# Prompt: Building Power User UI for Dynamic Process Flows in Laravel

You are building a Laravel 8.75+ application using Spatie Laravel Permissions and a dynamic permission middleware based on:  
https://codeanddeploy.com/blog/laravel/how-to-create-a-custom-dynamic-middleware-for-spatie-laravel-permission  
  
The system features a model-agnostic dynamic process flow module.

## 🔑 Models (with polymorphic support)

Include these models in `app/Models`:

1. ProcessFlow.php

- Tracks definition of a flow and the model it is linked to.  
- Uses morphTo() for `model()` and hasMany for steps and instances.

2. ProcessStep.php

- Belongs to ProcessFlow. Has many actions and conditions.

3. ProcessCondition.php

- Belongs to ProcessStep. Has type and parameter fields.

4. ProcessAction.php

- Belongs to ProcessStep. Similar to condition.

5. ProcessInstance.php

- Tracks current step and completion. Morph to `model()` and belongs to flow and step.

6. ProcessLog.php

- Logs step completions with optional notes and metadata.

## 🧠 Services (in app/Services/ProcessFlow)

1. ProcessConditionService.php – Evaluates all conditions for a step.

2. ProcessActionService.php – Executes configured actions.

3. ProcessEngineService.php – Orchestrates advancing a step (condition check → action → update step).

## 🧭 Controller

ProcessFlowController.php – Handles advancing a process instance through a secured POST route.

## 🛡️ Middleware

Uses dynamic route-based permission check middleware to protect routes, e.g. `process.advance`.

## 📌 Route

POST /process/advance/{instance}  
→ ProcessFlowController@advance  
→ Route name: 'process.advance'  
→ Middleware: permission (Spatie + route name)

## 🎛️ Power User Interface (for Admins and Planners)

Role-based UI for `admin` and `planning` users to:  
- Create new process flows  
- Add and order steps  
- Attach conditions and actions to each step  
- View flow-to-model linkages

## 🧩 Example Blade UI Snippet

<!-- Create/Edit Flow -->  
<form method="POST" action="{{ route('process\_flows.store') }}">  
 @csrf  
 <input type="text" name="name" placeholder="Flow Name" required>  
 <textarea name="description"></textarea>  
 <select name="model\_type">  
 <option value="App\Models\Activity">Activity</option>  
 <option value="App\Models\PsipName">PsipName</option>  
 </select>  
 <input type="number" name="model\_id" placeholder="Model ID" required>  
 <button type="submit">Save</button>  
</form>  
  
<!-- Steps Table -->  
@foreach($flow->steps as $step)  
 <tr>  
 <td>{{ $step->order }}</td>  
 <td>{{ $step->name }}</td>  
 <td><a href="{{ route('steps.edit', $step) }}">Edit</a></td>  
 </tr>  
@endforeach

The full UI can be built using Laravel Blade + JS modals with bootstrap 5 for dynamic linking of actions and conditions.

## ✅ Use This Prompt

"Please help me build a Power User UI in Laravel (Blade or Livewire) for managing a dynamic process flow system. I have the following in place:  
- Models: ProcessFlow, ProcessStep, ProcessAction, ProcessCondition, ProcessInstance, ProcessLog  
- Services: ProcessConditionService, ProcessActionService, ProcessEngineService  
- Controller: ProcessFlowController@advance  
- Route: POST /process/advance/{instance} with Spatie dynamic permission middleware  
  
I want to allow users with 'admin' (id: 1) and 'planning' (id: 2) roles to:  
1. Create/edit process flows  
2. Add/remove/reorder steps  
3. Assign conditions and actions to steps  
4. Attach flows to Eloquent models (e.g. Activity, PsipName)  
  
Please generate the backend UI and form structure, routes, controllers and Blade files to support this."