

# API Reference

Filter

## Global API

### Application

`createApp()`  
`createSSRApp()`  
`app.mount()`  
`app.unmount()`  
`app.component()`  
`app.directive()`  
`app.use()`  
`app.mixin()`  
`app.provide()`  
`app.runWithContext()`  
`app.version`  
`app.config`  
`app.config.errorHandler`  
`app.config.warnHandler`  
`app.config.performance`  
`app.config.compilerOptions`  
`app.config.globalProperties`  
`app.config.optionMergeStrategies`

### General

`version`  
`nextTick()`  
`defineComponent()`  
`defineAsyncComponent()`  
`defineCustomElement()`

## Composition API

### setup()

Basic Usage  
Accessing Props  
Setup Context  
Usage with Render Functions

### Reactivity: Core

`ref()`  
`computed()`  
`reactive()`  
`readonly()`  
`watchEffect()`  
`watchPostEffect()`  
`watchSyncEffect()`  
`watch()`

Reactivity: Utilities

isRef()  
unref()  
toRef()  
toValue()  
toRefs()  
isProxy()  
isReactive()  
isReadonly()

Reactivity: Advanced

shallowRef()  
triggerRef()  
customRef()  
shallowReactive()  
shallowReadonly()  
toRaw()  
markRaw()  
effectScope()  
getCurrentScope()  
onScopeDispose()

Lifecycle Hooks

onMounted()  
onUpdated()  
onUnmounted()  
onBeforeMount()  
onBeforeUpdate()  
onBeforeUnmount()  
onErrorCaptured()  
onRenderTracked()  
onRenderTriggered()  
onActivated()  
onDeactivated()  
onServerPrefetch()

Dependency Injection

provide()  
inject()

Options API

Options: State

data  
props  
computed  
methods  
watch  
emits  
expose

Options: Rendering

template  
render  
compilerOptions  
slots

Options: Lifecycle

beforeCreate  
created  
beforeMount  
mounted  
beforeUpdate  
updated  
beforeUnmount  
unmounted  
errorCaptured  
renderTracked  
renderTriggered  
activated  
deactivated  
serverPrefetch

Options: Composition	Component Instance
provide	\$data
inject	\$props
mixins	\$el
extends	\$options
	\$parent
	\$root
	\$slots
	\$refs
	\$attrs
	\$watch()
	\$emit()
	\$forceUpdate()
	\$nextTick()

Built-ins
<div><div>Directives</div><div>v-text</div><div>v-html</div><div>v-show</div><div>v-if</div><div>v-else</div><div>v-else-if</div><div>v-for</div><div>v-on</div><div>v-bind</div><div>v-model</div><div>v-slot</div><div>v-pre</div><div>v-once</div><div>v-memo</div><div>v-cloak</div></div> <div><div>Components</div><div>&lt;Transition&gt;</div><div>&lt;TransitionGroup&gt;</div><div>&lt;KeepAlive&gt;</div><div>&lt;Teleport&gt;</div><div>&lt;Suspense&gt;</div></div> <div><div>Special Elements</div><div>&lt;component&gt;</div><div>&lt;slot&gt;</div><div>&lt;template&gt;</div></div> <div><div>Special Attributes</div><div>key</div><div>ref</div><div>is</div></div>

## Single-File Component

## Syntax Specification

- Overview
- Language Blocks
- Automatic Name Inference
- Pre-Processors
- src Imports
- Comments

## <script setup>

- Basic Syntax
- Reactivity
- Using Components
- Using Custom Directives
- defineProps() & defineEmits()
- defineExpose()
- defineOptions()
- defineSlots()
- useSlots() & useAttrs()
- Usage alongside normal <script>
- Top-level await
- Generics
- Restrictions

## CSS Features

- Scoped CSS
- CSS Modules
- v-bind() in CSS

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## Advanced APIs

### Render Function

h()  
mergeProps()  
cloneVNode()  
isVNode()  
resolveComponent()  
resolveDirective()  
withDirectives()  
withModifiers()

### Server-Side Rendering

renderToString()  
renderToNodeStream()  
pipeToNodeWritable()  
renderToWebStream()  
pipeToWebWritable()  
renderToSimpleStream()  
useSSRContext()

### TypeScript Utility Types

PropType<T>  
MaybeRef<T>  
MaybeRefOrGetter<T>  
ExtractPropTypes<T>  
ExtractPublicPropTypes<T>  
ComponentCustomProperties  
ComponentCustomOptions  
ComponentCustomProps  
CSSProperties

### Custom Renderer

createRenderer()