

Affectv Front-End Exercise

What to do?

We want to build a "Ad HTML Generator". This AngularJS app will consist of a single screen containing a set of configurable values related to CSS styles.

After choosing the desired values and pressing the Submit button, this app should dynamically build and display the HTML code for a fixed size [Web Banner](#) (Ad), using the specified color values, together with some product information obtained from an JSON feed.

The Ad HTML Generator App

Please note this AngularJS app can be enhanced using any additional framework/library you can consider particularly useful.

The screenshot shows a web browser window with the address bar at `http://localhost:8080`. The page title is "Dynamic Ad Creator". The interface is divided into two main sections: "Properties:" on the left and "Preview:" on the right. The "Properties:" section contains two sub-sections: "Product Info Box:" and "Link Button:". Each sub-section has two input fields: "Background Color:" and "Text Color:", both labeled "Text". At the bottom of the "Properties:" section is a button labeled "Get Product Feed and Generate Ad". The "Preview:" section shows a large rectangular box with the dimensions "300x250" in the center. Below the "Preview:" section is a section labeled "HTML:" with a large empty rectangular box for displaying the generated HTML code.

User will put the values on the Input boxes, specifying some colors for the Ad (e.g. `#0066cc` , or `blue`)

After pressing the "Get Product Feed and Generate Ad" button:

1. The app will obtain a Product Feed data from `/api/products.json`
2. The app will generate the HTML code for the Ad using:
 - The product information obtained in the previous step.
 - The CSS properties from the form.
3. The app will display the generated HTML code on the right-side **HTML** section (as text).
4. The app will display the Ad on the right-side **Preview** section. (e.g. using an directive/iframe)

The left-hand controls (properties):

- Styles for the "Product Info Box":
 - Two `input` boxes, for CSS `background-color` and `color` properties.
 - This will control the colors for the "Product Info Box" section of the Ad. User will put there CSS color property values. (e.g. `#0066cc`)
- Styles for the "Link Button":
 - Two `input` boxes, for CSS `background-color` and `color` properties.
 - This will control the colors for the "Link Button" section of the Ad. User will put there CSS color property values. (e.g. `#0066cc`)
- "Get Product Feed and Generate Ad"
 - A `submit` button
 - It will execute the process.

The Generated Ad

The 'output' for the Ad should consist in a **full HTML page containing inline JS/CSS** code. This Ad HTML should **not** request any external libraries, files or make any AJAX calls.

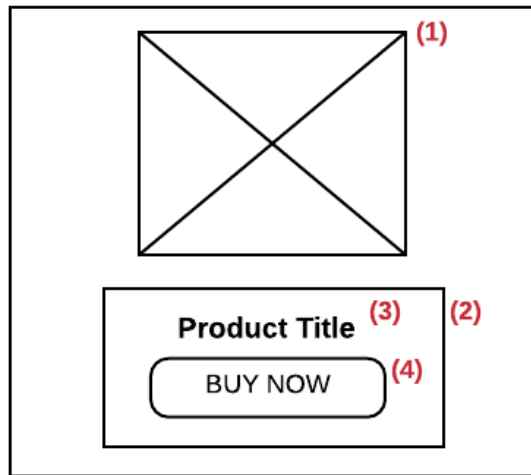
The design we propose for the Ad would be a basic layout consisting in a white background, a centred image on top, and a centred box on the bottom, including the name of the product and a 'Buy Now' link.

About the behaviour of the Ad, we propose you different alternatives. Please **implement at least one** of the two options below (or feel free to create a new one!)

The **first** option will be to build a basic version of an ad. This ad must show just the **first** product obtained from the JSON response.

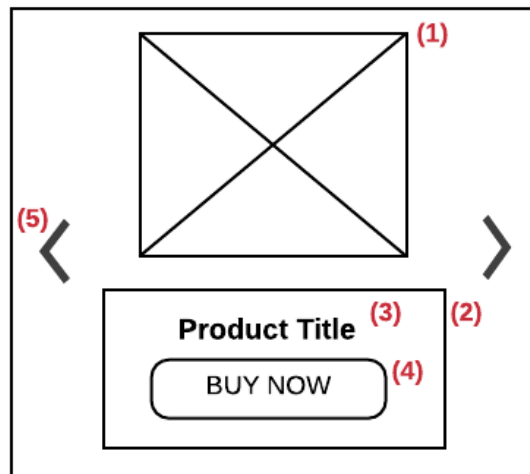
The **second** option shares the same layout, but now including a basic **slider** for navigating thorough all the products. This will be controlled with two arrow buttons (left and right).

Option A



- (1) Product Image
- (2) Product info box
- (3) Product Title
- (4) Link Button
- (5) 'Slider' Arrows

Option B



- (1) Product Image
- (2) Product info box
- (3) Product Title
- (4) Link Button
- (5) 'Slider' Arrows

- **Product Image:** Product image from `JSON > data > products > img` .
- **Product Info Box:** Area that will contain the product information. Background and text colors configurable by the app.
- **Product Title:** Name of the product. (`JSON > data > products > name`).
- **Link Button:** Link with a button look-and-feel that will point to (`JSON > data > products > link`). Background and text colors configurable by the app.

The proposed size for the Ad is 300x250.

The HTML code for the Generated Ad

As mentioned before, the Ad should consist in a full HTML unit (containing all basic html, body, header, script... tags). All JavaScript and CSS code must be embedded inside this HTML.

Example of the resulting HTML:

```
<!DOCTYPE html>
<html>
  <head lang="en">
    <meta charset="UTF-8">
    <title></title>
    <style>
      html,
      body {
        background-color: #fff;
        height: 100%;
        margin: 0;
        padding: 0;
      }
      ...
    </style>
  </head>
  <body>
    ...
    <script type="application/javascript">
      ...
    </script>
  </body>
</html>
```

This base project

This base project consists in a basic set of files for an AngularJS application, that can be served using the `gulp` default task which will run a basic webserver under `http://localhost:8080` .

Please remember to execute the `npm install` command first, in order to install any required dependencies.

The entry point of this app would be the `index.html` file on the root folder.

Directory layout

```
/api/      --> Simulates the API server from we were going to obtain all product data.
/css/
/img/
/js/
gulpfile.js
package.json
index.html
```

Please feel free to modify **any** of the files of this exercise.

Technical requirements and notes

- The app should work in a modern Chrome browser.
- Please feel free to include/change/reuse/invent any other framework/library/piece-of-code you think will be useful for those purposes.
- BONUS (in no special order): Testing, NodeJS version of the API, Improved Ad design, Improved App UI design, More CSS controls, Improved build tasks, JS/CSS preprocessing, CSS animations, Multiple Ad-Designs....