Introduction to jQuery Events



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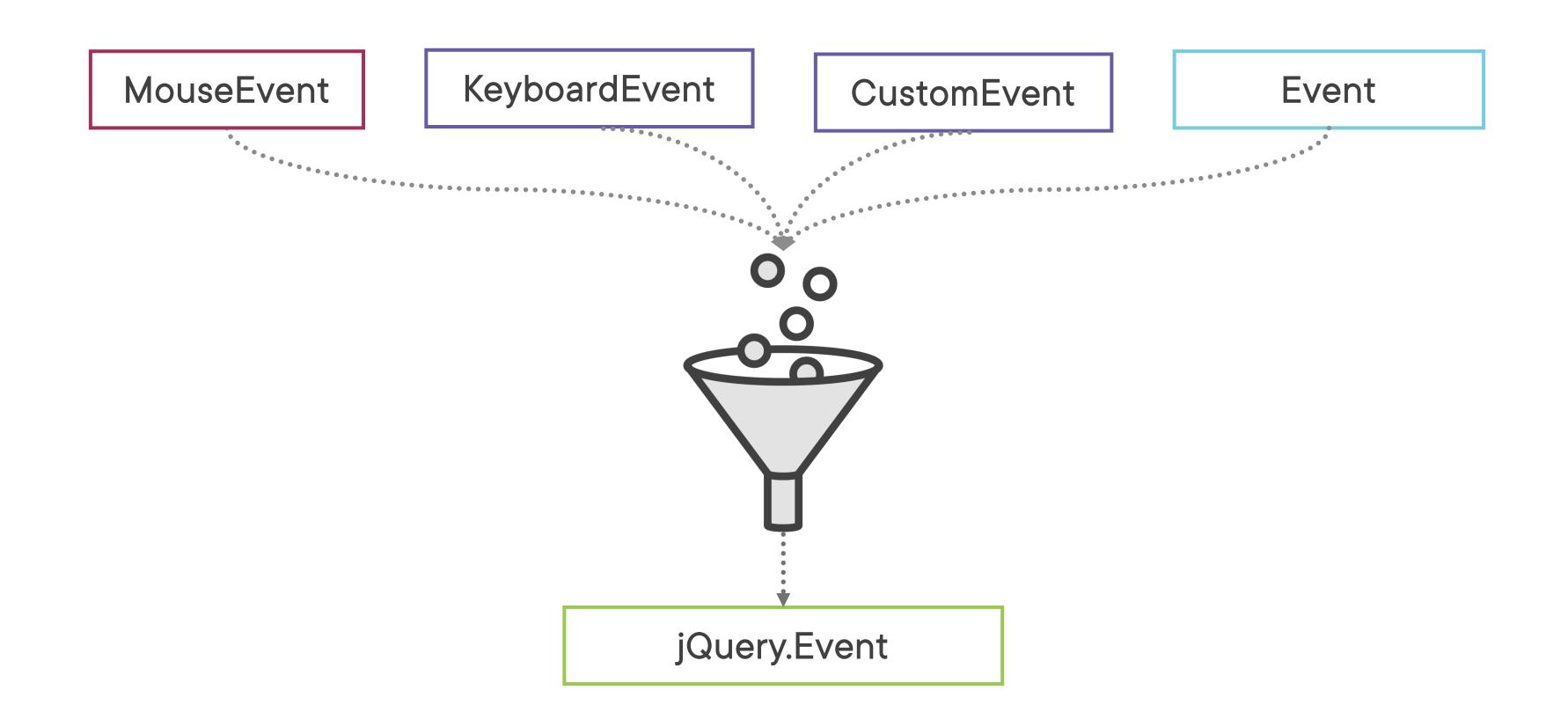
Overview



- Introducing the jQuery Event Object
- Attaching jQuery Event Handlers
- Removing jQuery Event Handlers
- Creating and Triggering jQuery Events
- Namespacing jQuery Events
- Understanding jQuery Event Helpers
- Understanding the Document Ready Event

Introducing the jQuery Event Object

jQuery Event Object



Normalized jQuery Event Properties

event.data event.delegateTarge event.metaKey event.namespace event.pageX event.pageY event.relatedTarget event.result event.which

jQuery Event Object Passthrough

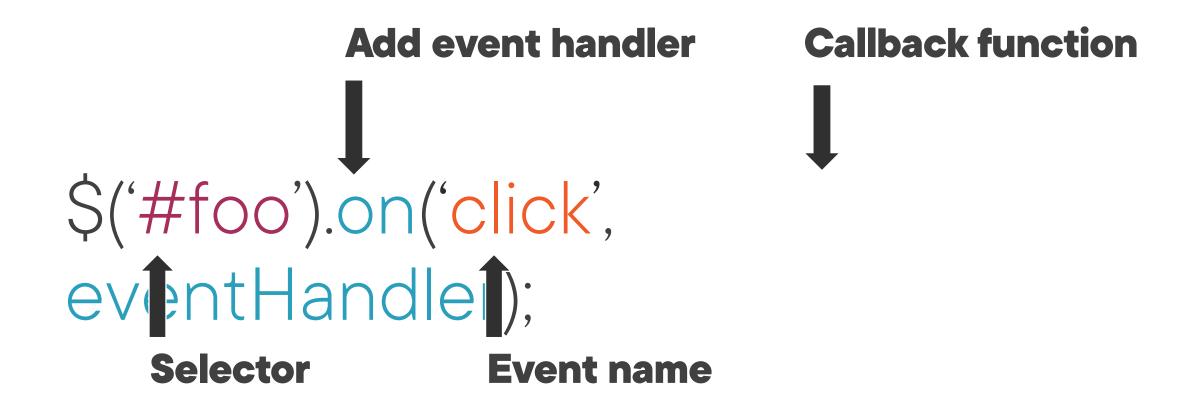
event.originalEvent

Attaching jQuery Event Handlers

Add Event Handlers

.on() .one()

Add Event Handler



Add Event Handler to Multiple Events

Callback function

```
$('#foo').on('click keyup',
eventHandlei);
Event name(s)
(space-separated)
```

Native Browser vs. jQuery

Native Browser

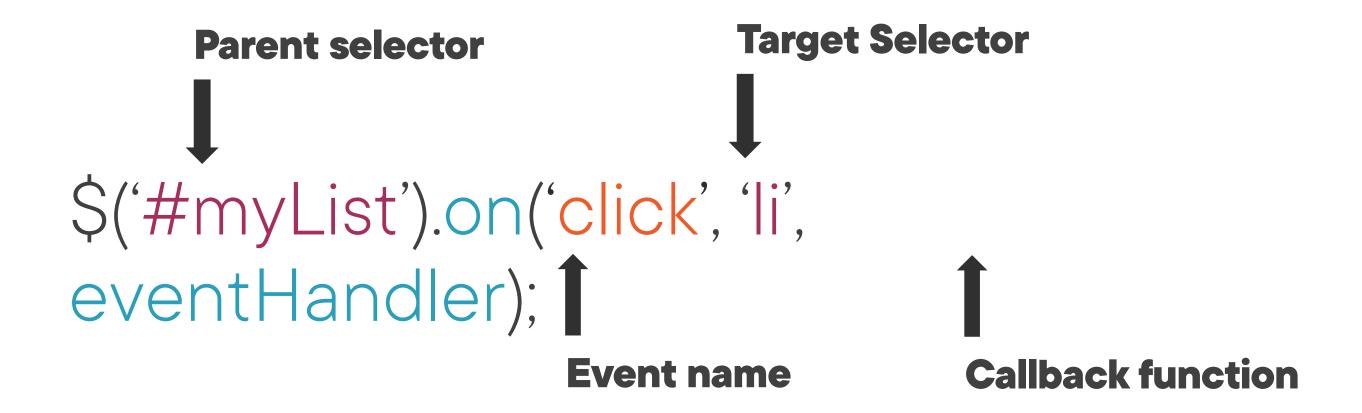
```
const handler = event => { };
const btn = document
    .getElementById('btnClickMe');
btn.addEventListener('click', handler);
btn.addEventListener('keyup', handler);
```

jQuery

```
const handler = event => { };
$('#btnClickMe')

.on('click keyup', handler);
```

Add Delegated Event Handler



Passing Data To Event Handlers

```
Data object

$('#foo').on('click', { foo: bar }, eventHandler);

1

Event name

Callback function
```

jQuery Passing Event Data

index.html

```
<html>
  <head></head>
  <body>
    <main>
     <div>
       <input
         id="clickMe"
         type="button"
         value="Click Me">
     </div>
    </main>
  </body>
</html>
```

jQuery

jQuery does NOT support adding event handlers during the capturing phase.

Handle One Single Event

```
Add single event handler Callback function

$('#foo').one('click', eventHandler);

$ Selector Event name
```

Handle One Single Event Per Event Type

Callback function

```
$('#foo').one ('click keyup', eventHandler);
```

Event name(s) (space-separated)

Native Browser vs. jQuery

Native Browser

```
const btn = document
  .getElementById('btnClickMe');
const eventHandler = event => {
  btn.removeEventListener(event.type,
    eventHandler);
  /* do stuff here */
btn.addEventListener('click', eventHandler);
btn.addEventListener('keyup',eventHandler);
```

jQuery

```
const eventHandler = event => { };
$('#btnClickMe')

.one('click keyup', eventHandler);
```

Removing jQuery Event Handlers

Remove Event Handlers

.off()

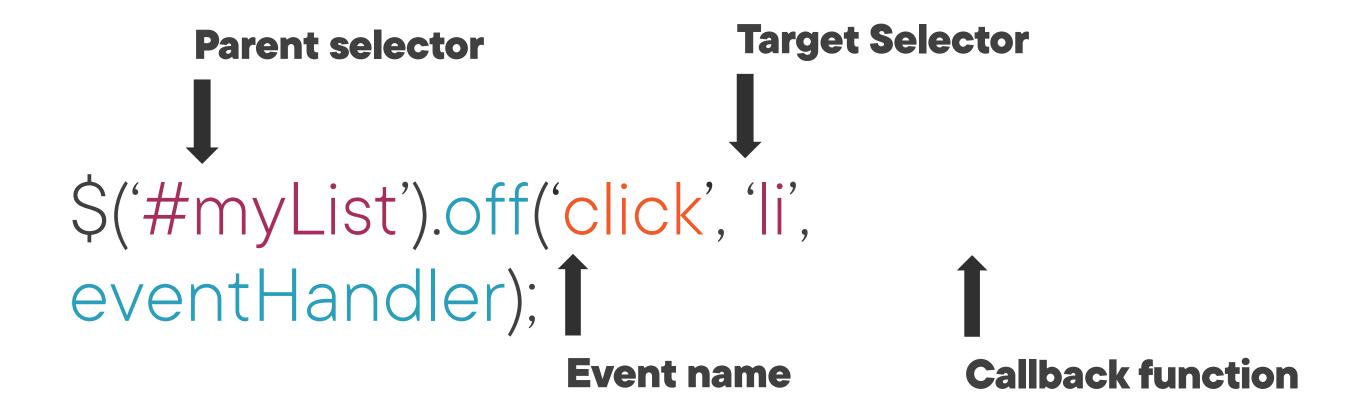
Remove Specific Event Handler

```
Remove event handler Callback function

$\(\frac{1}{\$foo'}\).off(\(\cdot{click'}\), eventHandler);

$\(\frac{1}{\}\)
Selector Event name
```

Remove Delegated Event Handler



Remove Event Handlers by Name

```
$('#foo').off('click');

1
Event name
```

Remove Event Handlers by Event

```
$('#foo').off(event);

1
jQuery Event
```

Remove All Event Handlers

Native Browser vs. jQuery

Native Browser

```
const handler = event => { };
const btn = document
   .getElementById('btnClickMe')
   .removeEventListener('click', handler);
```

jQuery

```
const handler = event => { };
$('#btnClickMe')
.off('click', handler);
```

Creating and Triggering jQuery Events

Creating jQuery Events

```
jQuery object or alias

const event =
$.Event('click')

Event name
```

Custom Event Properties

```
custom object
const event = $.Event('click', { foo:
bar })

Event name
```

Triggering jQuery Events

```
Trigger event
$('#foo').trigger(event);
$ foo' in the selector in the selector
```

Triggering jQuery Events By Type

```
$('#foo').trigger('click');

Event name
```

Native Browser vs. jQuery

Native Browser

```
const event = new Event('click');
document
   .getElementById('btnClickMe')
   .dispatchEvent(event);
```

jQuery

```
const event = $.Event('click')
$('#btnClickMe')
.trigger(event);
```

Triggering jQuery Events with More Data

```
Object or array
$\(\frac{1}{\pmo}\) ('\text{click'}, '\text{bar'});
$\(\frac{1}{\pmo}\)
Event name
```

Triggering Event Handler Arguments

```
$('#foo').trigger('click', ['bar', true, . . . ]);
function eventHandler(event, arg1, arg2, ...
.argN) {
```

Passing Event Handler Data

index.html

```
<html>
  <head></head>
  <body>
    <main>
     <div>
       <input
         id="clickMe"
         type="button"
         value="Click Me">
     </div>
    </main>
  </body>
</html>
```

jQuery

```
const eventHandler = (event, ...args) => {
  console.log(JSON.stringify(args, null, 2));
};
$('#clickMe')
  .on('click', eventHandler)
  .trigger('click', ['foo', 'bar']);
```

Triggering Target Event Handlers

```
Dispatch event

$('#foo').triggerHandler('click')

;

Selector Event name
```

Trigger Handler Signatures

```
$('#foo').triggerHandler();
$('#foo').triggerHandler('click');
$('#foo').triggerHandler(event);
$('#foo').triggerHandler('click',
[...args]);
```

Namespacing jQuery Events

Add Event Handler

```
$('#foo').on('click',
eventHandle1);
Event name
```

Remove Event Handler

```
$('#foo').off('click');

1
Event name
```

Namespace Event Handler

```
$('#foo').on('click.fancy',
eventHandlet);

Event name
```

Remove Event Handler

```
$('#foo').off('click.fancy');

Event name

Event name
```

Remove Event Handlers

Event namespace \$\\$\\$(\frac{1}{4}\triancy');\$\$

Trigger Event Handler

```
$('#foo').trigger('click.fancy');

Event name

Event namespace

$ ('#foo').trigger('click.fancy')

Event name
```

Understanding jQuery Event Helpers

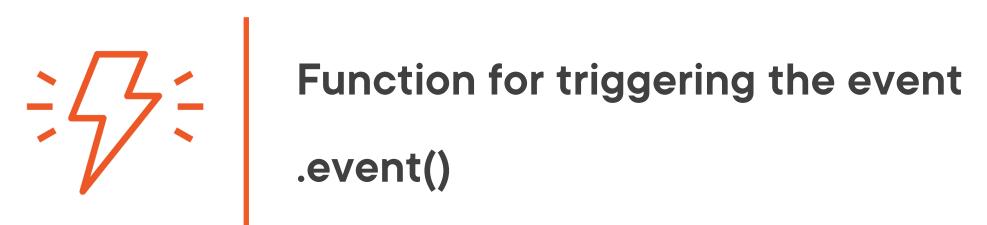
Event Helper Pattern



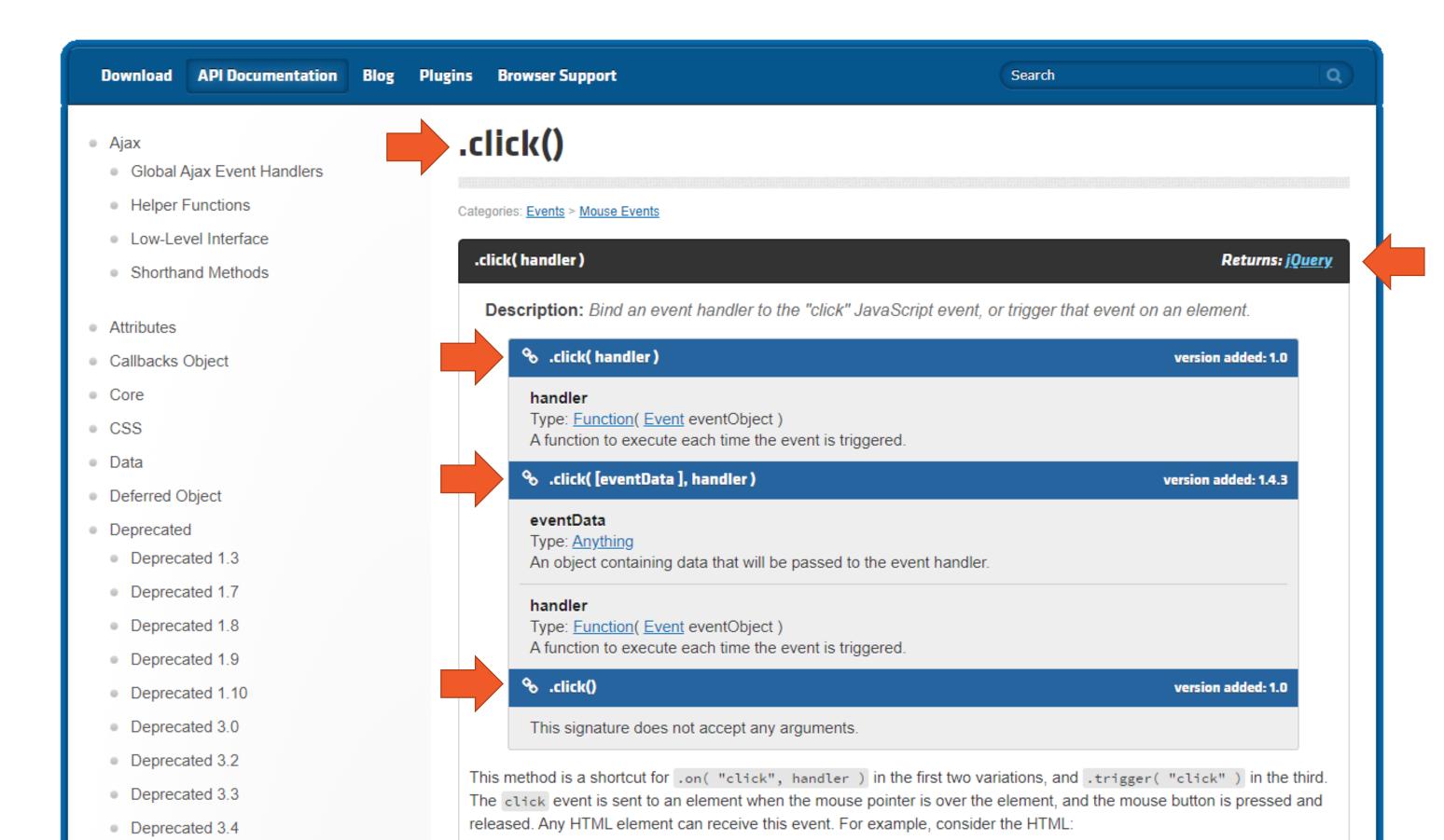
Function for adding a callback function .event(eventHandler)



Function for adding custom data, and a callback function event(data, eventHandler)



Referencing jQuery API Documentation



Adding Event Handlers

```
Add event handler

$('#foo').click(eventHandler);

$ Selector Callback function
```

Passing Data To Event Handlers

Callback function

```
$('#foo').click({ name: 'foo' }, eventHandler);
```

Data object

Triggering Events

```
Trigger event

$('#foo').click()
;
Selector
```

Understanding the Document Ready Event

Document Ready

```
.ready()
jQuery.read
y
```

Document Ready Event Handler

```
$\frac{\text{document reference}}{\text{Callback function}} \frac{\text{$\text{document}}}{\text{candy(function() { });}} \frac{\text{$\text{Ready event handler}}}{\text{$\text{Ready event handler}}}
```

Equivalent Ready Event Handlers

```
$(document).ready(() => { });
$().ready(() => { });
$(() => { });
```

The One Way to Be Ready

```
$(() => {
    /* ALL your code are belong here
*/
});
```

Promise to Be Ready

```
$.ready.then(() => {
    /* ALL your async code are belong
here */
});
```

Understanding the Document Ready Event

Document Ready

```
.ready()
jQuery.read
y
```

Document Ready Event Handler

```
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