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CS435/535 Computer Graphics
Spring 2019
Project #6

Blending

Due: Apr. 8 by 11:59 pm

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The project is to investigate how to blend two photos.

Modeling
- Build a room with three walls and a floor, borrow a window photo from Lowe's, Home Depot or another source, and install the window on the middle wall. Build a fake wall behind the middle wall, acquire an outdoor photo shot, and paste it on the fake wall to simulate the environment. The size of the fake wall should be proper (not too large or small) such that the viewer will not notice it existence.

Viewing
- The viewer's position can be fixed, but there are a small matrix of "at" positions on the fake wall such that the part of the outdoor photo that can be seen through the window will change when the "at" position changes.

Interaction
- The four arrow keys (left, right, up and down) will be used to change the "at" position.

Hints: You can use A (Alpha) in RGBA to represent transparency and to perform blending. However, most color images have only RGB channels without an alpha channel. You need to add the alpha channel. To add the alpha channel, you can use expensive software such as Photoshop. If you do not have access to Photoshop, you can use a simple image processing tool such as Microsoft Paint to manually change the transparent part to an uncommon color, referred to as the key color. When the processed image is read by your program, two different alpha values can be assigned to the image based on whether a color is the key color or not.

Create a directory called *project6* under your cs435/cs535 directory. (Make sure the *Common* directory is also located under your cs435/cs535 directory.) Move into that directory, create two files: *blending.html* and *blending.js* for the project, and add the necessary image files.

Submission Requirements:
- Make sure the *project6* directory contain the following files: *blending.html*, *blending.js* and all the necessary image files.
- The title of *blending.html* should contain your name, CS435 (or CS535), Project #6.

- The *blending.js* file should contain the following information at the beginning: CS435 (or CS535), Project #6, your name, a description of the program. Add other necessary comments whenever a part of the code is not obvious.
- Compress the *project6* directory into *project6.zip* and submit the compressed file as an attachment on Blackboard.