

How to Assign Roles to Users Dynamically in Laravel

In modern applications, not every user should have the same level of access. For example, an **admin** should be able to manage users, while an **editor** might only create content. Assigning roles dynamically — either during registration, through admin panels, or via business rules — is essential for a scalable permission system.

In this guide, you'll learn **how to assign roles to users dynamically in Laravel 12** using the **Spatie Permissions package**. We'll explore assigning roles via code, through registration, and by building a user-friendly admin interface. Along the way, we'll cover best practices for keeping your role assignments secure and flexible.

1 - Prerequisites

Before continuing, make sure you've installed and set up <u>Spatie Laravel-Permission</u>. This package provides the <u>assignRole()</u> and <u>syncRoles()</u> methods we'll use throughout this tutorial.

2 - Assign Roles in Code

The simplest way to assign a role to a user is directly in code. This might be used in a seeder, controller, or event listener.

// Assign a role

```
$user->assignRole('admin');

// Assign multiple roles
$user->assignRole(['editor', 'moderator']);

// Replace existing roles
$user->syncRoles('user');Code language: PHP (php)
```

assignRole adds a role without touching existing roles. syncRoles replaces all roles with the new ones. These methods can be used wherever you have access to a User instance.

3 - Assign Role on Registration

Often you'll want to assign a default role to every new user, such as user. To do this, modify your registration logic.

```
}Code language: PHP (php)
```

This ensures all new users get a base role automatically. Later, admins can upgrade their roles if needed.

4 - Build an Admin UI to Assign Roles

For real applications, you'll want a user interface where admins can assign or change roles dynamically. Let's add a route, controller, and view for this feature.

```
// routes/web.php
use App\Http\Controllers\Admin\UserRoleController;
Route::middleware(['auth','role:admin'])->group(function () {
    Route::get('/admin/users/{user}/roles',
[UserRoleController::class, 'edit'])->name('admin.users.roles.edit');
    Route::put('/admin/users/{user}/roles',
[UserRoleController::class,
'update'])->name('admin.users.roles.update');
});Code language: PHP (php)
Controller logic:
// app/Http/Controllers/Admin/UserRoleController.php
namespace App\Http\Controllers\Admin;
use App\Http\Controllers\Controller;
use App\Models\User;
use Illuminate\Http\Request;
use Spatie\Permission\Models\Role;
class UserRoleController extends Controller
```

```
{
    public function edit(User $user)
    {
        $roles = Role::all();
        return view('admin.users.roles', compact('user', 'roles'));
    }
    public function update(Request $request, User $user)
    {
        $user->syncRoles($request->roles ?? []);
        return redirect()->back()->with('status','Roles updated
successfully');
}Code language: PHP (php)
Blade view (resources/views/admin/users/roles.blade.php):
@extends('layouts.app')
@section('content')
<div class="container">
  <h2>Assign Roles to {{ $user->name }}</h2>
  <form method="POST" action="{{</pre>
route('admin.users.roles.update',$user) }}">
    @csrf
    @method('PUT')
    @foreach($roles as $role)
      <div class="form-check">
        <input class="form-check-input" type="checkbox" name="roles[]"</pre>
value="{{ $role->name }}"
          {{ $user->hasRole($role->name) ? 'checked' : '' }}>
        <label class="form-check-label">{{ $role->name }}</label>
      </div>
    @endforeach
    <button type="submit" class="btn btn-primary mt-3">Save/button>
```

```
</form>
</div>
@endsectionCode language: HTML, XML (xml)
```

This interface allows an admin to dynamically assign or revoke roles from any user by simply checking/unchecking boxes.

5 - Best Practices

- Always validate role assignments to ensure only admins can change them.
- Use syncRoles() instead of manually deleting/inserting pivot records it's safer and cleaner.
- Seed roles and permissions in migrations or seeders for consistent environments.
- Never allow users to assign their own roles during registration keep role assignment restricted to admin logic or controlled rules.

Wrapping Up

In this guide, we covered how to **assign roles to users dynamically in Laravel 12**. You learned how to assign roles in code, give default roles during registration, and build a UI where admins can update roles with checkboxes. With these tools, your app can grow to support complex role-based access scenarios easily.



What's Next

- <u>Building a Role-Based Admin Panel in Laravel 12</u> take your roles further by managing content and dashboards.
- <u>Creating a User-Friendly Roles & Permissions UI in Laravel</u> polish the front-end experience.
- <u>How to Give and Revoke Permissions to Users in Laravel</u> manage permissions directly from the UI.