HTTP Requests

Accessing The Request

To obtain an instance of the current HTTP request via dependency injection, you should type-hint the `Illuminate\Http\Request` class on your controller method. The incoming request instance will automatically be injected by the service container:

```
<?php

namespace App\Http\Controllers;

use Illuminate\Http\Request;

class UserController extends Controller
{
    /**
     * Store a new user.
     *
     * @param  Request  $request
     * @return Response
     */
    public function store(Request $request)
    {
        $name = $request->input('name');

        //
    }
}
```

Dependency Injection & Route Parameters

If your controller method is also expecting input from a route parameter you should list your route parameters after your other dependencies. For example, if your route is defined like so:

```
Route::put('user/{id}', 'UserController@update');
```

You may still type-hint the `Illuminate\Http\Request` and access your route parameter `id` by defining your controller method as follows:

```
<?php

namespace App\Http\Controllers;

use Illuminate\Http\Request;

class UserController extends Controller
{
    /**
     * Update the specified user.
     *
     * @param  Request  $request
     * @param  string  $id
     * @return Response
     */
    public function update(Request $request, $id)
    {
        //
    }
}
```

Accessing The Request Via Route Closures

You may also type-hint the `Illuminate\Http\Request` class on a route Closure. The

service container will automatically inject the incoming request into the Closure when it is executed:

```
use Illuminate\Http\Request;

Route::get('/', function (Request $request) {
    //
});
```

Request Path & Method

The `Illuminate\Http\Request` instance provides a variety of methods for examining the HTTP request for your application and extends the `Symfony\Component\HttpFoundation\Request` class. We will discuss a few of the most important methods below.

Retrieving The Request Path

The `path` method returns the request's path information. So, if the incoming request is targeted at `http://domain.com/foo/bar`, the `path` method will return `foo/bar`:

```
$uri = $request->path();
```

The `is` method allows you to verify that the incoming request path matches a given pattern. You may use the `*` character as a wildcard when utilizing this method:

```
if ($request->is('admin/*')) {
    //
}
```

Retrieving The Request URL

To retrieve the full URL for the incoming request you may use the `url` or `fullUrl` methods. The `url` method will return the URL without the query string, while the `fullUrl` method includes the query string:

```
// Without Query String...
$url = $request->url();

// With Query String...
$url = $request->fullUrl();
```

Retrieving The Request Method

The `method` method will return the HTTP verb for the request. You may use the `isMethod` method to verify that the HTTP verb matches a given string:

```
$method = $request->method();

if ($request->isMethod('post')) {
    //
}
```

PSR-7 Requests

The PSR-7 standard specifies interfaces for HTTP messages, including requests and responses. If you would like to obtain an instance of a PSR-7 request instead of a Laravel request, you will first need to install a few libraries. Laravel uses the *Symfony HTTP Message Bridge* component to convert typical Laravel requests and responses into PSR-7 compatible implementations:

```
composer require symfony/psr-http-message-bridge
composer require zendframework/zend-diactoros
```

Once you have installed these libraries, you may obtain a PSR-7 request by type-hinting the request interface on your route Closure or controller method:

```
use Psr\Http\Message\ServerRequestInterface;

Route::get('/', function (ServerRequestInterface $request) {
    //
});
```

If you return a PSR-7 response instance from a route or controller, it will automatically be converted back to a

Laravel response instance and be displayed by the framework.

Input Trimming & Normalization

By default, Laravel includes the `TrimStrings` and `ConvertEmptyStringsToNull` middleware in your application's global middleware stack. These middleware are listed in the stack by the `App\Http\Kernel` class. These middleware will automatically trim all incoming string fields on the request, as well as convert any empty string fields to `null`. This allows you to not have to worry about these normalization concerns in your routes and controllers.

If you would like to disable this behavior, you may remove the two middleware from your application's middleware stack by removing them from the `$middleware` property of your `App\Http\Kernel` class.

Retrieving Input

Retrieving All Input Data

You may also retrieve all of the input data as an `array` using the `all` method:

```
$input = $request->all();
```

Retrieving An Input Value

Using a few simple methods, you may access all of the user input from your `Illuminate\Http\Request` instance without worrying about which HTTP verb was used for the request. Regardless of the HTTP verb, the `input` method may be used to retrieve user input:

```
$name = $request->input('name');
```

You may pass a default value as the second argument to the `input` method. This value will be returned if the requested input value is not present on the request:

```
$name = $request->input('name', 'Sally');
```

When working with forms that contain array inputs, use "dot" notation to access the arrays:

```
$name = $request->input('products.0.name');

$names = $request->input('products.*.name');
```

You may call the `input` method without any arguments in order to retrieve all of the input values as an associative array:

```
$input = $request->input();
```

Retrieving Input From The Query String

While the `input` method retrieves values from entire request payload (including the query string), the `query` method will only retrieve values from the query string:

```
$name = $request->query('name');
```

If the requested query string value data is not present, the second argument to this method will be returned:

```
$name = $request->query('name', 'Helen');
```

You may call the `query` method without any arguments in order to retrieve all of the query string values as an associative array:

```
$query = $request->query();
```

Retrieving Input Via Dynamic Properties

You may also access user input using dynamic properties on the `Illuminate\Http\Request` instance. For example, if one of your application's forms

contains a `name` field, you may access the value of the field like so:

```
$name = $request->name;
```

When using dynamic properties, Laravel will first look for the parameter's value in the request payload. If it is not present, Laravel will search for the field in the route parameters.

Retrieving JSON Input Values

When sending JSON requests to your application, you may access the JSON data via the `input` method as long as the `Content-Type` header of the request is properly set to `application/json`. You may even use "dot" syntax to dig into JSON arrays:

```
$name = $request->input('user.name');
```

Retrieving A Portion Of The Input Data

If you need to retrieve a subset of the input data, you may use the `only` and `except` methods. Both of these methods accept a single `array` or a dynamic list of arguments:

```
$input = $request->only(['username', 'password']);

$input = $request->only('username', 'password');

$input = $request->except(['credit_card']);

$input = $request->except('credit_card');
```

The `only` method returns all of the key / value pairs that you request; however, it will not return key / value pairs that are not present on the request.

Determining If An Input Value Is Present

You should use the `has` method to determine if a value is present on the request. The `has` method returns `true` if the value is present on the request:

```
if ($request->has('name')) {
    //
}
```

When given an array, the `has` method will determine if all of the specified values are present:

```
if ($request->has(['name', 'email'])) {
    //
}
```

The `hasAny` method returns `true` if any of the specified values are present:

```
if ($request->hasAny(['name', 'email'])) {
    //
}
```

If you would like to determine if a value is present on the request and is not empty, you may use the `filled` method:

```
if ($request->filled('name')) {
    //
}
```

To determine if a given key is absent from the request, you may use the `missing` method:

```
if ($request->missing('name') {
    //
}
```

Old Input

Laravel allows you to keep input from one request during the next request. This feature is particularly useful for re-populating forms after detecting validation errors. However, if you are using Laravel's included validation features, it is unlikely you will need to manually use these methods, as some of Laravel's built-in validation facilities will call them automatically.

Flashing Input To The Session

The `flash` method on the `Illuminate\Http\Request` class will flash the current input to the session so that it is available during the user's next request to the application:

```
$request->flash();
```

You may also use the `flashOnly` and `flashExcept` methods to flash a subset of the request data to the session. These methods are useful for keeping sensitive information such as passwords out of the session:

```
$request->flashOnly(['username', 'email']);

$request->flashExcept('password');
```

Flashing Input Then Redirecting

Since you often will want to flash input to the session and then redirect to the previous page, you may easily chain input flashing onto a redirect using the `withInput` method:

```
return redirect('form')->withInput();

return redirect('form')->withInput(
    $request->except('password')
);
```

Retrieving Old Input

To retrieve flashed input from the previous request, use the `old` method on the `Request` instance. The `old` method will pull the previously flashed input data from the session:

```
$username = $request->old('username');
```

Laravel also provides a global `old` helper. If you are displaying old input within a Blade template, it is more convenient to use the `old` helper. If no old input exists for the given field, `null` will be returned:

```
<input type="text" name="username" value="{{ old('username') }}">
```

Cookies

Retrieving Cookies From Requests

All cookies created by the Laravel framework are encrypted and signed with an authentication code, meaning they will be considered invalid if they have been changed by the client. To retrieve a cookie value from the request, use the `cookie` method on a `Illuminate\Http\Request` instance:

```
$value = $request->cookie('name');
```

Alternatively, you may use the `Cookie` facade to access cookie values:

```
use Illuminate\Support\Facades\Cookie;

$value = Cookie::get('name');
```

Attaching Cookies To Responses

You may attach a cookie to an outgoing `Illuminate\Http\Response` instance using the `cookie` method. You should pass the name, value, and number of minutes the cookie should be considered valid to this method:

```
return response('Hello World')->cookie(
    'name', 'value', $minutes
);
```

The `cookie` method also accepts a few more arguments which are used less

frequently. Generally, these arguments have the same purpose and meaning as the arguments that would be given to PHP's native setcookie method:

```
return response('Hello World')->cookie(
    'name', 'value', $minutes, $path, $domain, $secure, $httpOnly
);
```

Alternatively, you can use the `Cookie` facade to "queue" cookies for attachment to the outgoing response from your application. The `queue` method accepts a `Cookie` instance or the arguments needed to create a `Cookie` instance. These cookies will be attached to the outgoing response before it is sent to the browser:

```
Cookie::queue(Cookie::make('name', 'value', $minutes));

Cookie::queue('name', 'value', $minutes);
```

Generating Cookie Instances

If you would like to generate a `Symfony\Component\HttpFoundation\Cookie` instance that can be given to a response instance at a later time, you may use the global `cookie` helper. This cookie will not be sent back to the client unless it is attached to a response instance:

```
$cookie = cookie('name', 'value', $minutes);

return response('Hello World')->cookie($cookie);
```

Files

Retrieving Uploaded Files

You may access uploaded files from a `Illuminate\Http\Request` instance using the `file` method or using dynamic properties. The `file` method returns an instance of the `Illuminate\Http\UploadedFile` class, which extends the PHP `SplFileInfo` class and provides a variety of methods for interacting with the file:

```
$file = $request->file('photo');

$file = $request->photo;
```

You may determine if a file is present on the request using the `hasFile` method:

```
if ($request->hasFile('photo')) {
    //
}
```

Validating Successful Uploads

In addition to checking if the file is present, you may verify that there were no problems uploading the file via the `isValid` method:

```
if ($request->file('photo')->isValid()) {
    //
}
```

File Paths & Extensions

The `UploadedFile` class also contains methods for accessing the file's fully-qualified path and its extension. The `extension` method will attempt to guess the file's extension based on its contents. This extension may be different from the extension that was supplied by the client:

```
$path = $request->photo->path();

$extension = $request->photo->extension();
```

Other File Methods

There are a variety of other methods available on `UploadedFile` instances. Check out the API documentation for the class for more information regarding these methods.

Storing Uploaded Files

To store an uploaded file, you will typically use one of your configured filesystems. The `UploadedFile` class has a `store` method which will move an uploaded file to one of your disks, which may be a location on your local filesystem or even a cloud storage

location like Amazon S3.

The `store` method accepts the path where the file should be stored relative to the filesystem's configured root directory. This path should not contain a file name, since a unique ID will automatically be generated to serve as the file name.

The `store` method also accepts an optional second argument for the name of the disk that should be used to store the file. The method will return the path of the file relative to the disk's root:

```
$path = $request->photo->store('images');

$path = $request->photo->store('images', 's3');
```

If you do not want a file name to be automatically generated, you may use the `storeAs` method, which accepts the path, file name, and disk name as its arguments:

```
$path = $request->photo->storeAs('images', 'filename.jpg');

$path = $request->photo->storeAs('images', 'filename.jpg', 's3');
```

Configuring Trusted Proxies

When running your applications behind a load balancer that terminates TLS / SSL certificates, you may notice your application sometimes does not generate HTTPS links. Typically this is because your application is being forwarded traffic from your load balancer on port 80 and does not know it should generate secure links.

To solve this, you may use the `App\Http\Middleware\TrustProxies` middleware that is included in your Laravel application, which allows you to quickly customize the load balancers or proxies that should be trusted by your application. Your trusted proxies should be listed as an array on the `$proxies` property of this middleware. In addition to configuring the trusted proxies, you may configure the proxy `$headers` that should be trusted:

```
<?php

namespace App\Http\Middleware;

use Fideloper\Proxy\TrustProxies as Middleware;
use Illuminate\Http\Request;

class TrustProxies extends Middleware
{
    /**
     * The trusted proxies for this application.
     *
     * @var array
     */
    protected $proxies = [
        '192.168.1.1',
        '192.168.1.2',
    ];

    /**
     * The headers that should be used to detect proxies.
     *
     * @var string
     */
    protected $headers = Request::HEADER_X_FORWARDED_ALL;
}
```

If you are using AWS Elastic Load Balancing, your `$headers` value should be `Request::HEADER_X_FORWARDED_AWS_ELB`. For more information on the constants that may be used in the `$headers` property, check out Symfony's documentation on trusting proxies.

Trusting All Proxies

If you are using Amazon AWS or another "cloud" load balancer provider, you may not know the IP addresses of your actual balancers. In this case, you may use `*` to trust all proxies:

```
/**
 * The trusted proxies for this application.
 *
 * @var array
```

```
 */
protected $proxies = '*';
```

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