

# Standardized Tech Stack

To ensure consistent development quality, maintainability, and smooth onboarding, all Blueprint projects use the following standardized tech Stack.

## Frontend Stack

Component	Docs
React	<a href="https://react.dev/">https://react.dev/</a>
TypeScript	<a href="https://www.typescriptlang.org/docs/">https://www.typescriptlang.org/docs/</a>
Vite	<a href="https://vitejs.dev/guide/">https://vitejs.dev/guide/</a>
TailwindCSS	<a href="https://tailwindcss.com/docs">https://tailwindcss.com/docs</a>

## Frontend Best Practices

- Use functional components + hooks only
- Use Zod for input validation
- Always type props and state - do not default to any
- Keep styling with Tailwind utility classes; avoid writing custom CSS unless necessary

## Backend Stack

Projects use one of:

### Option A: Java + Spring Boot

- [Spring Boot](#)
- [Spring Data JPA](#)

## Best practices

- Use layered architecture: controller -> service -> repository
- Use DTOs to avoid returning raw database entities
- Prefer Postgres types (UUIDs over integers for IDs)

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