CSE 20212: Fundamentals of Computing II
Group Project Report 2

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Yuxuan Chen

Total time spent: ~9 hours

- ~2 hours: Watch all video tutorials for Blender
  - *Reference: http://gryllus.net/Blender/Lessons/Lesson02.html*
- ~6 hours: Start modeling a motorcycle race track on Blender
- ~3 hours: Expreiment on the SDL game framework
  - *Reference: http://www.sdltutorials.com/sdl-tutorial-tic-tac-toe*

Shuyang Li

Total time spent: ~11.5 hours

- Feb. 23, 1:30 pm - 3:30 pm
  - Switched from SDL2 to SDL because lab computers only support SDL (it's so outdated!)
  - Continue using OpenGL with SDL to rewrite simple programs
  - ~~Issue: linker cannot find "main" entry point; might be a Mac problem (give up and revert to SDL2)~~
- Feb. 24, 9 am - 10 am
  - Solved linker issue; it's Mac-specific
  - ~~Issue: shaders don't compile; need to change GLSL from ver. 330 to 120 or lower (give up and use GLSL ver. 1.20 instead)~~
- Mar. 2, 4 pm - 5 pm
  - Continue working to solve compatibility issues
- Mar. 5, 4 pm - 5 pm,
  - Give up! Switch back to SDL2 since we're allowed to compile with our own laptop
  - Still debugging shaders; theoretically Mac supports GLSL ver. 330 but SDL windowing doesn't pick up the right context
- Mar. 5, 10:30 pm - 11 pm
  - Debugging shaders; now they compile but there're more problems
    - If cannot solve by end of spring break, will revert to the outdated fixed pipeline for OpenGL rendering
  - ~~Issue: GLSL linker complains about "compiled shader was corrupt", and google doesn't know either~~
- Mar. 6, 7:30 pm - 11 pm
  - Fixed all problems! Corruption issue is due to std::ifstream, ios::ate and ios::binary are not okay

- Program works correctly
- Further cleaned up program with helper objects to compile and link GLSL program
- Mar. 7, 10 am - 11 am
  - Figured out model, view, and perspective matrices
- Mar. 7, 12:15 pm - 1:45 pm
  - Continue working with transformation matrices
  - More work on fragment shader