Blazor Component Lifecycle Diagram

HAVIT SOFTWARE DEVELOPMENT

description

Phase	Description
SetParametersAsync	Override SetParametersAsync if you want to execute some code before the parameters are set. Always call base.SetParametersAsync() to execute the original logic!
OnInitialized	OnInitializedAsync and OnInitialized execute code to initialize the component. The method is called just once before the firstRender of the component.
OnParametersSet	OnParametersSet[Async] is called after component initialization or when a component has received parameters from its parent and the values are assigned to properties.
Event Callback	Components provide event handling features. For an HTML element attribute named on{event} (for example, onclick and onsubmit) with a delegate-typed value, components treats the attribute's value as an event handler.
Render	Override BuildRenderTree() if you want to build markup-less component (no .razor file). If you create a .razor file, the override of BuildRenderTree() method is generated for you from the markup.
OnAfterRender	OnAfterRenderAsync and OnAfterRender are called after a component has finished rendering. Element and component references are populated at this point.
Dispose	If a component implements IDisposable, the Dispose method is called when the component is removed from the UI.

FULL

Layer	SetParametersAsync	OnInitialized	OnParametersSet	Event Callback	Render	OnAfterRender	Dispose
Blazor Infrastructure	base.SetParametersAsync() / SetParameterProperties()	StateHasChanged() / ShouldRender() / AddToRenderQueue()	StateHasChanged() / ShouldRender() / AddToRenderQueue()	HandleEventAsync() / StateHasChanged() / ShouldRender() / AddToRenderQueue()	ProcessRenderQueue()	NotifyRenderCompleted()	Dispose()
Component User Code	override SetParametersAsync() START	OnInitialized() / OnInitializedAsync()	OnParametersSet() / OnParametersSetAsync()	event callback	BuildRenderTree() / markup code	OnAfterRender() / OnAfterRenderAsync	IDisposable.Dispose()

(override SetParametersAsync() END — after OnParametersSet)

new component added

Layer	SetParametersAsync	OnInitialized	OnParametersSet	Event Callback	Render	OnAfterRender	Dispose
Blazor Infrastructure	base.SetParametersAsync() / SetParameterProperties()	StateHasChanged() / ShouldRender() / AddToRenderQueue()	StateHasChanged() / ShouldRender() / AddToRenderQueue()	HandleEventAsync() / StateHasChanged() / ShouldRender() / AddToRenderQueue()	ProcessRenderQueue()	NotifyRenderCompleted()	Dispose()
Component User Code	override SetParametersAsync() START	OnInitialized() / OnInitializedAsync()	OnParametersSet() / OnParametersSetAsync()	event callback	BuildRenderTree() / markup code	OnAfterRender(true) / OnAfterRenderAsync(true)	IDisposable.Dispose()

(override SetParametersAsync() END — after OnParametersSet)

parameter(s) value changed

Layer	SetParametersAsync	OnInitialized	OnParametersSet	Event Callback	Render	OnAfterRender	Dispose
Blazor Infrastructure	base.SetParametersAsync() / SetParameterProperties()	StateHasChanged() / ShouldRender() / AddToRenderQueue()	StateHasChanged() / ShouldRender() / AddToRenderQueue()	HandleEventAsync() / StateHasChanged() / ShouldRender() / AddToRenderQueue()	ProcessRenderQueue()	NotifyRenderCompleted()	Dispose()
Component User Code	override SetParametersAsync() START	OnInitialized() / OnInitializedAsync()	OnParametersSet() / OnParametersSetAsync()	event callback	BuildRenderTree() / markup code	OnAfterRender(false) / OnAfterRenderAsync(false)	IDisposable.Dispose()

(override SetParametersAsync() END — after OnParametersSet)

event handled

Layer	SetParametersAsync	OnInitialized	OnParametersSet	Event Callback	Render	OnAfterRender	Dispose
Blazor Infrastructure	base.SetParametersAsync() / SetParameterProperties()	StateHasChanged() / ShouldRender() / AddToRenderQueue()	StateHasChanged() / ShouldRender() / AddToRenderQueue()	HandleEventAsync() / StateHasChanged() / ShouldRender() / AddToRenderQueue()	ProcessRenderQueue()	NotifyRenderCompleted()	Dispose()
Component User Code	override SetParametersAsync() START	OnInitialized() / OnInitializedAsync()	OnParametersSet() / OnParametersSetAsync()	event callback	BuildRenderTree() / markup code	OnAfterRender(false) / OnAfterRenderAsync(false)	IDisposable.Dispose()

(override SetParametersAsync() END — after OnParametersSet)

component removed

Layer	SetParametersAsync	OnInitialized	OnParametersSet	Event Callback	Render	OnAfterRender	Dispose
Blazor Infrastructure	base.SetParametersAsync() / SetParameterProperties()	StateHasChanged() / ShouldRender() / AddToRenderQueue()	StateHasChanged() / ShouldRender() / AddToRenderQueue()	HandleEventAsync() / StateHasChanged() / ShouldRender() / AddToRenderQueue()	ProcessRenderQueue()	NotifyRenderCompleted()	Dispose()
Component User Code	override SetParametersAsync() START	OnInitialized() / OnInitializedAsync()	OnParametersSet() / OnParametersSetAsync()	event callback	BuildRenderTree() / markup code	OnAfterRender(false) / OnAfterRenderAsync(false)	IDisposable.Dispose()

(override SetParametersAsync() END — after OnParametersSet)

usual usage

SetParametersAsync	OnInitialized	OnParametersSet	Event Callback	OnAfterRender	Dispose
intercept incoming parameters before they are set, e.g. override, validate or set defaults	load and fill static data (select options, ...)	load and set values (edited object, ...)	act on events (save values, ...)	activate third-party JS libraries that operate on the rendered DOM elements (on firstRender=true).	deregister third-party JS libraries that operated on the removed DOM elements

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