Laravel - Routing

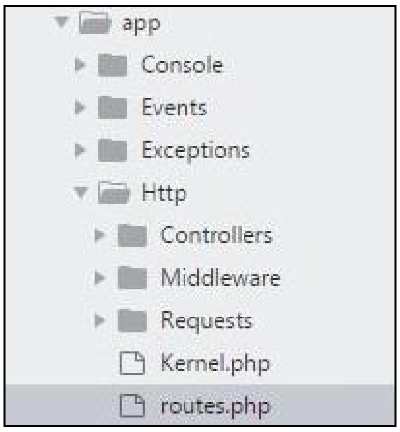
In Laravel, all requests are mapped with the help of routes. Basic routing routes the request to the associated controllers. This chapter discusses routing in Laravel.

Routing in Laravel includes the following categories –

- Basic Routing
- Route parameters
- Named Routes

Basic Routing

All the application routes are registered within the **app/routes.php** file. This file tells Laravel for the URIs it should respond to and the associated controller will give it a particular call. The sample route for the welcome page can be seen as shown in the screenshot given below –



```
Route::get ('/', function () {
   return view('welcome');});
```

Example

Observe the following example to understand more about Routing –

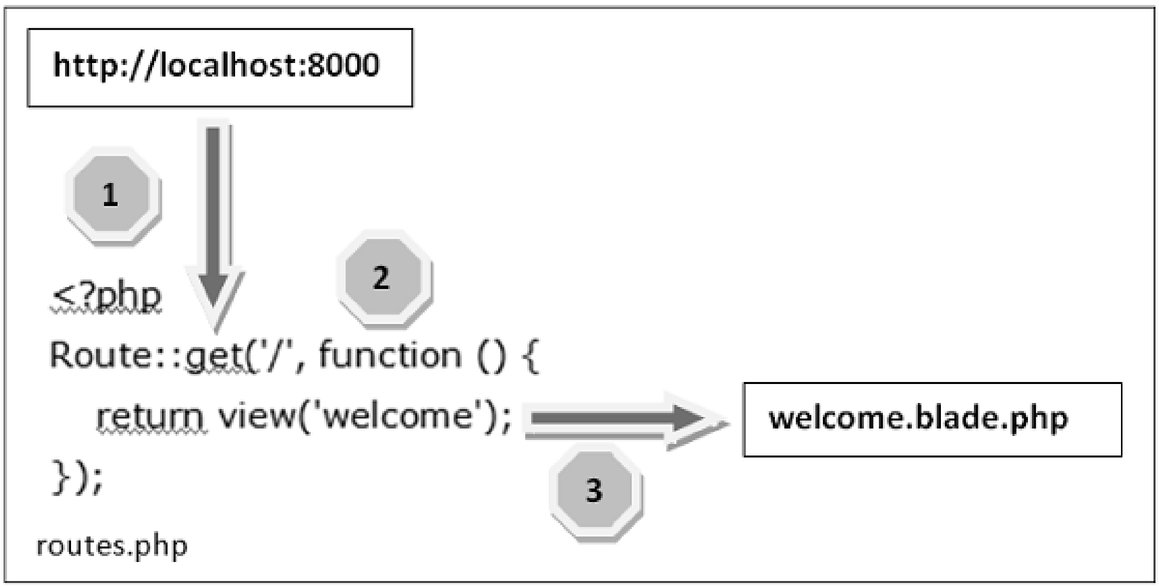
app/Http/routes.php

```
<?php
Route::get('/', function () {
   return view('welcome');
});
```

resources/view/welcome.blade.php

```
<!DOCTYPE html>
<html>
   <head>
      <title>Laravel</title>
      <link href = "https://fonts.googleapis.com/css?family=Lato:100" rel = "
         type = "text/css">

      <style>
         html, body {
            height: 100%;
         }
         body {
            margin: 0;
            padding: 0;
            width: 100%;
            display: table;
            font-weight: 100;
            font-family: 'Lato';
         }
         .container {
            text-align: center;
            display: table-cell;
            vertical-align: middle;
         }
         .content {
            text-align: center;
            display: inline-block;
         }
         .title {
            font-size: 96px;
         }
      </style>
   </head>

   <body>
      <div class = "container">

         <div class = "content">
            <div class = "title">Laravel 5.1</div>
         </div>

      </div>
   </body>
</html>
```

The routing mechanism is shown in the image given below –



```
<?php
Route::get('/', function () {
   return view('welcome');
});
```

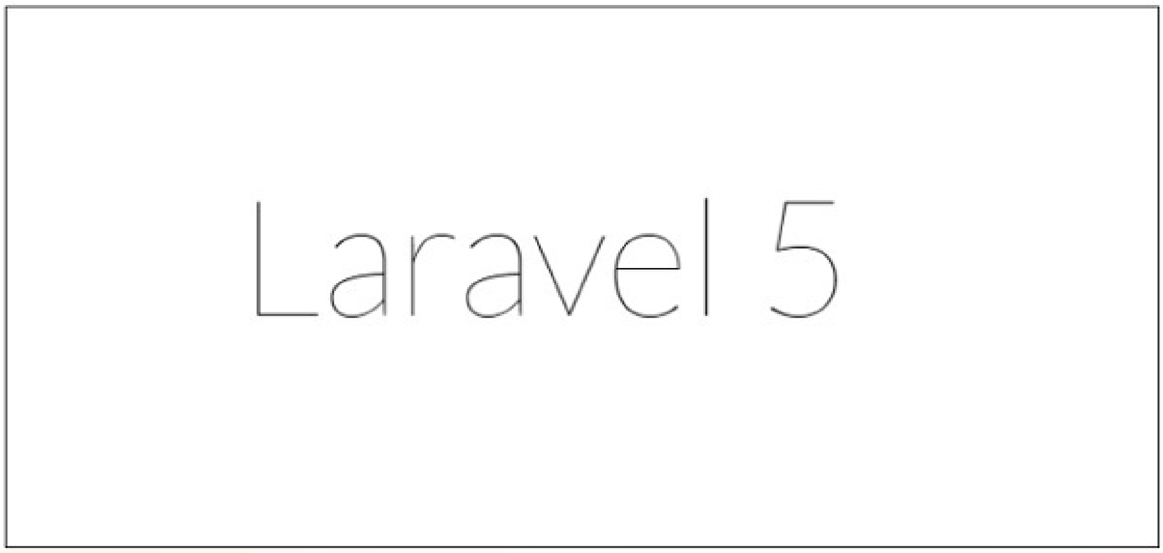
Let us now understand the steps involved in routing mechanism in detail –

Step 1 – Initially, we should execute the root URL of the application.

Step 2 – Now, the executed URL should match with the appropriate method in the **route.php** file. In the present case, it should match the method and the root ('/') URL. This will execute the related function.

Step 3 – The function calls the template file **resources/views/welcome.blade.php.** Next, the function calls the **view()** function with argument **'welcome'** without using the **blade.php**.

This will produce the HTML output as shown in the image below –



Route Parameters

Sometimes in the web application, you may need to capture the parameters passed with the URL. For this, you should modify the code in **routes.php** file.

You can capture the parameters in **routes.php** file in two ways as discussed here –

Required Parameters

These parameters are those which should be mandatorily captured for routing the web application. For example, it is important to capture the user's identification number from the URL. This can be possible by defining route parameters as shown below –

```
Route::get('ID/{id}',function($id) {
   echo 'ID: '.$id;
});
```

Optional Parameters

Sometimes developers can produce parameters as optional and it is possible with the inclusion of **?** after the parameter name in URL. It is important to keep the default value mentioned as a parameter name. Look at the following example that shows how to define an optional parameter –

```
Route::get('user/{name?}', function ($name = 'TutorialsPoint') { return $name;});
```

The example above checks if the value matches to **TutorialsPoint** and accordingly routes to the defined URL.

Named Routes

Named routes allow a convenient way of creating routes. The chaining of routes can be specified using name method onto the route definition. The following code shows an example for creating named routes with controller –

```
Route::get('user/profile', 'UserController@showProfile')->name('profile');
```

The user controller will call for the function **showProfile** with parameter as **profile**. The parameters use **name** method onto the route definition.