

# AJAX IN LARAVEL

Below is a step-by-step tutorial for building an Ajax-powered application using Laravel. We'll create a simple task management system where users can add and delete tasks without refreshing the page.

## **# Step 1: Set Up Laravel Project**

```
```bash
composer create-project --prefer-dist laravel/laravel ajax-laravel
cd ajax-laravel
```
```

## **# Step 2: Create Task Model and Migration**

```
```bash
php artisan make:model Task -m
```
```

Open the generated migration file (located in `database/migrations`) and define the `tasks` table schema:

```
```php
```

```
// database/migrations/{timestamp}_create_tasks_table.php
```

```
public function up()
{
    Schema::create('tasks', function (Blueprint $table) {
        $table->id();
        $table->string('name');
        $table->timestamps();
    });
}
...
```

Run the migration to create the `tasks` table:

```
``bash
php artisan migrate
...
```

### **# Step 3: Create Task Controller**

```
``bash
php artisan make:controller TaskController
```

```
...
```

Define the controller methods for handling tasks in  
`app/Http/Controllers/TaskController.php`.

## # Step 4: Set Up Routes

Define the routes in `routes/web.php`:

```
```php
```

```
// routes/web.php
```

```
use App\Http\Controllers\TaskController;
```

```
Route::get('/', [TaskController::class, 'index']);
```

```
Route::post('/tasks', [TaskController::class, 'store']);
```

```
Route::delete('/tasks/{task}', [TaskController::class, 'destroy']);
```

```
...
```

## # Step 5: Create Blade View

Create a Blade view in `resources/views/tasks.blade.php` to display tasks and the form for adding new tasks.

## # Step 6: Implement Ajax

Add jQuery (or any other preferred JavaScript library) to your project. Include it in your Blade view.

Implement JavaScript code to handle Ajax requests for adding and deleting tasks without page reload.

## # Code Format:

Task Model and Migration:

```
```php
```

```
// app/Models/Task.php
```

```
namespace App\Models;
```

```
use Illuminate\Database\Eloquent\Factories\HasFactory;
```

```
use Illuminate\Database\Eloquent\Model;
```

```
class Task extends Model
```

```
{
```

```
        use HasFactory;

        protected $fillable = ['name'];
    }
    ...
```

## # Task Controller:

```
```php
// app/Http/Controllers/TaskController.php
```

```
namespace App\Http\Controllers;
```

```
use Illuminate\Http\Request;
```

```
use App\Models\Task;
```

```
class TaskController extends Controller
```

```
{
```

```
    public function index()
```

```
    {
```

```
        $tasks = Task::latest()->get();
```

```
        return view('tasks', compact('tasks'));
    }
}
```

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

    Task::create(['name' => $request->name]);

    return response()->json(['message' => 'Task created
successfully']);
}
```

```
public function destroy(Task $task)
{
    $task->delete();

    return response()->json(['message' => 'Task deleted
successfully']);
}
```

}

}

...