTML Templates

ImageList
(js-del-image, js-view-image, js-edit-image)

ImageAddForm
(js-add-image)

ImageItem

ImageEditForm
(form js-edit-image)

click

click

submit

submit

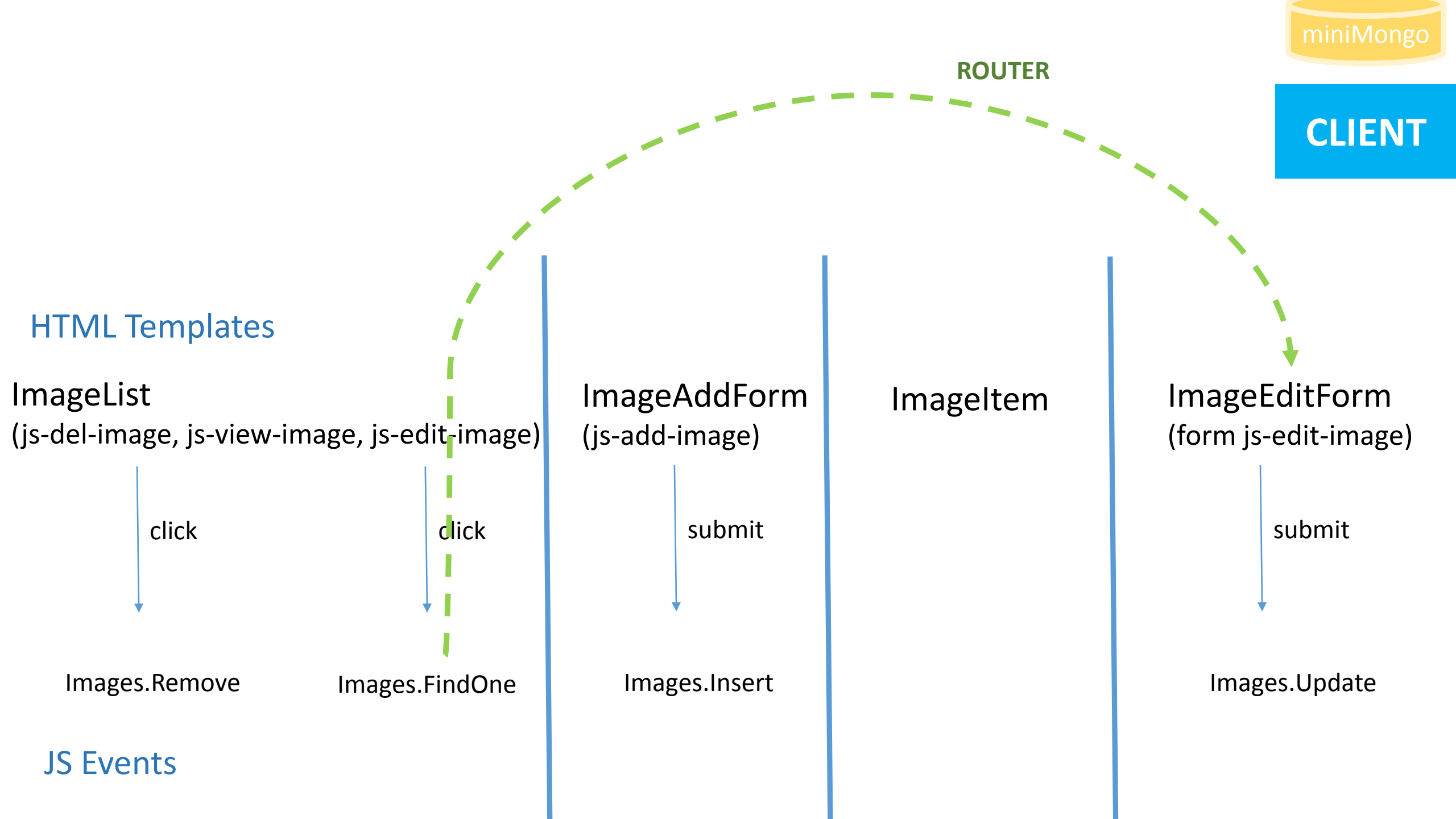
Images.Remove

Images.FindOne

Images.Insert

Images.Update

JS Events



Client/ main.html



```
C:\dev\ex12new\client\main.html • - Sublime Text 2 (UNREGISTERED)
File Edit Selection Find View Goto Tools Project Preferences Help
main.html
1 <head>
2   <title>Animal Gallery</title>
3 </head>
4
5 <template name="ApplicationLayout">
6   {{>yield "header-area"}}
7   {{>yield "main-area"}}
8 </template>
9
Line 17, Column 14 Tab Size: 4 HTML
```

```
main.html
  o </template>
  9
  10
  11 <template name="imagelist">
  12 <div class="row">
  13   {{#each images}}
  14
  15   <div class="col-xs-12 col-md-12">
  16
  17     <!-- adaptar a apresentacao para mostrar cada imagem em uma linha -->
  18     <div class="thumbnail js-light-image" id="{{_id}}">
  19
  20       <div class="caption">
  21          {{img_title}}
  22         <span class="actions">
  23           <button type="button" class="js-view-image btn btn-default"> <span class="glyphicon glyphicon-info-sign"></span> </button>
  24           <button type="button" class="flip btn btn-default"> <span class="glyphicon glyphicon-plus"></span></button>
  25           <button type="button" class="js-edit-image btn btn-default"> <span class="glyphicon glyphicon-pencil"></span> </button>
  26           <button type="button" class="js-del-image btn btn-default"><span class="glyphicon glyphicon-remove"></span></button>
  27         </span>
  28         <div class="panel" id="panel{{_id}}">
  29           <h3> {{img_title}}</h3>
  30           <p> Author: {{img_author}}</p>
  31           <p> Alt: {{img_alt}}</p>
  32         </div>
  33       </div>
  34     </div>
  35   </div> <!-- /col -->
  36
  37 </div> <!-- /row -->
  38
  39   {{/each}}
  40 </div> <!-- /row -->
  41 </template>
  42
```

Client/ main.html Template imagelist

Client/ main.html Template imageaddform

```
C:\dev\ex12new\client\main.html • - Sublime  
File Edit Selection Find View Goto Tools Project Preferences  
main.html  
42  
43  
44 <template name="imageaddform">  
45   <div class="container">  
46     <h3>Image Add Form</h3>  
47     <form class="js-add-image">  
48       Title: <input type="text" name="title"/><br/><br/>  
49       Author: <input type="text" name="author"/> <br/><br/>  
50       Alt: <input type="text" name="alt"/><br/><br/>  
51       Source: <input type="text" name="src"/><br/><br/>  
52       <button type="submit" class="btn btn-success" >save </  
         button>  
53  
54     </form>  
55   </div>  
56 </template>  
57  
58  
Line 11, Column 14  
Tab Size: 4  
HTML
```

Client/ main.html Template imageitem

```
C:\dev\ex12new\client\main.html • - Sublim
File Edit Selection Find View Goto Tools Project Preference
main.html
59 <template name="imageitem">
60
61 <div class="container">
62     <h3>Image Details</h3>
63     <hr>
64     <div class="caption">
65         <p>  </p>
66         <p> Title = {{img_title }}</p>
67         <p> Author = {{img_author }}</p>
68         <p> Alt = {{img_alt }}</p>
69         <a href="/">Back to image list</a>
70     </div>
71 </div>
72
73 </template>
74
```

Line 11, Column 14

Tab Size: 4

HTML

main.html

```
75
76 <template name="imageeditform">
77     <div class="container">
78         <h3> Image Edit Form </h3>
79         <hr>
80         <form class="js-edit-image">
81             Title: <input type="text" name="title" value="{{img_title}}" /><br
82             /><br/>
83             Author: <input type="text" name="author" value="{{img_author}}" />
84             <br/><br/>
85             Alt: <input type="text" name="alt" value="{{img_alt}}" /><br/><br/
86             >
87             Source: <input type="text" name="src" value="{{img_src}}" /><br/><
88             br/>
89             <input type="hidden" name="id" value="{{_id}}">
90             <button type="submit" class="btn btn-success" >save </button>
91
92         </form>
93     </div>
94 </template>
```

Client/ main.html
Template imageeditform

Client/ main.html Template header

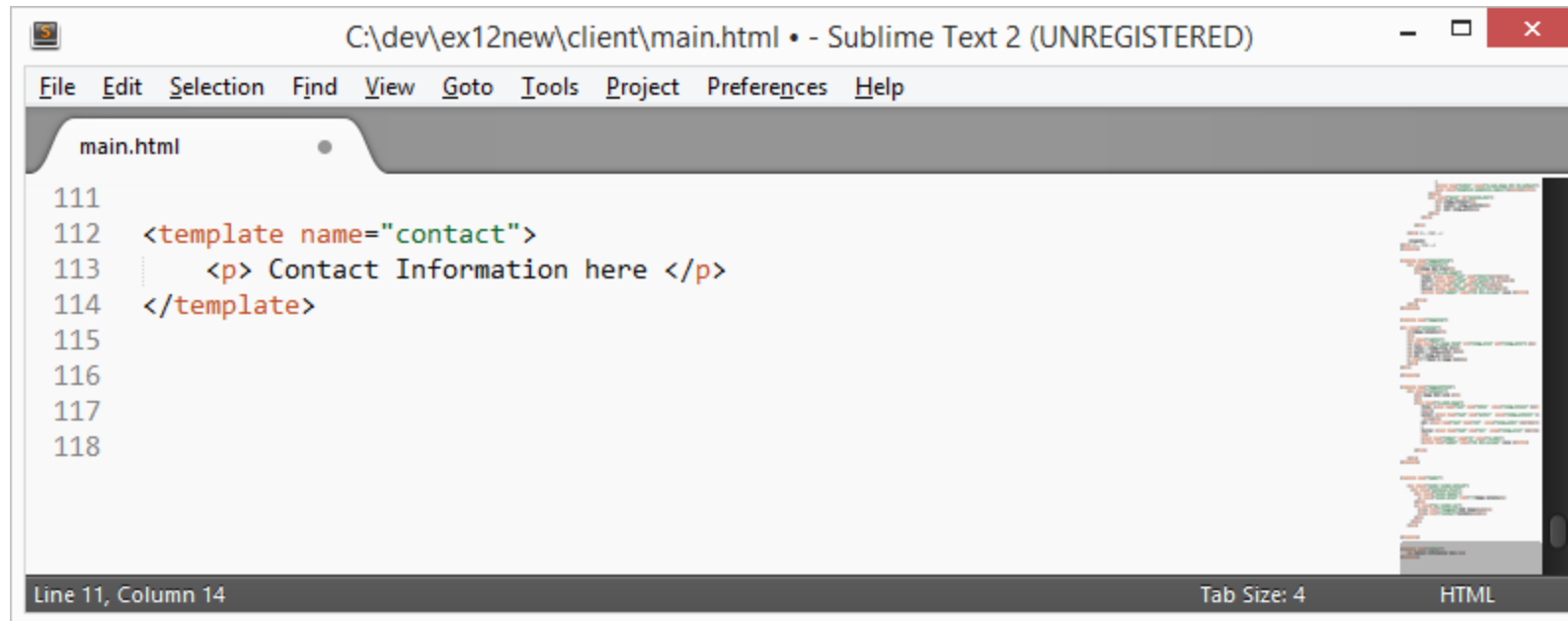


The image shows a code editor window with a tab titled 'main.html'. The editor displays HTML code for a template header. The code is as follows:

```
94 <template name="header">
95
96     <nav class="navbar navbar-default">
97         <div class="container-fluid">
98             <div class="navbar-header">
99                 <a class="navbar-brand" href="/">Image Gallery</a>
100            </div>
101            <ul class="nav navbar-nav">
102                <li><a href="/imageadd">Add Image</a></li>
103                <li><a href="/contact">Contato</a></li>
104            </ul>
105        </div>
106    </nav>
107
108
109 </template>
110
```

The editor interface includes a menu bar with options: File, Edit, Selection, Find, View, Goto, Tools, Project, Preferences, and Help. The status bar at the bottom indicates 'Line 11, Column 14', 'Tab Size: 4', and 'HTML'. A right-hand pane shows a preview of the rendered HTML code.

Client/ main.html Template contact



The image shows a screenshot of the Sublime Text 2 editor window. The title bar indicates the file path is C:\dev\ex12new\client\main.html and the application is Sublime Text 2 (UNREGISTERED). The menu bar includes File, Edit, Selection, Find, View, Goto, Tools, Project, Preferences, and Help. A single tab labeled 'main.html' is open. The editor displays the following HTML code:

```
111
112 <template name="contact">
113     <p> Contact Information here </p>
114 </template>
115
116
117
118
```

The status bar at the bottom shows 'Line 11, Column 14', 'Tab Size: 4', and 'HTML'. A right-hand sidebar is partially visible, showing a file explorer or similar view.

Client/ .js Routing

```

File Edit Selection Find View Goto Tools Project Preferences Help
main.html main.js
187 // *****
188 // Routing
189 Router.configure({
190   layoutTemplate:'ApplicationLayout'
191 });
192
193 Router.route('/', function () {
194   this.render('header',{
195     to:"header-area"
196   });
197   this.render('imagelist',{
198     to:"main-area"
199   });
200 });
201
202 Router.route('/imageadd', function () {
203   this.render('header',{
204     to:"header-area"
205   });
206   this.render('imageaddform',{
207     to:"main-area"
208   });
209 });
210
211 Router.route('/contact', function () {
212   this.render('header',{
213     to:"header-area"
214   });
215   this.render('contact',{
216     to:"main-area"
217   });
218 });
219
220
221 Router.route('/image/:_id', function () {
222   this.render('header',{
223     to:"header-area"
224   });
225   this.render('imageitem',{
226     to:"main-area",
227     data:function(){
228       return Images.findOne({_id:this.params._id});
229     }
230   });
231 });
232

```

C:\dev\ex12new\client\main.js - Sublime Text 2 (UNREGISTERED)

```

File Edit Selection Find View Goto Tools Project Preferences Help
main.html main.js
232
233
234 Router.route('/imageeditform/:_id', function () {
235   this.render('header',{
236     to:"header-area"
237   });
238   this.render('imageeditform',{
239     to:"main-area",
240     data:function(){
241       return Images.findOne({_id:this.params._id});
242     }
243   });
244 });
245

```

Line 232, Column 1 Spaces: 2 JavaScript

```
1
2 // Helpers Imagemlist - mostrando as imagens de acordo com a ordem de cadastro
3 Template.imagemlist.helpers({
4     | | | | | images:Images.find(
5     | | | | |   | | | | | {},{sort:{createdOn:-1}}
6     | | | | |   | | | | | )});
7
8
9 // Treating events - template imagemlist
10 Template.imagemlist.events({
11
12     'click .js-image':function(event){
13
14         var image_id = this._id;
15         var image_src = this.img_src;
16         console.log("You clicked on image " + image_id + " - " + image_src);
17     },
18
19     'click .js-del-image':function(event){
20
21         var image_id = this._id;
22         var image_src = this.img_src;
23         console.log("You deleted the image " +image_id + " - " + image_src);
24
25         //delete
26         Images.remove({"_id":image_id});
27
28     },
29
30     'click .js-view-image':function(event){
31
32         var image_id = this._id;
33
34         console.log("view image detail, id image: " + image_id);
35         Router.go('/image/'+ image_id);
36         return false;
37
38     },
39
40
```

Client/ .js Imagemlist - events

Client/ .js Imagelist - events



```
C:\dev\ex12new\client\main.js • - Sublime Text 2 (UNR...
File Edit Selection Find View Goto Tools Project Preferences Help
main.html main.js
40
41 |
42
43 // Edit a image
44 'click .js-edit-image':function(event){
45
46     var image_id = this._id;
47
48     console.log("edit image detail, id image: " + image_id);
49     Router.go('/imageeditform/'+image_id);
50     return false;
51 },
52
53
Line 41, Column 1 Spaces: 2 JavaScript
```

main.html

main.js

```
93 // Treating events - template imageaddform
94 Template.imageaddform.events({
95
96   'submit .js-add-image':function(event){
97
98     //problem though since our page still refreshes whenever the form is submit
99     event.preventDefault();
100
101     var image_title;
102     var image_author;
103     var image_alt;
104     var image_id = this.id;
105     var image_src = this.img_src;
106
107     image_title = event.target.title.value;
108     image_author = event.target.author.value;
109     image_alt = event.target.alt.value;
110     image_src = event.target.src.value;
111
112     // validate form field
113     if(!image_title)
114     {
115
116       alert("You have to inform the title");
117       Router.go('/imageadd');
118       return false;
119
120     }
121
122     console.log("Adding Image - title: "+image_title + " author: "+image_author+ " source: "
123     +image_src+ " alt: "+image_alt);
124
125     Images.insert({
126       img_title:image_title,
127       img_author:image_author,
128       img_alt:image_alt,
129       img_src:image_src,
130       createdOn: new Date()
131     });
132
133     console.log("Success ! Add Image - Title: "+image_title+" Author:"
134     +image_author + " Source:"+image_src + ".");
135
136     Router.go('/');
137     return false;
138 }
```

Client/ .js Imageaddform - events

main.html


main.js

```
144 // Treating events - template image_edit_form
145 Template.imageeditform.events({
146
147     'submit .js-edit-image':function(event){
148
149         var image_id;
150         var image_title;
151         var image_alt;
152         var image_author;
153         var image_src;
154
155         image_id = event.target.id.value;
156         image_title = event.target.title.value;
157         image_author = event.target.author.value;
158         image_alt = event.target.alt.value;
159         image_src = event.target.src.value;
160
161
162         console.log("Edit Image - title: "+image_title+" author:"+image_author);
163
164         Images.update({_id:image_id},
165             {img_title: image_title, img_author:image_author, img_alt:image_alt, img_src:image_src});
166
167
168         alert("Success ! Edit Image - Title: "+image_title+" Author:"+image_author + ".");
169
170         Router.go('/');
171         return false;
172
173     }
174
175 }) // end template.imageeditform.events
176
```

Client/ .js Imageeditform - events

Image Gallery Add Image Contato

Keyword:

 image title1

```
Elements Console Sources Network Timeline >>
top Preserve log
Filter  Regex  Hide network messages
All Errors Warnings Info Logs Debug Handled
search image with keyword: 222 main.js:89
Session estah setado com 222 main.js:16
Search String /222/ main.js:17
> Images.find({title:/image/})
< L...n.Cursor {collection: LocalCollection, sorter: null,
  matcher: M...o.Matcher, _selectorId: undefined, skip:
  undefined...}
  _projectionFn: function (obj)
    _selectorId: undefined
    _transform: null
  collection: LocalCollection
    _docs: LocalCollection._IdMap
      _idParse: function (id)
      _idStringify: function (id)
      _map: Object
        Ao4Xunn4hDThKevNm: Object
          _id: "Ao4Xunn4hDThKevNm"
          img_alt: "image number2"
          img_author: "image author2"
          img_src: "img2.jpg"
          img_title: "image title2"
          __proto__: Object
        DhhYTFxvuvfzkZscs: Object
        bFhZawCd3QBWoveX2: Object
        eX8Nb9dck8EjyqJgr: Object
        o9un9T9bdEP8Jv4qZ: Object
        oPFu8NktiZyZRxaEK: Object
        roQwLCstSDxC6Q2RE: Object
        wPgEzRje7J7sWztCT: Object
        ...: Object
```