REYNEP's Vulkan "Adventure Guide"

Where, you adventure on your own ☺, I only 'guide', showing you the roadmap

Chapter 0: Prerequisites

1. What is `Vulkan` ? .... Why `Vulkan` ?

1. Read the `1 - Introduction` part from here only ☺
   i. *https://paminerva.github.io/docs/LearnVulkan/01.A-Hello-Window*
      - 😊 *00-Introduction-and-prerequisites.pdf*
      - 😊 *01.A-Hello-Window.pdf*
   ii. *Alternatively:- you can give this page a try too:-*
      - *https://vkdoc.net/chapters/fundamentals*
      - *that is, if you are okay with "official formal-documentation"*
2. Why should *'you'* learn/use `Vulkan` ?
   i. *Faster*
   ii. *More Control*
   iii. *Lower Level API*
3. Why is this Important?
   - *Well if you are planning on becoming a game dev, then yeah, this kinda is important!*
   - *otherwise, if you are just here for CreatingShaders:-* `OpenGL` *is fine enough*
     a. `Shader Enthusiast:-` *https://www.shadertoy.com/*
        a. *https://www.youtube.com/playlist?list=PL9Zb80ovNLWGRFZVL4LcckTWnEGN73dFS*
        b. *https://www.youtube.com/playlist?list=PLGmrMu-IwbguU_nY2egTFmlg691DN7uE5*
        c. *https://www.youtube.com/playlist?list=PLCAFZV4XJzP-jGbTke6Bd3PNDpP1AbIKo*
        d. *https://www.youtube.com/playlist?list=PLGmrMu-IwbgtMxMiV3x4IrHPlPmg7FD-P*
        e. *https://www.youtube.com/watch?v=5J-0sy2pu_8&t=357s&pp=ygUVc2hhZGVyVG95IHJheW1hcmNoaW5n*
        f. *https://www.youtube.com/watch?v=khblXafu7iA&pp=ygUJc2hhZGVyVG95*
     b. `Making an App/UI :-` *doing everything with* `OpenGL` *-> would be just fine*
        a. *TheCherno OpenGL Playlist [YT]*
        b. *TheCherno Game Engine Playlist [YT]*

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4. When will I **_need_** `vulkan`?
    kinda never  ->  unless you have grown tired of OpenGL
    kinda   yes  ->  when you wanna understand "How the heck does the GPU Work?"

    but yes, Big AAA games would need `vulkan` for even that last 5-10% performance

5. How does `vulkan` work?
    - Rest of this entire guide is dedicated to answer this question 😊
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2. grab `vulkan-sdk` , `cmake` , `amGHOST`

1. https://vulkan.lunarg.com/sdk/home
   - *make sure* `VULKAN_SDK` & `VK_SDK_PATH` *environment variables are set*

- *restart vscode after installing*

2. https://cmake.org/download/
   - *[optional] https://enccs.github.io/intro-cmake/hello-cmake/*
   - *[optional] OR: Watch 6/7 videos from this playlist:- https://www.youtube.com/playlist?list=PLK6MXr8gasrGmIiSuVQXpfFuE1uPT615s*
   - *restart vscode after installing*
3. if you don't have `vscode` & `C++ Compiler` --> see 4.guide.CH0.vscode.md
4. `git clone -b win32-intro https://github.com/REYNEP/amGHOST`
   - *Open it with VSCode*
   - `F1` --> `CMake: Configure`
   - `F1` --> `CMake: Build`
   - `F1` --> `CMake: Install` --> `.insall` *dir*
   - *check's* ***amGHOST's Usage Example*** *inside* `amGHOST/README.md`
   - `Option 1` *:- use* `cmake` *for your project too.... using* `add_subdirectory(amGHOST)`
   - `Option 2` *:- use* `libamGHOST.lib` *after installing &* `#include amGHOST/<header>`
   - *just copy paste* ***amGHOST's Usage Example*** *into a* `main.cpp` *for your program*
     - *now you shall have a OS-Window* 😊