CS460 Fall 2022
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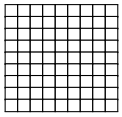
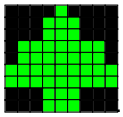
Assignment 2: XTK Cube / Pixel Art

We will create pixel art - and then use XTK to render it in 3D, fully interactive and web-based.

Here is an empty grid of 9x9 pixels: 

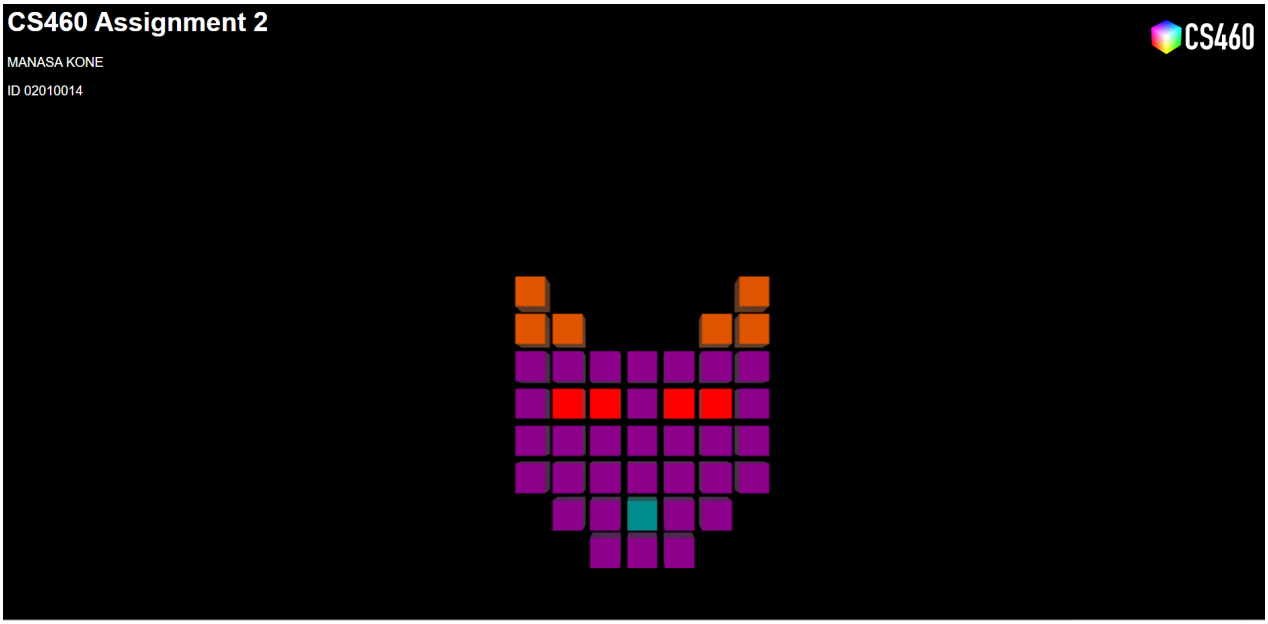
If we set pixels to different colors, we can create pixel art.

Here is a fox.  And here is a pine tree. 

To create 3D pixel art, we can use colored `X.cube` objects instead of pixels.

Please choose one, either the fox or the pine tree, and then create a 3D version using XTK (`http://goXTK.com`). Start with the **index.html** from `https://cs460.org/shortcuts/04/` and save it in directory **02/** in your github fork.

This starter code creates one cube with XTK. For this assignment, you will need to modify the code to create many cubes: one cube for each pixel. Remember, you can set, for example, the color green for a cube `c` using `c.color=[0,1,0]`. Please replace the screenshot below with your version. Also, please commit this PDF and your final code to your Github fork and submit a pull request.



Bonus (33 points):

Question 1 (10 points): If we would not care about the gap between cubes/pixels, how could we reduce the number of X.cube objects in the scene?

To reduce the number of X.cube objects in the scene we can just replace the large number of cubes with the small numbers by changing the dimensions of the cube pixels in the respective area of the scene.For instance, in the above screenshot i have used two cubes for eyes. Instead of using two cubes for the eyes we can use only one cube by adjusting the dimensions same as two cubes.

Question 2 (23 points): Animate the pixel art! We can use the following JavaScript snippet to execute code every second:

```
setInterval(function() {
  // your code
}, 1000);
```

`https://manasa-01.github.io/cs460student/` file.