

# CSCI 491 - Web Development

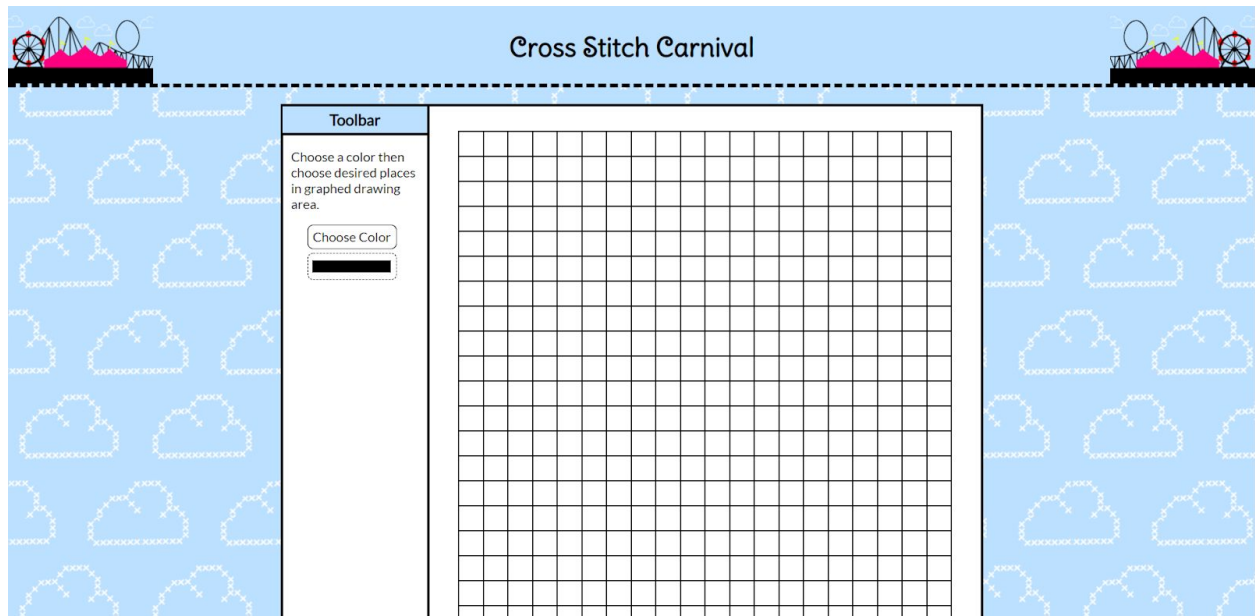
'Cross Stitch Carnival'  
Cross Stitch Solver Website  
Group 13

Aurora Kehoe  
Renee Joyal  
Jessica Jorgenson

## Project Link

Along with this project portfolio pdf, we have included a zip file titled “CSCI491-CrossStichWebsite”. When you unzip the folder, there will be an index.html file. Double click on index.html and our website will open in your local browser.

It will look like the screenshot below:



## Objective

The objective of our project was to create a website where people could customize a graphed drawing to plan a cross stitch pattern without the arduous process of handcrafting the pattern.

This allows users to spend more time cross stitching their project rather than spending a large amount of time painstakingly creating the pattern that they then would have to stitch.

## Summary

Our website allows users to customize their color choices and then fill in the provided graphing area with their desired pattern.

This is done with the built-in HTML5 color input as well as JavaScript manipulation of an HTML table for the drawing area.

There is no current back-end for this project as all of the processing is done in JavaScript with the user interacting with the graph.

## Member Pages

### *Aurora*

I contributed to the project outline and made a wireframe to help us figure out how to format our website. I created the git repository for the project as well as the foundational CSS.

My work included creating the HTML for the website, focusing on the skeleton and the toolbar as well as creating the stage for the drawing area.

I researched tools we could use for the drawing area and, while we did not end up using either of the tools I mainly looked at, it was helpful to find so many options. I looked at if we could use SVG or the HTML5 Canvas. However, the SVG results could not quite do what we wanted with user input and Canvas relied too heavily on scripting instead of user input as well. I was hoping to use Canvas since the resulting image could be saved to the users computer, however, it was not a viable option given how we wanted to use the drawing area.

So, we abandoned those tools and used an HTML table instead as we were able to directly affect changes to the table with user input, which Jessica found.

It was a little frustrating to get the toolbar and drawing area to line up completely so I spent a lot of time manipulating sizing, padding, and borders in CSS but I am proud of the final result.

A few logs from my branch on our Github project are below, I spent a lot of time dealing with merge conflicts in our branches so there are many commits from other branches, but we were able to figure them out.

Branch: **auroraBranch** ▾

Commits on Nov 22, 2019

|                                                                                                                     |                                                                                                      |                                                                                       |
|---------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| <b>Combine new CSS and javascript</b><br>aukehoe committed 3 days ago                                               |  629355e          |    |
| <b>Make table float right, delete bug picture</b><br>aukehoe committed 3 days ago                                   |  774fe15          |    |
| <b>Merge branch 'master' of https://github.com/aukehoe/CSCI491-CrossStic...</b> ...<br>aukehoe committed 3 days ago |  b569c84          |    |
| <b>Delete WebsitePlan.txt</b> ...<br>aukehoe committed 3 days ago                                                   | Verified  15799aa |    |
| <b>Add clouds</b><br>reneejoyal committed 4 days ago                                                                |  9248433          |    |
| <b>Make header flex</b><br>reneejoyal committed 4 days ago                                                          |  7edbea1          |    |
| <b>Add footer and rename 'contentArea' div to 'canvasArea'</b><br>reneejoyal committed 4 days ago                   |  b6eeca7          |    |
| <b>Updated css to match changes</b><br>reneejoyal committed 4 days ago                                              |  cc9385c          |    |
| <b>Updated javascript to match changes</b><br>reneejoyal committed 4 days ago                                       |  d7df901          |    |
| <b>Incorporate new javascript and css</b><br>aukehoe committed 4 days ago                                           |  0ed07b1        |  |

Commits on Nov 21, 2019

|                                                                                                                        |                                                                                               |                                                                                       |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| <b>Add header div and banner images to html. Edit css to have new fonts ...</b> ...<br>reneejoyal committed 4 days ago |  725b4eb |  |
| <b>Add images folder with banner images</b><br>reneejoyal committed 4 days ago                                         |  d724806 |  |
| <b>update button spacing</b><br>aukehoe committed 4 days ago                                                           |  6187595 |  |
| <b>Proper grid code</b><br>jessica-jorgenson committed 4 days ago                                                      |  0620e66 |  |
| <b>Add height and width input fields and clean up some css</b><br>aukehoe committed 4 days ago                         |  9cc6987 |  |
| <b>Finally got it working</b><br>jessica-jorgenson committed 5 days ago                                                |  a2f8795 |  |

## Renee

I came up with the idea of the cross stitch maker website. I am the only person in the group that cross stitches, so I was responsible for making sure the website was useful from a cross stitcher's perspective. I also contributed to the project outline.

My main responsibility for this project was the design of the website and writing all the CSS. I changed all the fonts and colors to create a uniform style. I also created all of the graphics shown on the website.

One of my main goals was to make sure the website looked good at a variety of different window sizes. To do this, I made the header a flex box. The banner images and website title stay an equal distance from each other no matter the window size.

Below is a log of all the commits I made to my branch of the GitHub repository:

|                                                                                                             |                                                                                               |                                                                                       |
|-------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Branch: Renee ▾                                                                                             |                                                                                               |                                                                                       |
| Commits on Nov 22, 2019                                                                                     |                                                                                               |                                                                                       |
| Final changes before presentation<br>reneejoyal committed 3 days ago                                        |  73e004b |  |
| Add clouds<br>reneejoyal committed 4 days ago                                                               |  9248433 |  |
| Make header flex<br>reneejoyal committed 4 days ago                                                         |  7edbea1 |  |
| Add footer and rename 'contentArea' div to 'canvasArea'<br>reneejoyal committed 4 days ago                  |  b6eeca7 |  |
| Updated css to match changes<br>reneejoyal committed 4 days ago                                             |  cc9385c |  |
| Updated javascript to match changes<br>reneejoyal committed 4 days ago                                      |  d7df901 |  |
| Commits on Nov 21, 2019                                                                                     |                                                                                               |                                                                                       |
| Add header div and banner images to html. Edit css to have new fonts ...<br>reneejoyal committed 4 days ago |  725b4eb |  |
| Add images folder with banner images<br>reneejoyal committed 4 days ago                                     |  d724806 |  |

## Jessica

I focused on getting the JavaScript to work how we wanted it. Seeing how user interaction and HTML Canvas/SVG cooperated was complicated and confusing for our purposes, so I looked around for an easier method.

I decided to use some JavaScript for loops, which added event listeners to each table cell. I also added some JavaScript so clicking on the table cells would change to the color specified in the color picker.

I changed some of the HTML to work with my JavaScript, as well as some CSS so the grid would be centered properly.

Below are my GitHub Repo logs to my branch:

Branch: Jessica ▾

Commits on Nov 22, 2019

Get rid of comments

 jessica-jorgenson committed 3 days ago

 5919f8b 

Commits on Nov 21, 2019

Proper grid code

 jessica-jorgenson committed 4 days ago

 0620e66 

Finally got it working

 jessica-jorgenson committed 5 days ago

 a2f8795 

Commits on Nov 20, 2019

Changed from canvas to table

 jessica-jorgenson committed 5 days ago

 6dcff51 

Adding code, changing positioning

 jessica-jorgenson committed 5 days ago

 a429c88 

Fix closing tag for button in toolbar

 aukehoe committed 5 days ago

 09b8fa2 

Update README.md

 jessica-jorgenson committed 5 days ago

Verified  650c3d2 

## Conclusion

What we learned:

- We learned to research different tools for the desired functionality. It is better to take a little time to plan out the desired function of the project than to start immediately and wrestle with a tool that ends up not working with the website (i.e. Canvas not working for us).

What worked for our project:

- We are glad the HTML table worked how we wanted it to. However, we underestimated how much time it would take to experiment with possible tools we could use.

What we would do differently:

- If we were to start again, we would start a little earlier to allow time for development of a user system so that users could save designs and use those designs later rather than having to screenshot the website
- We would like to implement an 'undo' function.
- A possible stretch goal would be to share designs among users and create a messaging system for that purpose.
- We would like to add a system so that once the user is ready to save an image, there are choices to save with symbols that correspond to the colors chosen so that the pattern can be saved in black and white, rather than relying on color.

What we would keep:

- The layout and the design of the website matches what our original goal was and we are proud of the outcome.
- We would keep the HTML table with JavaScript manipulation as it successfully does what we wanted it to in taking in the user's input and changing the grid to the customized color.

## References

*CSS Tutorial*, <https://www.w3schools.com/css/default.asp>.

“EventTarget.addEventListener().” *MDN Web Docs*, 18 Nov. 2019,  
<https://developer.mozilla.org/en-US/docs/Web/API/EventTarget/addEventListener>  
r

*HTML Tutorial*, <https://www.w3schools.com/html/default.asp>.

*JavaScript Tutorial*, <https://www.w3schools.com/js/default.asp>.