

CS4533 Lecture 12

Slides/Notes

Texture Mapping; Shadow Blending in HW4 (b) (Sample Program, Notes)

By Prof. Yi-Jen Chiang
CSE Dept., Tandon School of Engineering
New York University

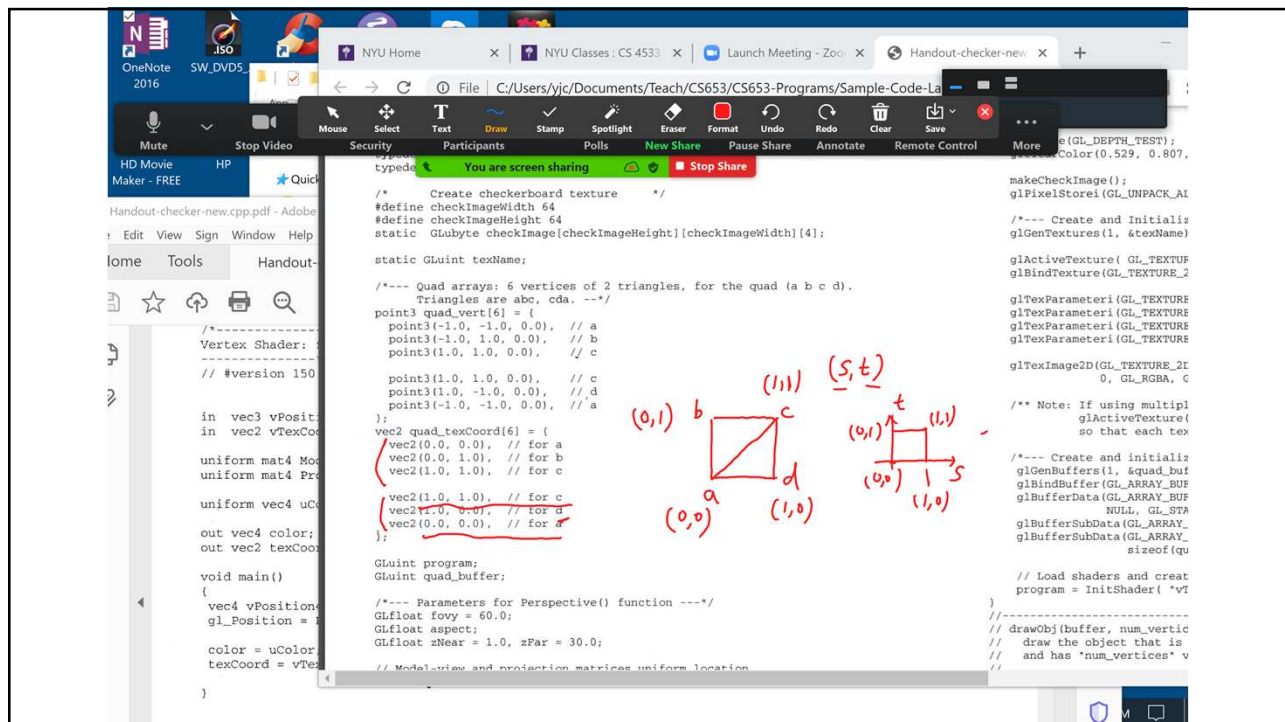
1

*** Texture Mapping**

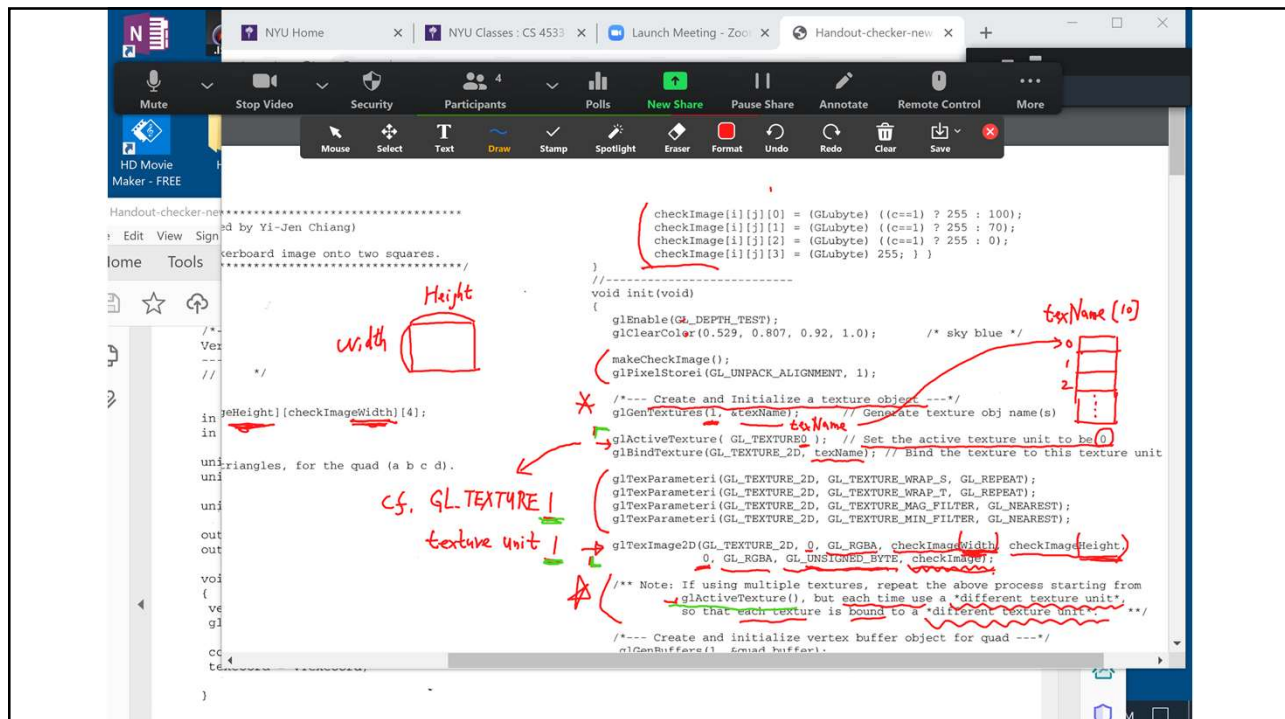
- Discussing the sample program “Handout: checker-new.cpp” (complete sample program has been posted at <https://cse.engineering.nyu.edu/cs653/Checker.tar.gz>).
- Some screenshots of this sample program with annotations are then shown next.
- Showing a demo of this sample program, as well as a demo of HW4.

*** Finally, discussing how to modify the “making decal” process in HW3 to do shadow blending in HW4 part (b).**

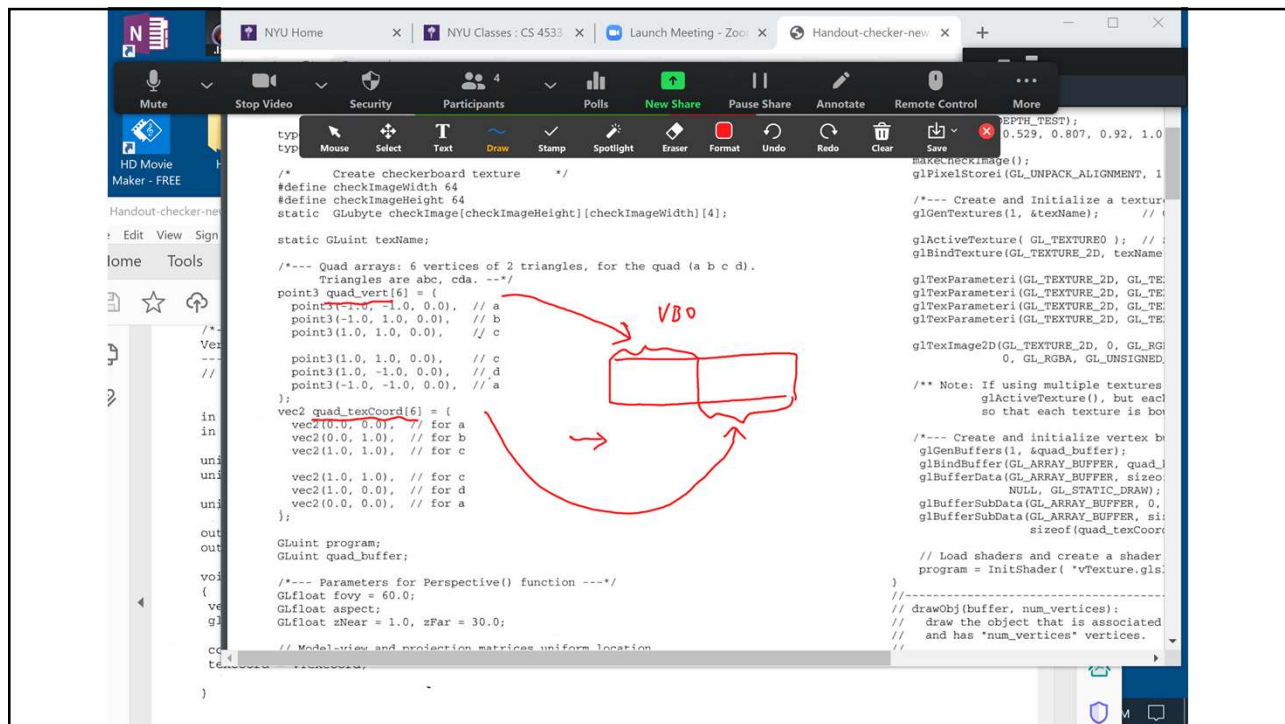
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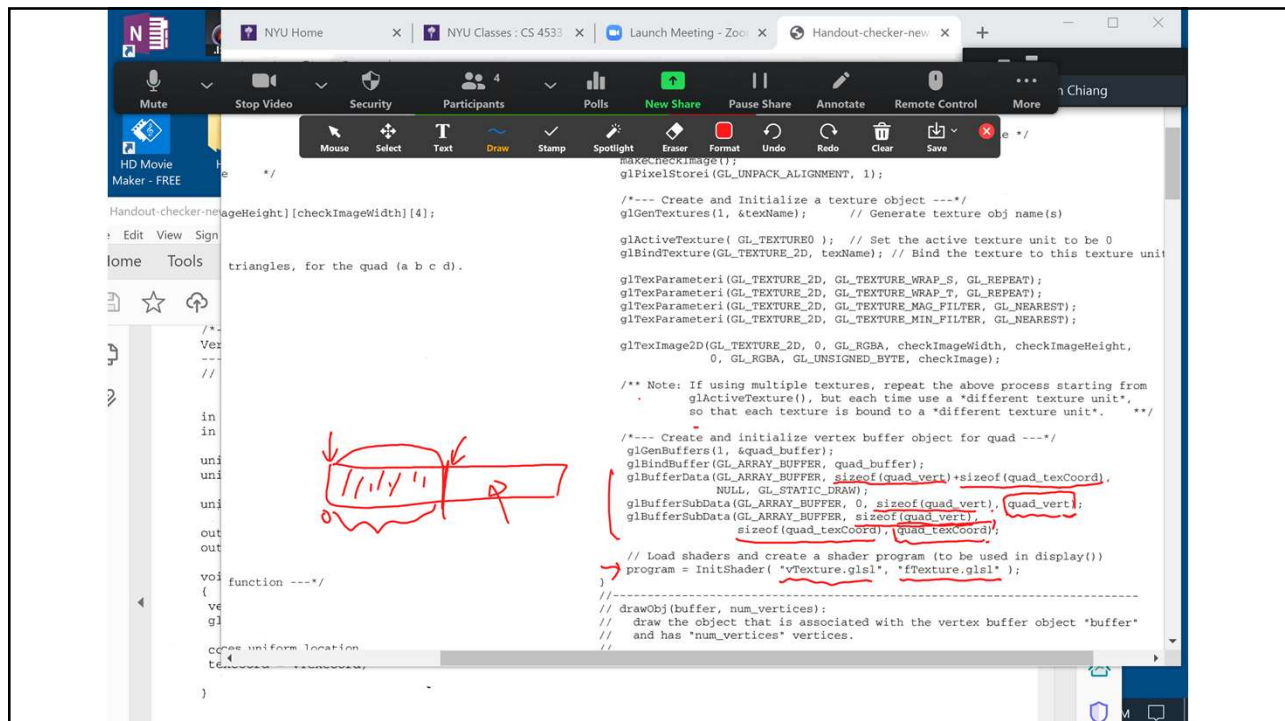
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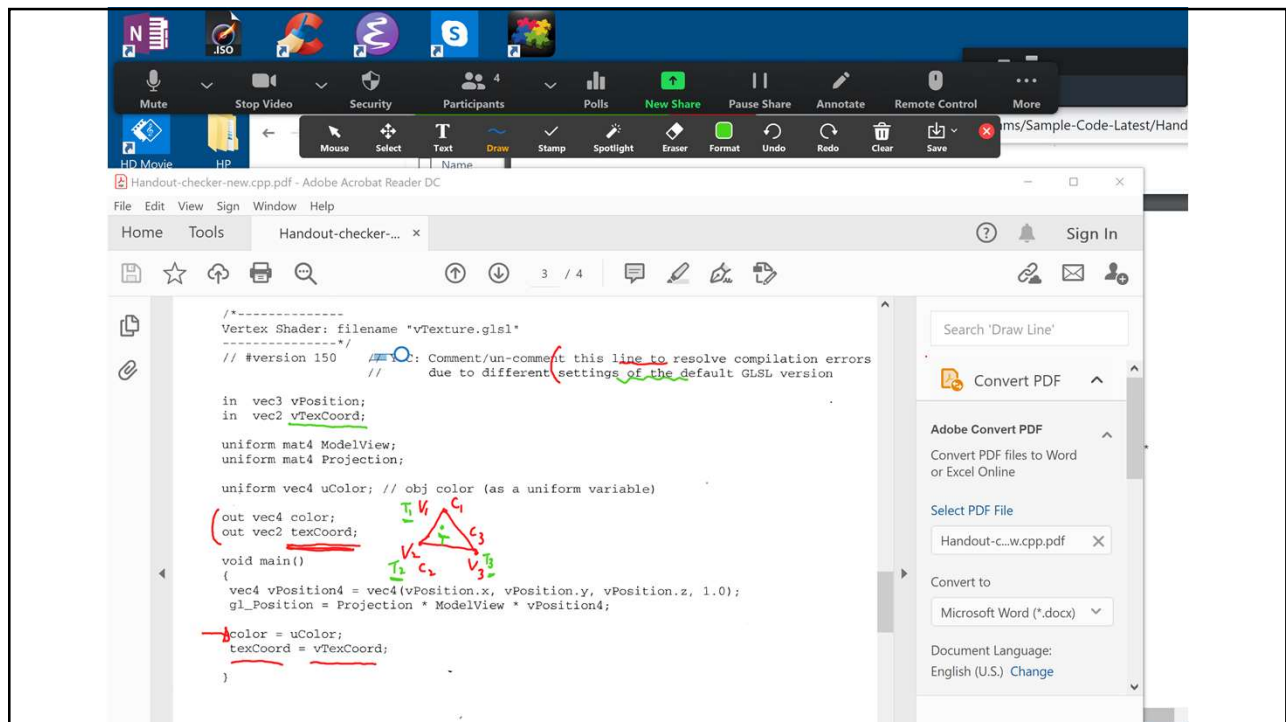
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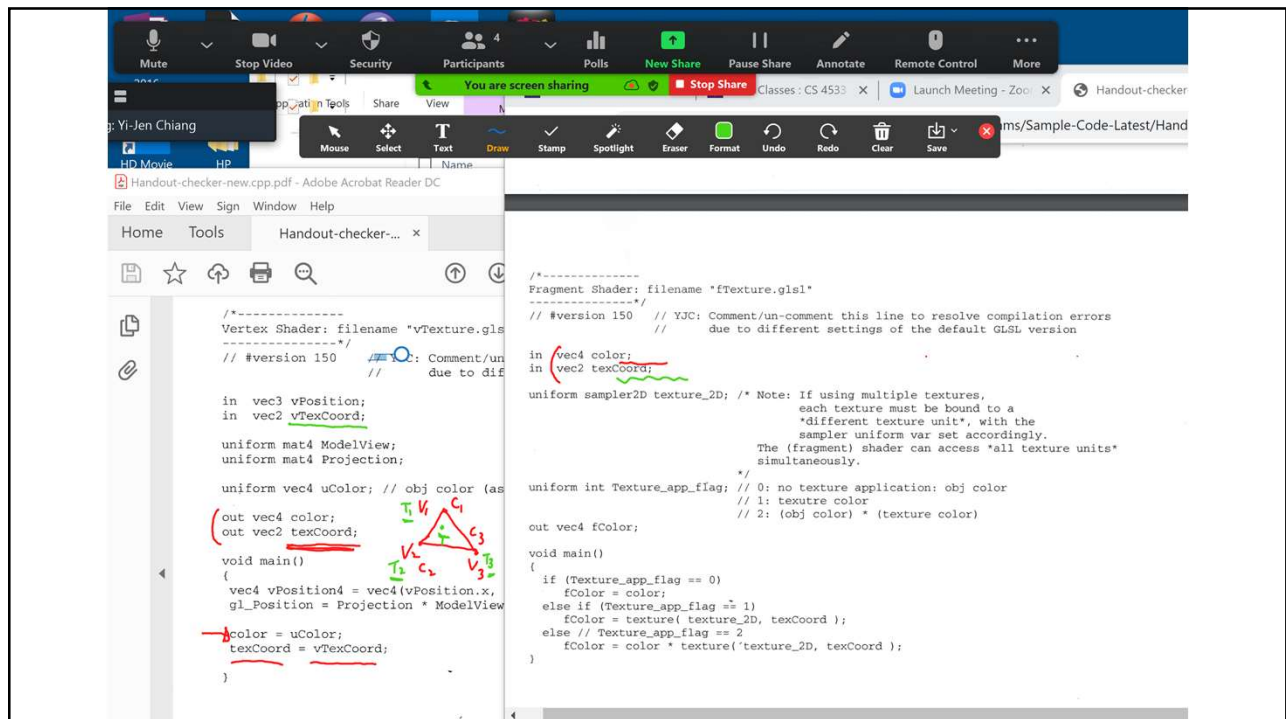
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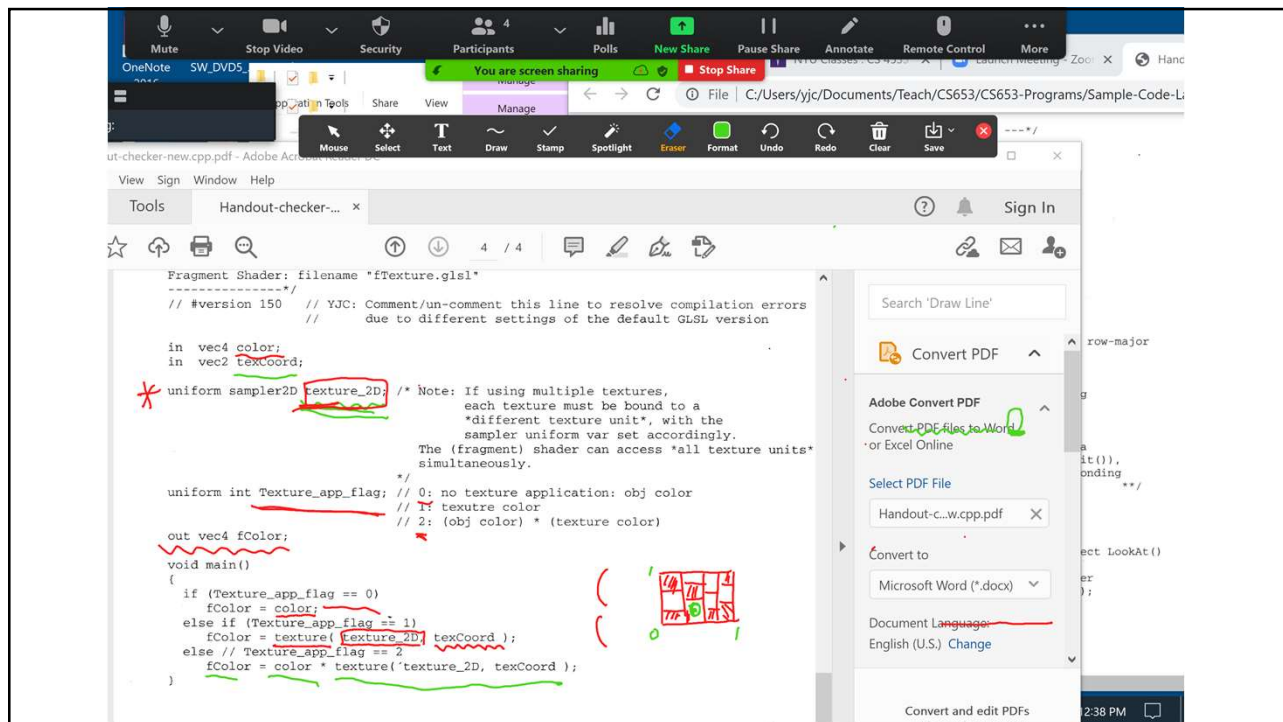
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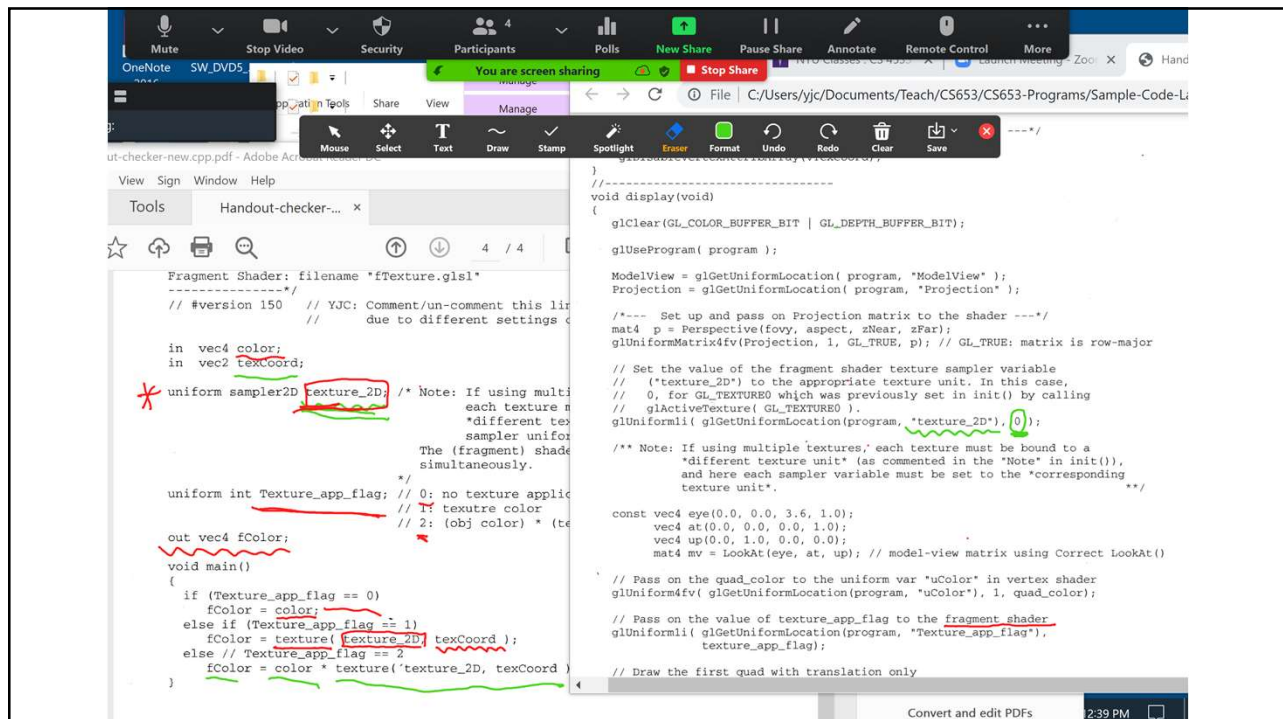
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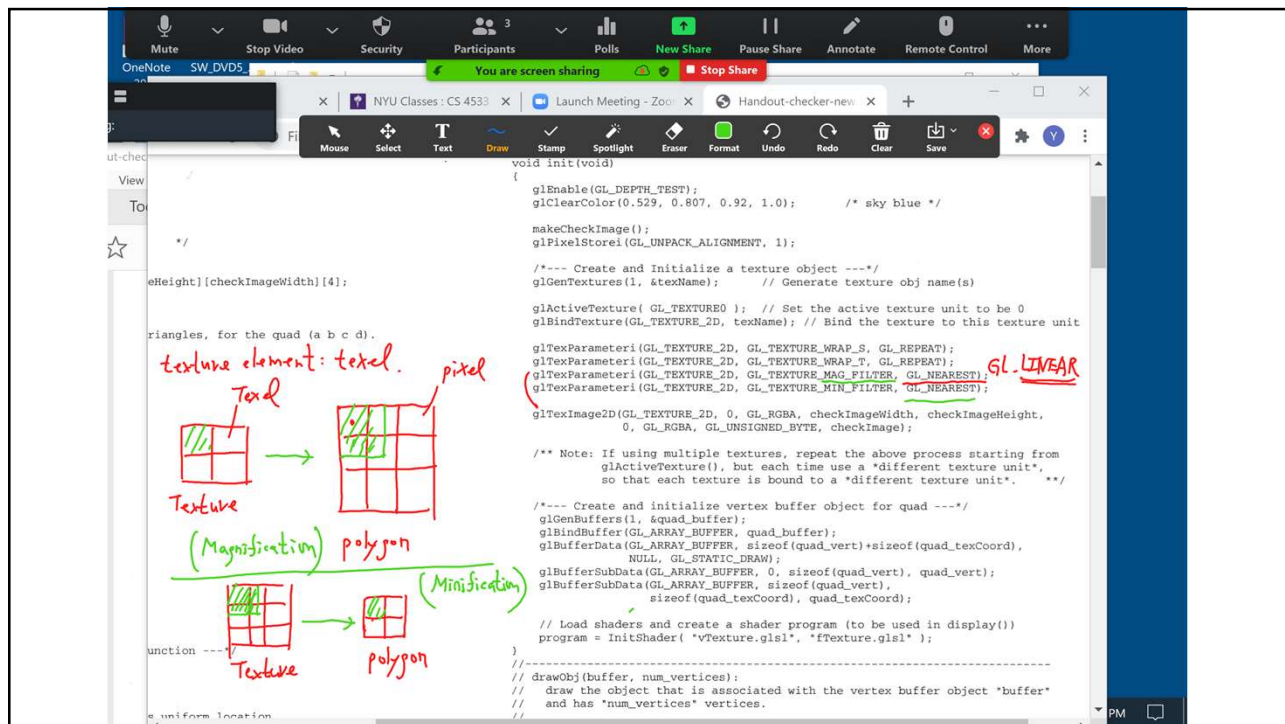
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Making Decal (from HW3) ⇒ HW4 (b) for semi-transparent shadow. (changes are shown in green)

(shadow is a decal on top of ground).

0. Always enable z-buffer testing.
1. (Draw ground only to frame buffer)
 - Disable writing to z-buffer
 - Draw ground (only to frame buffer)
2. Enable writing to z-buffer.
 - Draw shadow (only to frame buffer)
 - Shadow is NOT blocked by ground, so is drawn on top of ground.
 - Shadow Δ's are NOT in z-buffer ⇒ they are all drawn & blended. OK. ✓
3. (Restore ground into z-buffer)
 - Enable writing to z-buffer.
 - Disable writing to frame buffer
 - Draw ground (only to z-buffer)
 - Draw shadow (= = =)
4. Enable writing to frame buffer.
 - Resume normal operations.

critical section.

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