

New to Gradio? Start here: Getting Started

See the Release History

Chatbot →

← BarPlot

Button

 $gradio.Button(\cdots)$

Description

Used to create a button, that can be assigned arbitrary click() events. The label (value) of the button can be used as an input or set via the output of a function.

Behavior

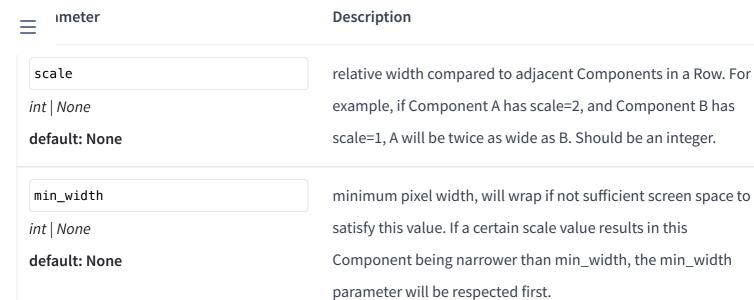
As input: passes the button value as a str into the function

As output: expects a str to be returned from a function, which is set as the label of the button

Initialization

Parameter	Description
value	Default text for the button to display. If callable, the function will
str Callable	be called whenever the app loads to set the initial value of the
default: "Run"	component.
every	If value is a callable, run the function 'every' number of seconds
float None	while the client connection is open. Has no effect otherwise.
default: None	Queue must be enabled. The event can be accessed (e.g. to
	cancel it) via this component's .load_event attribute.
variant	'primary' for main call-to-action, 'secondary' for a more subdued
Literal[('primary', 'secondary', 'stop')]	style, 'stop' for a stop button.
default: "secondary"	

_ imeter	Description
size	Size of the button. Can be "sm" or "lg".
Literal[('sm', 'lg')] None	
default: None	
icon	URL or path to the icon file to display within the button. If None,
str None	no icon will be displayed. Must be within the working directory
default: None	the Gradio app or an external URL.
link	URL to open when the button is clicked. If None, no link will be
str None	used.
default: None	
visible	If False, component will be hidden.
bool	
default: True	
interactive	If False, the Button will be in a disabled state.
bool	
default: True	
elem_id	An optional string that is assigned as the id of this component in
str None	the HTML DOM. Can be used for targeting CSS styles.
default: None	
elem_classes	An optional list of strings that are assigned as the classes of this
list[str] str None	component in the HTML DOM. Can be used for targeting CSS
default: None	styles.
render	If False, component will not render be rendered in the Blocks
bool	context. Should be used if the intention is to assign event



Shortcuts

Class	Interface String Shortcut	Initialization
gradio.Button	"button"	Uses default values
gradio.ClearButton	"clearbutton"	Uses default values
gradio.DuplicateButton	"duplicatebutton"	Uses default values
gradio.LoginButton	"loginbutton"	Uses default values
gradio.LogoutButton	"logoutbutton"	Uses default values

Demos

```
blocks_inputs

import gradio as gr
import os

def combine(a, b):
    return a + " " + b

def mirror(x):
    return x
```



Event Listeners

Description

Event listeners allow you to capture and respond to user interactions with the UI components you've defined in a Gradio Blocks app. When a user interacts with an element, such as changing a slider value or uploading an image, a function is called.

Supported Event Listeners

default: "decorator"

The Button component supports the following event listeners. Each event listener takes the same parameters, which are listed in the Event Arguments table below.

Listener	Description	
gradio.Button.click(fn, ···)	Triggered when the Button is clicked.	
Event Arguments Parameter	Description	
fn Callable None Literal['decorator']	the function to call when this event is triggered. Often a machine learning model's prediction function. Each	

machine learning model's prediction function. Each
parameter of the function corresponds to one input
component, and the function should return a single value or
a tuple of values, with each element in the tuple
corresponding to one output component.

 inputs
 List of gradio.components to use as inputs. If the function

 Component | list[Component] | takes no inputs, this should be an empty list.

 set[Component] | None

 default: None

 outputs
 List of gradio.components to use as outputs. If the function

 Component | list[Component] | None
 returns no outputs, this should be an empty list.

 default: None

Parameter	Description
api_name str None Literal[False] default: None	defines how the endpoint appears in the API docs. Can be a string, None, or False. If set to a string, the endpoint will be exposed in the API docs with the given name. If None (default), the name of the function will be used as the API endpoint. If False, the endpoint will not be exposed in the
	API docs and downstream apps (including those that gr.load this app) will not be able to use this event.
scroll_to_output bool default: False	If True, will scroll to output component on completion
show_progress Literal[('full', 'minimal', 'hidden')] default: "full"	If True, will show progress animation while pending
queue bool None	If True, will place the request on the queue, if the queue has been enabled. If False, will not put this event on the queue,
default: None	even if the queue has been enabled. If None, will use the queue setting of the gradio app.
batch	If True, then the function should process a batch of inputs,
bool default: False	meaning that it should accept a list of input values for each parameter. The lists should be of equal length (and be up to length max_batch_size). The function is then <i>required</i> to return a tuple of lists (even if there is only 1 output component), with each list in the tuple corresponding to on output component.
max_batch_size int	Maximum number of inputs to batch together if this is calle from the queue (only relevant if batch=True)

Parameter	Description
bool default: True	If False, will not run preprocessing of component data before running 'fn' (e.g. leaving it as a base64 string if this method is called with the Tmage component).
postprocess bool default: True	If False, will not run postprocessing of component data before returning 'fn' output to the browser.
cancels dict[str, Any] list[dict[str, Any]] None default: None	A list of other events to cancel when this listener is triggered. For example, setting cancels=[click_event] will cancel the click_event, where click_event is the return value of another components .click method. Functions that have not yet run (or generators that are iterating) will be cancelled, but functions that are currently running will be allowed to finish.
every float None default: None	Run this event 'every' number of seconds while the client connection is open. Interpreted in seconds. Queue must be enabled.
<pre>trigger_mode Literal[('once', 'multiple', 'always_last')] None default: None</pre>	If "once" (default for all events except .change()) would not allow any submissions while an event is pending. If set to "multiple", unlimited submissions are allowed while pending, and "always_last" (default for .change() event) would allow a second submission after the pending event is complete.

js

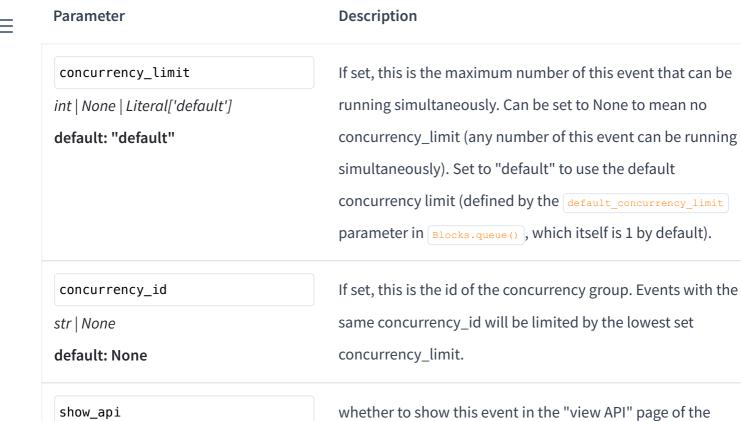
str | None

default: None

Optional frontend js method to run before running 'fn'. Input

arguments for js method are values of 'inputs' and 'outputs',

return should be a list of values for output components.



← BarPlot

bool

default: True

whether to show this event in the "view API" page of the Gradio app, or in the ".view_api()" method of the Gradio clients. Unlike setting api_name to False, setting show_api to False will still allow downstream apps to use Chatbot is None, show_api will automatically be set to raise.



