

CS 535: Assignment 01

Programming Assignments (80%)

- **This assignment is in C++.**
- Copy src/app/VulkanStart.cpp and name it **src/app/Assign01.cpp**
- Change the application name from "VulkanStart" to "Assign01"
- Change the window title to be "Assign01: " + your SITNET ID
 - o E.g., "Assign01: realemj"
- Make a copy of the vulkanshaders/VulkanStart folder and name it **vulkanshaders/Assign01**
- Modify **CMakeLists.txt** by adding the following line to the end of the file:
 - o CREATE_VULKAN_EXECUTABLE(Assign01)
- Make sure the program configures, compiles, and runs as-is
- Find where the **background color** is set.
- **Animate the background color in whatever manner you see fit** with the following restrictions:
 - o You must at least have two notably different colors you change between.
 - o The values for red, green, and blue should be between 0.0f and 1.0f.
 - o Make sure that the alpha value is always 1.0f.
 - o Feel free to use the glm::vec3 and glm::vec4 structs from GLM.
 - o You must use the pro::getTime() and pro::getElapsedSeconds() functions (defined in ProTime.hpp) to ensure that your change is based on TIME and not on framerate.
 - o Please do not change the color so quickly that a seizure warning would be deemed necessary.
 - o For this assignment, feel free to use globals.
 - o Be creative 😊

Screenshot (10%)

- **Take a screenshot** of the application window.
 - o *Windows:* Alt + Screenshot button OR Windows Button + Shift + S
- Copy the image into the **screenshots** folder as "Assign01.png"

README (10%)

- In README.md, change "Your Name Here" to your full name.
- Under the "Applications" section, add a subsection (same format as VulkanStart) very briefly describing what you decided to do for your background animation.

Grading

Your OVERALL assignment grade is weighted as follows:

- 80% - Programming
- 10% - Screenshot
- 10% - README

I reserve the right to take points off for not meeting the specifications in this assignment description.

The following specific penalties (applied to the WHOLE assignment) can be expected:

Problem	Maximum Penalty
Code that does not compile	60
No animation (or colors barely distinguishable)	60
Not syncing animation with time	15
Animation WAY too fast	10
Bad/out-of-range background color values (including alpha)	10
Incorrect application name	5
Incorrect window title	5
Technically correct code, but poor code design (globals are fine here)	5
Missing assignment Git branch	5
Missing shaders folder	10
Missing screenshot	10
README update missing/incorrect	10

In general, these are things that will be penalized:

- **Code that does not compile (up to 60 points off!)**
- Sloppy or poor coding style
- Bad coding design principles
- Code that crashes, does not run, or takes a VERY long time to complete
- Using code from ANY source other than the course materials
- Collaboration on code of ANY kind; this is an INDIVIDUAL PROJECT
- Sharing code with other people in this class or using code from this or any other related class
- Output that is incorrect
- Algorithms/implementations that are incorrect
- Submitting improper files
- Failing to submit ALL required files