CMSI 371-01

COMPUTER GRAPHICS

Spring 2015

Assignment 0326a Feedback

Outcome 3a does not yet cover the entire graphics library for the course so it has a maximum proficiency of | for now. Similarly, because outcome 3d for this assignment only concerns the vertex shader, that outcome also has a maximum of | for this assignment.

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Upon opening *scene.html*, two 404 errors immediately show up; not an encouraging first impression. We'll have to dig in then...

- 1. A quick-fix change in filename to *scene.js* at least got things going. But this shouldn't have been necessary in the first place—make sure to track your code versions properly! (4a, 4b)
- 2. Watch your indentation! This is an extremely rudimentary oversight that should no longer be happening at this level. (4*t*)
- 3. OK, some shapes work seen here, but this is not quite what was intended. The intent here is to have a Shape object that *itself* would be the very instance that gets included in the set of objects to draw. As utilized, there is still an "anonymous" object involved. (1b, 4b)
- 4. There is certainly a library of polygon meshes, including the specifically-requested sphere, so that is good. The double-indirection is puzzling however; I see no need for it. We'll see how this code looks when I get to that file next. (1b, 3a, 4a)
- 5. *** Based on the shapes defined in this scene, there is no evidence here of composite shape functionality, another explicitly requested work item in the assignment. (1c, 4a)
- 6. With a fully-envisioned Shape object, this code would be one of the portions that can be refactored as a prototype function/method. (4b)
- 7. Function arguments in new lines should be indented. (4*c*)
- 8. *** Definitely no sign that shapes can handle children yet. (1c, 4a)
- 9. *** Wait what? Those function calls returned empty objects? This is not right. (1b, 3a, 4a)
- 10. OK, so *this* is where the heavy lifting is happening. In terms of raw functionality, yes, you have successfully created a few polygon meshes. In terms of design, however, these are in a very rudimentary form. Everything else listed in the objectsToDraw array should be folded into the final Shape object that should have been defined. The vertices and their indices just happened to be the beginning. And as mentioned in note #4, the double-call is completely unnecessary. A function like Shapes.sphere() should have done everything needed to create that sphere polygon mesh. (1b, 4b)
- 11. Ummm, nope, MAGIC_NUMBER is not a good name for this variable. (4b, 4c)
- 12. Thank you for crediting the resource used in helping with the sphere. (4d)
- 13. OK, good start...but clearly you have a ways to go here. (4a)
- $1b | \dots$ Thanks to the different defined polyhedra, this at least stays at a |. The missing Shape object is what keeps it from going higher.
- $1c / \dots$ Unfortunately, this functionality is totally absent.
- 3a (max |) / ... The polyhedra again save this one, but due to the maximum of | it is necessarily constrained because the maximum proficiency cannot be given without a Shape object.
- $3d \,(\text{max} \mid) / \dots$ The total absence of composite shapes means that no changes were made to the drawing code at all, which was not the intent of this assignment.

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- $4a / \dots$ The library of polyhedra constitutes around half the expected functionality.
- 4b | ...Nothing egregious seen, but also without the refactoring that would have been triggered by a correctly-designed Shape object it cannot be given maximum proficiency.
- 4c | ... The code presentation is mostly good, but are spoiled by some really avoidable glitches.
- 4d | ...Good move with crediting webglacademy.com, but beyond that you could have inquired more deeply about the very nature of a Shape object.
- 4e +
- 4f___+