

## Assignment 13: Initialize Vulkan up to the Command Buffer creation

Following the tutorial on:

<https://vulkan-tutorial.com>

complete the skeleton application in `Assignment13.cpp` to:

1. Create a Window with GLFW.
2. Create a Vulkan Instance.
3. Create a Presentation Surface with GLFW.
4. Cycle through the available device and pick up the first supporting both a graphic and a presentation queue.
5. Create a Logical Device with both a graphic queue and a presentation queue.
6. Create a Command Pool for the graphic queue.
7. Create a Command Buffer from the previous Command Pool
8. Release all the resources.

In the above mentioned tutorial, skip for the moment the section about validation layers: (No [https://vulkan-tutorial.com/Drawing a triangle/Setup/Validation layers](https://vulkan-tutorial.com/Drawing_a_triangle/Setup/Validation_layers)) on which we will return in a following lesson, and focus on:

[https://vulkan-tutorial.com/Drawing a triangle/Setup/Physical devices and queue families](https://vulkan-tutorial.com/Drawing_a_triangle/Setup/Physical_devices_and_queue_families)

[https://vulkan-tutorial.com/Drawing a triangle/Setup/Logical device and queues](https://vulkan-tutorial.com/Drawing_a_triangle/Setup/Logical_device_and_queues)

[https://vulkan-tutorial.com/Drawing a triangle/Presentation/Window surface](https://vulkan-tutorial.com/Drawing_a_triangle/Presentation/Window_surface)

and the first two section of

[https://vulkan-tutorial.com/Drawing a triangle/Drawing/Command buffers](https://vulkan-tutorial.com/Drawing_a_triangle/Drawing/Command_buffers)

Command Pools: [https://vulkan-tutorial.com/Drawing a triangle/Drawing/Command buffers#page Command-pools](https://vulkan-tutorial.com/Drawing_a_triangle/Drawing/Command_buffers#page_Command-pools)

and Command Buffer Allocation: [https://vulkan-tutorial.com/Drawing a triangle/Drawing/Command buffers#page Command-buffer-allocation](https://vulkan-tutorial.com/Drawing_a_triangle/Drawing/Command_buffers#page_Command-buffer-allocation)

leaving the rest of that chapter for a later assignment.