

# Laravel Developer Skills Assessment Test

1 - Explain the difference between `Route::get()`, `Route::post()`, and `Route::resource()`. Provide an example of when you would use each.

Ans -

`Route::get()`: Used to fetch or show data

example - `Route::get('/posts', [PostController::class, 'index']);`

`Route::post()`: Used to submit or create data

example- `Route::post('/posts', [PostController::class, 'store']);`

`Route::resource()`: Creates all standard routes for a controller (CRUD)

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

2.What is middleware in Laravel? Write a simple custom middleware to restrict access to users below 18 years of age based on a `birth_date` stored in the user model.

Answer - Middleware is a filter that runs before or after a request hits the controller.

It checks or modifies the request and can allow or deny access.

Block users under 18 based on their birth date.

**Steps:**

1. Create middleware:

`php artisan make:middleware AgeRestriction`

2. In `AgeRestriction.php`:

```

public function handle($request, Closure $next)
{
    $user = $request->user();
    if ($user && \Carbon\Carbon::parse($user->birth_date)->age < 18) {
        return response('Access Denied', 403);
    }
    return $next($request);
}

```

### 3.Register in bootstrap/app.php

```
$middleware->alias([ 'age.restrict' => \App\Http\Middleware\AgeRestriction::class, ]);
```

### 4.Use it:

```

Route::get('/restricted', function () {
    return 'Welcome adult!';
})->middleware(['auth:sanctum', 'age.restrict']);

```

Q3. What are relationships in Eloquent? Explain the difference between `hasMany` and `belongsTo` with examples.

Answer - Relationships help link database tables using models.

### hasMany: One-to-Many

Used when a model owns many of another model.

Example: A User has many Posts

```

public function posts()
{
    return $this->hasMany(Post::class);
}

```

Use: `$user->posts`; returns all posts by the user.

belongsTo: Inverse of hasMany

Used when a model belongs to another model.

Example: A Post belongs to a User

```
// In Post.php  
public function user()  
{  
    return $this->belongsTo(User::class);  
}
```

Use: `$post->user` ; returns the user who created the post.

Q4 - What are Blade directives? Provide examples of `@if`, `@foreach`, and a custom directive.

Answer - Used in Laravel views (Blade files) to simplify code.

`@if:`

`@if($user->isAdmin)`

    Welcome Admin

`@endif`

`@foreach:`

`@foreach($posts as $post)`

    {{ \$post->title }}

`@endforeach`

Custom Directive (in `AppServiceProvider.php`):

`Blade::directive('datetime', function ($date) {`

    return "<?php echo (\$date)->format('d M Y'); ?>";

`});`

Use - @datetime(\$post->created\_at)

Q 5 - How does Laravel's built-in authentication system work? What command would you use to scaffold authentication, and what files are generated?

Answer - We can quickly set up login/register using Laravel Breeze.

```
composer require laravel/breeze --dev
```

```
php artisan breeze:install
```

```
npm install && npm run dev
```

```
php artisan migrate
```

Files Generated:

- **Routes:** routes/web.php, routes/api.php, routes/auth.php
- **Views:** resources/views/auth/, resources/views/layouts/
- **Controllers:** App\Http\Controllers\Auth\\*
- **Models:** User.php uses Laravel's built-in traits
- **Middleware:** Auth middleware is used to protect routes

Auth Workflow:

1. Registration → User created
2. Login → Session or Token generated
3. Middleware (auth) protects routes
4. Password resets, logout, etc., also available

