Computer Science
Web Application Engineering — August 2013

Google Maps in Rails

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Instruction :
1. Create a new Rail application "gmapsapp"

$ rails new gmapsapp
$ cd gmapsapp

2. Create a "User"resource scaffolding

$ rails g scaffold User latitude:float longitude:float
address:string description:text title:string
$ rake db:migrate

3. Add the following line to your gemfile then run bundle install

    gem 'geocoder'

4. Add the following code to your routes.rb

```
    Gmapsapp::Application.routes.draw do

        resources :users
        root 'users#index'
    end
```

5. Run the server

$ rails server

6. Add the following code to your user.rb

```
    class User < ActiveRecord::Base
        geocoded_by :address
        after_validation :geocode
    end
```

7. Open your browser and access localhost:3000 and at the form
click new user, then fill the form

Picture 1. Form

8. Add the following line to your gemfile then run bundle install

`$ gem 'gmaps4rails'`

9. Add the following code to your index.html.rb

```
<script src="//maps.google.com/maps/api/js?v=3.13&amp;sensor=false&amp;libraries=geometry" type="text/javascript"></script>
<script src='//google-maps-utility-library-v3.googlecode.com/svn/tags/markerclustererplus/2.0.14/src/markerclusterer_packed.js' type='text/javascript'></script>
<script src='//google-maps-utility-library-v3.googlecode.com/svn/trunk/richmarker/src/richmarker-compiled.js' type='text/javascript'></script>

<h1>Listing users</h1>

<table>
  <thead>
    <tr>
      <th>Latitude</th>
      <th>Longitude</th>
      <th>Address</th>
      <th>Description</th>
      <th>Title</th>
      <th></th>
      <th></th>
      <th></th>
    </tr>
  </thead>
  <tbody>
    <% @users.each do |user| %>
```

```erb
    <tr>
      <td><%= user.latitude %></td>
      <td><%= user.longitude %></td>
      <td><%= user.address %></td>
      <td><%= user.description %></td>
      <td><%= user.title %></td>
      <td><%= link_to 'Show', user %></td>
      <td><%= link_to 'Edit', edit_user_path(user) %></td>
      <td><%= link_to 'Destroy', user, method: :delete, data: { confirm: 'Are you sure?' } %></td>
    </tr>
  <% end %>
  </tbody>
</table>

<br>
<%= link_to 'New User', new_user_path %>
<div style='width: 800px;'>
  <div id="map" style='width: 800px; height: 400px;'></div>
</div>
```

10. We need to require underscore.js too, see at: underscorejs.org/ and choose production Version (1.5.2) then copy to vendor/assets/javascripts/underscore.js

11. Add this on your app/assets/javascript/application.js:

```
//= require jquery
//= require jquery_ujs
//= require turbolinks
//= require_tree .
//= require underscore
//= require gmaps/google
```

12. Add this following code to index.html.rb to create your map:

```html
<script src="//maps.google.com/maps/api/js?v=3.13&amp;sensor=false&amp;libraries=geometry" type="text/javascript"></script>
<script src='//google-maps-utility-library-v3.googlecode.com/svn/tags/markerclustererplus/2.0.14/src/markerclusterer_packed.js' type='text/javascript'></script>
<script src='//google-maps-utility-library-v3.googlecode.com/svn/trunk/richmarker/src/richmarker-compiled.js' type='text/javascript'></script>
<h1>Listing users</h1>
<table>
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```erb
      <th>Address</th>
      <th>Description</th>
      <th>Title</th>
      <th></th>
      <th></th>
      <th></th>
    </tr>
  </thead>
  <tbody>
    <% @users.each do |user| %>
      <tr>
        <td><%= user.latitude %></td>
        <td><%= user.longitude %></td>
        <td><%= user.address %></td>
        <td><%= user.description %></td>
        <td><%= user.title %></td>
        <td><%= link_to 'Show', user %></td>
        <td><%= link_to 'Edit', edit_user_path(user) %></td>
        <td><%= link_to 'Destroy', user, method: :delete, data: { confirm: 'Are you sure?' } %></td>
      </tr>
    <% end %>
  </tbody>
</table>
<br>
<%= link_to 'New User', new_user_path %>
<div style='width: 800px;'>
  <div id="map" style='width: 800px; height: 400px;'></div>
</div>

<script type="text/javascript">
handler = Gmaps.build('Google');

handler.buildMap({ provider: {}, internal: {id: 'map'}}, function(){

  markers = handler.addMarkers([
    {
      "lat": 0,
      "lng": 0,
      "picture": {
        "url": "https://addons.cdn.mozilla.net/img/uploads/addon_icons/13/13028-64.png",
        "width":  36,
        "height": 36
      },
      "infowindow": "hello!"
    }
  ]);
  handler.bounds.extendWith(markers);
  handler.fitMapToBounds();
})

</script>
```

13. Add this following code to users_controller.rb

```
@users = User.all

@hash = Gmaps4rails.build_markers(@users) do |user, marker|
  marker.lat user.latitude
  marker.lng user.longitude
end
```

14. Change the code in index.html.rb

```
markers = handler.addMarkers([
  {
    "lat": 0,
    "lng": 0,
    "picture": {
     "url": "https://addons.cdn.mozilla.net/img/uploads/addon_icons/13/13028-64.png",
     "width":  36,
     "height": 36
    },
    "infowindow": "hello!"
  }
]);
```
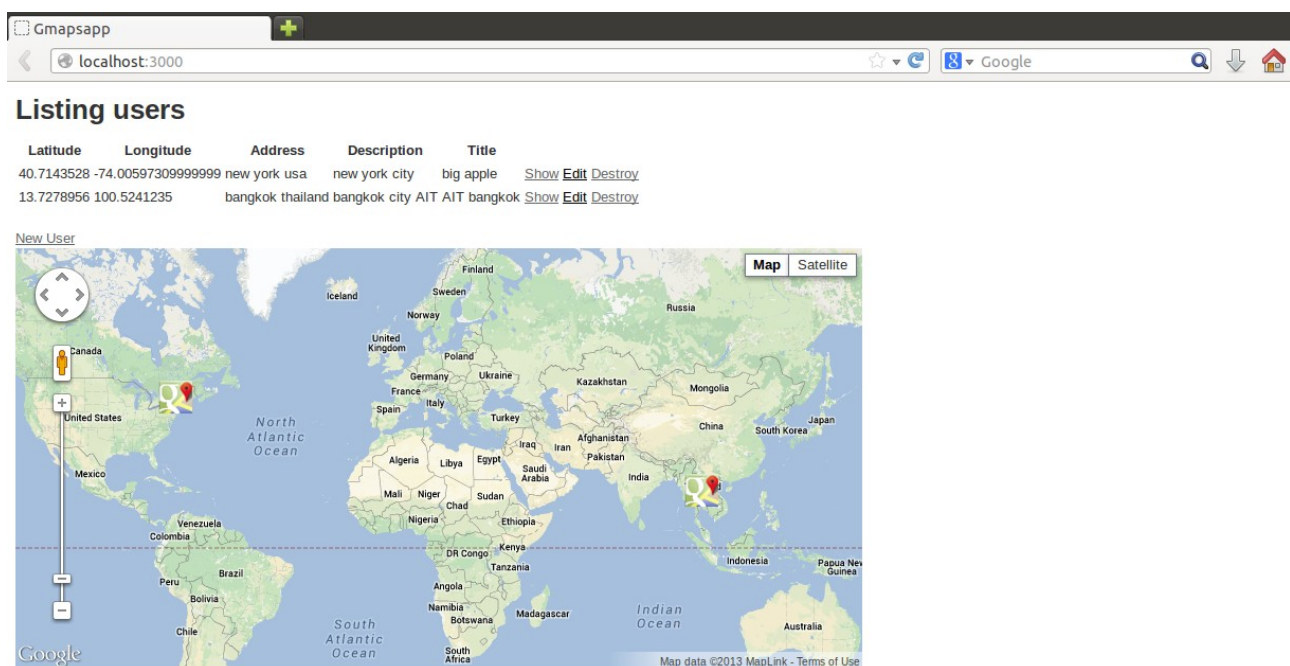
with

```
markers = handler.addMarkers(<%=raw @hash.to_json %>);
```

15. Add this following code to users_controller.rb

```
marker.infowindow user.description
  marker.picture({
        "url" =>
"https://addons.cdn.mozilla.net/img/uploads/addon_icons/13/13028-
64.png",
        "width" =>  32,
        "height" => 32})
  marker.json({ title: user.title })
```

And google maps are ready to use.

Picture 2. Google Maps in rails

Source :

http://www.youtube.com/watch?v=R0l-7en3dUw
https://github.com/apneadiving/Google-Maps-for-Rails/wiki/json-builder
https://github.com/apneadiving/Google-Maps-for-Rails
https://github.com/apneadiving/Google-Maps-for-Rails/wiki/Change-handler-behavior