

# Project 10

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Cs151

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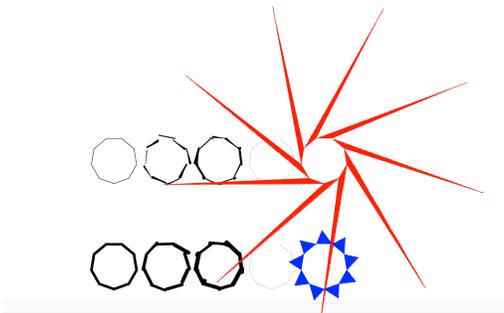
## Project 10

### Abstract:

The purpose of this project was to learn how to modify turtle commands and therefore the objects themselves. This manifested itself as 'styles' as we refer to them. I used these styles to modify shapes and scenes from the previous project. Finally, I created my own L-system.

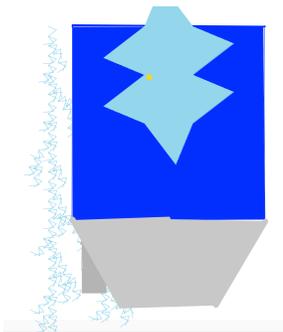
### Required Image #1:

This was used to test the styles; by using objects from the previous project I was able to create and compare the styles side by side.



### Required Image #2:

This task essentially just asked me to apply the required styles into my scene to my home scene from last week. I applied some of my own as well.



### Required image #3:

This part of the project was a little different from the rest of the project. It was a review to L-systems. Here I created a L-system tree that droops

down like a weeping willow. I also created a second L-system as an extension. This one was not meant to look like a tree but rather create an interesting shape



#### Reflection:

The largest part of this project was creating the styles themselves. I did this by creating multiple values for (x,y) coordinates. For example, if you were to only use the coordinates in the shapes the modification values would build up and create an incomplete shape. By implementing multiple coordinates I was able to set the mod values relative to the original (x,y) coordinates and change them with each individual movement. Implementing this in task two was easy: I just had to set the style for each individual object in my home.py scene, imported from the previous project. To make my L-system for the final task I had to do a lot of trial and error to get the 'gravity' results that I wanted.

#### Extensions:

- Created not one but two extra modification styles
- Created a 'weeping willow' tree that acts as if gravity affects it.
- Extra Lsystem

#### What I learned:

This project allowed me to learn how objects, and even parts of objects, are modified and provided a deeper understanding of modification as a whole. It also allowed me to practice use with L-systems and how they work

#### Citations:

n/a