# **Block 2 Challenge**

The **Block 2 Challenge** provides some high-level detail about the proposal. The proposal is designed to force you to think it through.

* What will your pages look like?
* What events do you need to react to?
* Will you use a third-party API?
* Will you need LocalStorage and how would it be used?
* How might you use CSS – Transitions/Transformations/Animations?

This is the *Spiritual Creation* prior to the *Physical* *Creation*. If this step is skipped, then students enter the application development unprepared. They flounder because there is no road map. You are providing me with your roadmap. If you do the mental preparation (Spiritual Creation), the development of code (Physical Creation) will be significantly easier. If it is settled in your mind the rest is much easier. Almost anything will work ([Cups and Ice](https://www.bing.com/videos/search?q=cups+and+ice&view=detail&mid=18D06C898AF7DA6C82F318D06C898AF7DA6C82F3&FORM=VIRE)). As long as you invest time in the details.

* Do some simple wire frames to expose the user interface layout. This will help you determine the user experience, what the user will see, what data is expected and maybe some ideas for CSS usage will begin to develop and along with the needed events.
* If you are using LocalStorage, describe what will be saved, when it will be saved and when it will be retrieved.
* 3rd party API. What data do you expect to use? What gets persisted to LocalStorage?
* Describe the general ‘flow’ of the user experience. Think about how the user will interact.

This assignment is worth 1 point. So, it won’t affect your grade. However, skipping this assignment will affect your final project, which is 51% of your grade. You will have missed out on the thinking and pondering stage that will provide your foundation for development.

# Project Scoring

Note that these percentages add to over 100% That way if you are weak in one area. You can put some muscle in to another area. JS and APIs carry a LOT of weight, for good reason.

## **Meaningful usage of the following topics**

### **35%  Third party APIs**

More than a wimpy Chuck Norris API is not going to cut it ([https://api.chucknorris.io/jokes/random (Links to an external site.)](https://api.chucknorris.io/jokes/random)). There are MANY great APIs for weather, travel, sports, NASA, movies, music, Anime, search, GPS, maps. Check out [https://rapidapi.com/marketplace (Links to an external site.)](https://rapidapi.com/marketplace). I expect an API should return a good rich JSON result set. Something with an array you can iterate through. Weather for the next 8 days, 10 matching movies, song list for an artist, books from an author, pictures from a Mars rover, sports scores. BTW, if you do this you will also get the points for JSON and it is impossible to do a good job here without some serious JavaScript. APIs+JavaScript+JSON and you already have 80% of the points!!

### **35%  JavaScript**

I expect some honest logic going on here. Validating the screen data, looping through an array of JSON data to display to the screen, creating and using events, changing element styles with JS, changing element classes to use different CSS rules.

### **25%  CSS**

Use Transforms to round the edges of your input fields, add shadows. Use Transitions to enlarge an input field on focus, and shrink it on blur, wiggle an input field when bad data is entered. Add borders. Don’t go overboard. CSS should subtly add style to a page, not whack you over the head.

### **20%  JSON**

JSON is the lingua franca of our time. Don’t use it at your peril.

### **15%  Events**

Use events to enhance the user experience; increase the size of the input field on focus or add a shadow. React to a button click. Initialized the page with data once the onload event triggers.

If you have CSS rules for pseudo-state-selectors (hover, focus, checked, after, before) I’ll recognize these as events as well.

### **10%  LocalStorage**

LS is a nice to have. By design it is local to current device. It is not available as you move around from phone, to tablet, to laptop. But it is nice to know how to implement. It can add value to an app to remember the user from their last visit. Not a lot of points but easy to add to an app.