Project Requirements Document (PRD)

Project Name

Laravel React Admin Panel

Project Type

Admin Dashboard

Tech Stack

Backend: Laravel 10+
Frontend: React 18+
Database: MySQL (or PostgreSQL)
Auth: Laravel Sanctum or Passport
API: RESTful API
UI Framework: Tailwind CSS or Material UI

Project Objective

To build a scalable, secure, and modular admin dashboard for managing the application's resources, users, roles, permissions, and settings.

Functional Requirements

1. Authentication: Login, Logout, Password reset, Session management
2. User Management: CRUD operations, assign roles, filter/sort users
3. Role & Permission Management: Define roles, assign/manage permissions
4. Dashboard: Overview cards, recent logins/events
5. Settings Panel: Update site-level settings, toggle maintenance mode
6. Activity Logs: Track and view user activities
7. API Integration: RESTful APIs for frontend

Non-Functional Requirements

Responsive design
Secure API (CSRF, CORS, Auth middleware)
Modular codebase
Clear folder structure
Version control with Git

Folder Structure Best Practices

Laravel:
app/Http/Controllers/Api/
app/Models/
routes/api.php, web.php

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React:
src/components/
src/pages/
src/services/
src/hooks/
src/utils/
src/assets/

Setup & Installation Guide

Backend (Laravel):
composer create-project laravel/laravel admin-api
cd admin-api
cp .env.example .env
php artisan key:generate

Update .env with DB config
Install Sanctum
Add Sanctum middleware

Frontend (React):
npx create-react-app admin-frontend
cd admin-frontend
npm install axios react-router-dom tailwindcss
npx tailwindcss init -p
Configure Tailwind and Axios

Auth Flow

1. Laravel handles registration/login via Sanctum
2. React sends API requests to Laravel with credentials
3. Sanctum uses cookies to authenticate requests

Testing

Feature and unit tests in Laravel
Cypress or React Testing Library for frontend

Recommended Packages

Laravel:
- spatie/laravel-permission
- laravel/telescope
- barryvdh/laravel-debugbar

React:
- react-query or swr
- react-toastify

- formik or react-hook-form

Deliverables

Clean and documented Laravel backend
React frontend with routing and auth
Admin features
GitHub repo with readme
Postman collection