

# Routes

In Sinatra, a route is an HTTP method paired with a URL-matching pattern. Each route is associated with a block:

```
get '/' do
  .. show something ..
end

post '/' do
  .. create something ..
end

put '/' do
  .. replace something ..
end

patch '/' do
  .. modify something ..
end

delete '/' do
  .. annihilate something ..
end

options '/' do
  .. appease something ..
end

link '/' do
  .. affiliate something ..
end

unlink '/' do
  .. separate something ..
end
```

Routes are matched in the order they are defined. The first route that matches the request is invoked.

Route patterns may include named parameters, accessible via the `params` hash:

```
get '/hello/:name' do
  # matches "GET /hello/foo" and "GET /hello/bar"
  # params['name'] is 'foo' or 'bar'
  "Hello #{params['name']}!"
end
```

You can also access named parameters via block parameters:

```
get '/hello/:name' do |n|
  # matches "GET /hello/foo" and "GET /hello/bar"
  # params['name'] is 'foo' or 'bar'
  # n stores params['name']
  "Hello #{n}!"
end
```

Route patterns may also include splat (or wildcard) parameters, accessible via the `params['splat']` array:

```
get '/say/*/to/*' do
  # matches /say/hello/to/world
  params['splat'] # => ["hello", "world"]
end

get '/download/*.*' do
  # matches /download/path/to/file.xml
  params['splat'] # => ["path/to/file", "xml"]
end
```

Or with block parameters:

```
get '/download/*.*' do |path, ext|
  [path, ext] # => ["path/to/file", "xml"]
end
```

Route matching with Regular Expressions:

```
get /\A\/hello\/([\w]+\)\z/ do
  "Hello, #{params['captures'].first}!"
end
```

Or with a block parameter:

```
get %r{/hello/([\w]+)} do |c|
  # Matches "GET /meta/hello/world", "GET /hello/world/1234" etc.
  "Hello, #{c}!"
end
```

Route patterns may have optional parameters:

```
get '/posts.?:format?' do
  # matches "GET /posts" and any extension "GET /posts.json", "GET /posts.xml" etc.
```

```
end
```

Routes may also utilize query parameters:

```
get '/posts' do
  # matches "GET /posts?title=foo&author=bar"
  title = params['title']
  author = params['author']
  # uses title and author variables; query is optional to the /posts route
end
```

By the way, unless you disable the path traversal attack protection (see below), the request path might be modified before matching against your routes.

## Passing

A route can punt processing to the next matching route using `pass`:

```
get '/guess/:who' do
  pass unless params['who'] == 'Frank'
  'You got me!'
end

get '/guess/*' do
  'You missed!'
end
```

The route block is immediately exited and control continues with the next matching route. If no matching route is found, a 404 is returned.

## Triggering Another Route

Sometimes `pass` is not what you want, instead you would like to get the result of calling another route. Simply use `call` to achieve this:

```
get '/foo' do
  status, headers, body = call env.merge("PATH_INFO" => '/bar')
  [status, headers, body.map(&:upcase)]
end

get '/bar' do
  "bar"
end
```

Note that in the example above, you would ease testing and increase performance by simply moving `"bar"` into a helper used by both `/foo` and `/bar`.

If you want the request to be sent to the same application instance rather than a duplicate, use `call!` instead of `call`.

Check out the Rack specification if you want to learn more about `call`.