# Project Write-Up

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### CPSC 5700 – Computer Graphics

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## Summary

We created a web application to create and display wallpaper patterns based on the seventeen plane symmetry groups. Our successes included writing the app in HTML and TypeScript to run in the browser, creating seventeen WebGL shaders to display of each of the wallpaper groups within the app, and using the dat.gui library to implement a user interface that allows users to select a wallpaper group, modify various parameters, take image screenshots, and save app settings. We failed to implement the functionality of uploading an image file that the wallpaper colors would be selected from as we had originally planned. Two other minor failures were in controlling the scale/zoom feature using mouse scrolling, and getting the save and load feature for app settings to function consistently. We didn’t encounter any major surprises in the project.

## Individual Contributions

Yevgeni:

* Project idea and planning
* Initial shader functionality (team effort)
* All HTML code
* Majority of user interface and core app development

Kelly

* Replicated and extended initial shader to create and display each of the 17 wallpaper patterns (one shader per pattern)
* Added several features to user interface (mostly later modified and improved by Yevgeni)
* Added functionality for Display Settings (team effort)

## Screen Shots



