

## Understanding Resource Controllers

| HTTP Method | URI              | Action                         | Controller Method |
|-------------|------------------|--------------------------------|-------------------|
| GET         | /posts           | List all posts                 | index()           |
| GET         | /posts/create    | Show form to create a new post | create()          |
| POST        | /posts           | Store a new post               | store()           |
| GET         | /posts/{id}      | Show a single post             | show(\$id)        |
| GET         | /posts/{id}/edit | Show form to edit a post       | edit(\$id)        |
| PUT/PATCH   | /posts/{id}      | Update a post                  | update(\$id)      |
| DELETE      | /posts/{id}      | Delete a post                  | destroy(\$id)     |

```
php artisan make:controller PostController --resource
```

This creates `app/Http/Controllers/PostController.php` with all the standard CRUD methods.

Define Resource Routes in `web.php` or `api.php`

In `routes/web.php` (for web applications):

```
use App\Http\Controllers\PostController;
```

```
Route::resource('posts', PostController::class);
```

Or in `routes/api.php` (for API applications):

```
Route::apiResource('posts', PostController::class);
```

`apiResource()` excludes `create()` and `edit()` methods since APIs don't need HTML forms.

Implement CRUD Methods in `PostController.php`

Now, let's implement the logic for each method inside `app/Http/Controllers/PostController.php`:

```
public function index()
{
    $posts = Post::all(); // Fetch all posts
    return view('posts.index', compact('posts')); // Return view with posts
}
```

Show Form to Create a Post (create)

```
public function create()
{
    return view('posts.create'); // Show create post form
}
```

Store a New Post (store)

```
public function store(Request $request)
{
    $request->validate([
        'title' => 'required|string|max:255',
        'content' => 'required',
    ]);

    Post::create($request->all());
    return redirect()->route('posts.index')->with('success', 'Post created successfully.');
```

Show a Single Post (show)

```
public function show(Post $post)
{
    return view('posts.show', compact('post'));
}
```

Show Edit Form (edit)

```
public function edit(Post $post)
{
    return view('posts.edit', compact('post'));
}
```

Update a Post (update)

```
public function update(Request $request, Post $post)
{
    $request->validate([
        'title' => 'required|string|max:255',
        'content' => 'required',
    ]);

    $post->update($request->all());

    return redirect()->route('posts.index')->with('success', 'Post updated successfully.');
```

Delete a Post (destroy)

```
public function destroy(Post $post)
```

```
{
```

```
    $post->delete();
```

```
    return redirect()->route('posts.index')->with('success', 'Post deleted successfully.');
```

```
}
```