Week 9 – Time to be ~~thinking about~~ working on your project

* A Word of Encouragement
* JavaScript Events
* Block 2 Challenge
* Project Ideas
* Project Scoring!!!

Occasionally a student finds an interesting concise resource on different topics. Erendira found this one last week on Mixed Content. You no doubt have had some trouble with it as you worked with the APIs. It is a fairly brief read. Enjoy. And thanks, Erendira!

<https://web.dev/what-is-mixed-content/>

# A word of encouragement

You have really made some excellent progress this semester. I know many of you have your own challenges, not of your choosing; nonetheless you have created some good examples and shown a lot of creativity. Look at the examples I have shared to get new ideas. If you see something you like copy it and make it your own! Magnify the code. Keep up the good work.

I encourage you also to look at the notes sections for some of your peers. You will see some that take a minimalist route which does them little good when the final project comes along, and they need to go back to their reference material. Others have done an excellent job and will have a great deal to draw upon as they build their application. These notes are for you. I grade them but you’re the one that will benefit from them.

BUT! Going forward you will not get points for turning in only your notes. To show me you understand you need to also share working code. So be aware you will only get your 10s on those assignments if you share a link to working code.

# JavaScript Events

When you learn about events this week do not get trapped in the most basic superficial events (click and mouse over). Explore what is possible. Here is a link to a web page with an extensive list of events. <https://www.w3schools.com/jsref/dom_obj_event.asp>. Now go explore the possibilities.

Here are some examples from previous classes.

|  |  |  |
| --- | --- | --- |
| Events | <https://baldwin-casey.github.io/cit261/week9/javascript_events.html> | Casey Baldwin |
| Events | <https://cboshy.github.io/JavaScript%20Events/JavaScript%20Events.html> | Chris Bollschweiler |
| Events | <https://rikkor.github.io/CIT261/assignment6.html> | Eric Birch |
| Events | <https://allen-zac.github.io/Allen-Zac-Fluency/fluency-code/js-events/javascript-events.html> | Zac Allen |
| Events | <https://domenickcasper.github.io/CIT-261-BYUI/Week%205/JSEvents.html> | Domenick Casper |
| Events | <http://www.studiofuss.com/javascript_events/index.html> | Sterling Wright |
| Events | <https://kentroper.com/cit261/javascript_events.html> | Kent Roper |
| Events | <https://codeunifier.github.io/schoolProject/topics/events/events.html> | Brian Evans |
| Events | <https://immense-headland-29202.herokuapp.com/events/events.html> | Ryan Docstader |
| Events | <https://rikkor.github.io/CIT261/assignment6.html> | Eric Birch |
| Events | <https://allen-zac.github.io/Allen-Zac-Fluency/fluency-code/js-events/javascript-events.html> | Zac Allen |
| Events | <https://hurst-justin.github.io/09-JavascriptEvents/index.html> | Dalan Ienatsch |
| Events | <https://cook-amy.github.io/Assignments/javascriptEvents.html> | Amy Cook |
| Events | <https://olive-spencer.github.io/CIT-261/a9.html> | Olive Spence |
| Events | <https://mooremelissa.github.io/JavaScriptEvents.html> | Melissa Moore |

# 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.

# Project Ideas

I shared these project samples two weeks ago but failed to include the theme of the project. I will repost this list for your reference.

Look at the examples and see what interests you. Primarily you should find something that grabs you. Makes you want to spend way too much time on. That’s what I like to see.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Type of Project | URL | | Author | |
| P - Movie | <https://desolate-plateau-12188.herokuapp.com/> | | C David | |
| P - Weather | <https://devins-weather-app.herokuapp.com/> | | D Cenatiempo | |
| P-Character Generation | <http://cit261.joshuanilsson.com/topics/project-basics.html> | | Joshua Nilsson | |
| P-Flash Cards | <https://greenway-benjamin.github.io/flashcards/flashcards.html> | | Benjamin Greenway | |
| P-Mars Rover | <https://aaroneiche.github.io/cit261/rover.html> | | Aaron Eicke | |
| P-Movies | <https://shrouded-lowlands-62979.herokuapp.com/movie-db.html> | | Timothy Bohman | |
| P-Pong | <https://reed-jason.github.io/projects/tags.html> | | Jason Reed | |
| P-Shopping Cart | <https://homework-website.herokuapp.com/CIT261/ShoppingCart/index.php> | | Ann Halgren | |
| P-Solar System | <https://rpollard.com/cit261/space.html> | | Roger Pollard | |
| P-Stock Quotes | <https://ultra-anger.glitch.me/stock.html> | | Elden Chanler | |
| P-To Do List | | [https://kristinaplauche.github.io/cs261/project.html?#](https://kristinaplauche.github.io/cs261/project.html?) | |
| P-To Do List | <https://zonatto-luiz.github.io/local-storage.html> | | Luiz Zonatto | |
| P-Word Search | [https://immense-head](https://immense-headland-29202.herokuapp.com/project/project.html) | | David Lambert | |
| Project | <https://irwin-cristina.github.io/byucit261.github.io/assignments/CristinaIrwinfinal/contact.html> | | Cristina Irwin | |
| Project | <http://cit261-assignments.herokuapp.com/assignments/final_project/app.html> | | Jake Bassett | |
| Project | <https://pascual-jamie.github.io/PascualJamie.github.io/solarsystem.html#display-response> | | Jamie Pascual | |