VRE::VRE_Window

- int mWidth
- int mHeight
- bool mFrameBufferResized
- const std::string mWindowName
- GLFWwindow * mWindow

- + VRE_Window(int width, int height, std::string name)
- + ~VRE_Window()
- + VRE_Window(const VRE _Window &)=delete
- + VRE_Window & operator =(const VRE_Window &) =delete
- + bool ShouldClose()
- + void CreateWindowSurface (VkInstance instance, VkSurface KHR *surface)
- + VkExtent2D GetExtent()
- + bool HasWindowResized()
- + void ResetWindowResizedFlag()
- + GLFWwindow * GetGLFWwindow () const
- - void Init()
- - static void FrameBufferResized Callback(GLFWwindow *window, int width, int height)

-mWindow

VRE::VRE_Device

- + const bool mEnableValidation Layers
- + VkPhysicalDeviceProperties mProperties
- - VkInstance mInstance
- - VkDebugUtilsMessengerEXT mDebugMessenger
- - VkPhysicalDevice mPhysical Device
- - VkCommandPool mCommandPool
- - VkDevice mVkDevice
- - VkSurfaceKHR mVkSurface
- - VkQueue mGraphicsQueue
- - VkQueue mPresentQueue
- - const std::vector< const char * > mValidation Layers
- - const std::vector< const char * > mDeviceExtensions

- + VRE_Device(VRE_Window &window)
- + ~VRE_Device()
- + VRE_Device(const VRE _Device &)=delete
- + VRE_Device & operator =(const VRE_Device &) =delete
- + VRE_Device(VRE_Device &&)=delete
- + VRE_Device & operator =(VRE_Device &&)=delete
- + VkCommandPool GetCommand Pool()
- + VkDevice GetVkDevice()
- + VkPhysicalDevice GetPhysical Device()
- + VkSurfaceKHR Surface()

  and 12 more...

- - void CreateInstance()
- - void SetupDebugMessenger()
- - void CreateSurface()
- - void PickPhysicalDevice()
- - void CreateLogicalDevice()
- - void CreateCommandPool()
- - bool IsDeviceSuitable (VkPhysicalDevice device)
- - std::vector< const char * > GetRequiredExtensions()
- - bool CheckValidationLayer Support()
- - QueueFamilyIndices FindQueueFamilies(VkPhysical Device device)
- - void PopulateDebugMessenger CreateInfo(VkDebugUtilsMessenger CreateInfoEXT &createInfo)
- - void HasGflwRequiredInstance Extensions()
- - bool CheckDeviceExtension Support(VkPhysicalDevice device)
- - SwapChainSupportDetails QuerySwapChainSupport (VkPhysicalDevice device)

-mDevice

-mWindow

VRE::VRE_Renderer

- - std::unique_ptr< VRE _SwapChain > mSwapChain
- - std::vector< VkCommandBuffer > mCommandBuffers
- - uint32_t mCurrentImageIndex
- - int mCurrentFrameIndex
- - bool mDrawStarted

- + VRE_Renderer(VRE_Window &window, VRE_Device &device)
- + ~VRE_Renderer()
- + VRE_Renderer(const VRE_Renderer &)=delete
- + VRE_Renderer & operator =(const VRE_Renderer &) =delete
- + VkCommandBuffer BeginDraw()
- + void EndDraw()
- + void BeginSwapChainRender Pass(VkCommandBuffer commandBuffer)
- + void EndSwapChainRenderPass (VkCommandBuffer commandBuffer)
- + bool IsDrawInProgress () const
- + VkRenderPass GetSwapChain RenderPass() const
- + float GetAspectRatio () const
- + VkCommandBuffer GetCurrent CommandBuffer() const
- + int GetFrameIndex() const
- - void CreateCommandBuffers()
- - void RecreateSwapChain()
- - void FreeCommandBuffers()

+mDevice

+mRenderer

VRE::VRE_SharedContext

- + std::shared_ptr< VRE _DescriptorSetLayout > mGlobalDescSetLayout
- + std::vector< std::unique _ptr< VRE_DescriptorPool > > mObjectDescPools
- + std::vector< VkDescriptor Set > mSceneDescriptorSets
- + std::vector< VRE_PointLight > mPointLights
- + VRE_GameObject::GameObjects Map * mGameObjMap

- + VRE_SharedContext()

-mSharedContext

VRE::VRE_GameObjRenderSystem

- - std::unique_ptr< VRE _Pipeline > mPipeline
- - std::unique_ptr< VRE _DescriptorSetLayout > mDescSetLayout
- - VkPipelineLayout mPipeline Layout

- + VRE_GameObjRenderSystem (VRE_SharedContext *sharedContext)
- + ~VRE_GameObjRenderSystem()
- + VRE_GameObjRenderSystem (const VRE_GameObjRenderSystem &)=delete
- + VRE_GameObjRenderSystem & operator=(const VRE _GameObjRenderSystem &) =delete
- + void Init()
- + void Render()
- - void CreatePipelineLayouts()
- - void CreatePipelines()