

MyCritters Developer Onboarding – Kanban Board Project

Updated: 6/23/2025

Welcome to the MyCritters engineering team! This onboarding project will give you hands-on experience with the exact stack we use every day:

- TypeScript – our language of choice
- React & Next.js (App Router) – UI & full-stack framework
- Tailwind CSS + Shadcn/ui – rapid, accessible styling
- Apollo GraphQL Client & GraphQL Code Generator – typed data layer
- Nhost (Hasura + Postgres) – instant backend, auth, storage, realtime GraphQL

You'll ship a Trello-style kanban board, deployed on Vercel, in 1–2 weeks.

AI is your friend. Use tools like *v0.dev*, *Claude*, or *ChatGPT* for snippets—focus on working features over pixel-perfect polish.

It is recommended to pre-read the entire onboarding document before starting.

0 Project Goals

1. Get productive in TypeScript
2. React hooks & component thinking
3. Use the Next.js App Router for a full-stack app
4. Style with Tailwind + Shadcn/ui
5. Fetch & mutate data via Apollo GraphQL with fully-typed hooks
6. Leverage Nhost for DB, auth, storage, and realtime GraphQL
7. Deliver a kanban board clone deployed on Vercel

1 Prerequisites

Tool	Notes
Windows users install WSL2	If you're on Windows, enable WSL 2 and install Ubuntu so all bash commands run natively. You will want to develop in this Linux environment. Follow Microsoft's setup guide: https://learn.microsoft.com/windows/wsl/install
Package manager	pnpm 10 (use pnpm as a node version manager Install and manage Node.js versions using PNPM)
Node.js	≥ 20 LTS
Git + GitHub account	Create a public repo named kanban-board in your account. (Interactive Git Refresher)
VS Code	Recommended Extensions: dbaeumer.vscode-eslint, esbenp.prettier-vscode, GraphQLvscode-graphql-syntax, hermannplatz.npm-dependency-links, bradlc.vscode-tailwindcss, csstools.postcss, mikestead.dotenv, tamaste.even-better-toml, donjayamanne.githistory, hermannplatz.npm-dependency-links
Nhost account	Cloud Free tier
Discord (MyCritters server)	Join #dev-onboarding channel: https://discord.gg/38zwkH4a Use this discord channel to ask questions if you need help with your onboarding project.

2 TypeScript

Optional if you are already experienced in TypeScript.



Learn (choose one)

- YouTube - TypeScript Tutorial for Beginners
- YouTube - TypeScript Crash Course
- TypeScript Handbook – Intro

3 ReactJS Refresher

Optional if you are already experienced in React.



Learn

- React Official Tutorial

Exercise

Create `<Counter initial={0} />` using `useState` (file `src/components/Counter.tsx`).

🏆 Milestone REACT-READY – commit `src/components/Counter.tsx`.

4 Next.js Introduction

Optional if you are already experienced in Next.



NextJS Docs

Do

1. `npm create-next-app@latest kanban-board --ts --tailwind --app`
`cd kanban-board`
2. Add `src/app/about/page.tsx` page and `src/app/api/hello/route.ts` route.
3. Initialize Shadcn/ui: `npm shadcn-ui@latest init`.

🏆 Milestone NEXT-READY – commit new pages and Shadcn Button demo.

5 Apollo & GraphQL Codegen

Optional if you are already experienced in GraphQL.



GraphQL Codegen Getting Started

Public GraphQL endpoint for practice: <https://countries.trevorblades.com/> (no authentication required).

Install

```
pnpm add @apollo/client @apollo/client-integration-nextjs graphql
pnpm add -D @graphql-codegen/cli @graphql-codegen/typescript @graphql-codegen/typescript-operations @graphql-codegen/typescript-react-apollo
```

Exercise

1. Add `src/graphql/queries.graphql` with:

GraphQL

```
query GetCountries{
  countries {
    code
    name
  }
}
```

Copy

2. Configure `codegen.ts` then run `pnpm graphql-codegen`.
3. Render the query in `src/app/contries/page.tsx`.

🏆 Milestone GQL-READY – commit generated types + `src/app/contries/page.tsx`.

6 Nhost Integration

Optional if you are already experienced in Nhost.



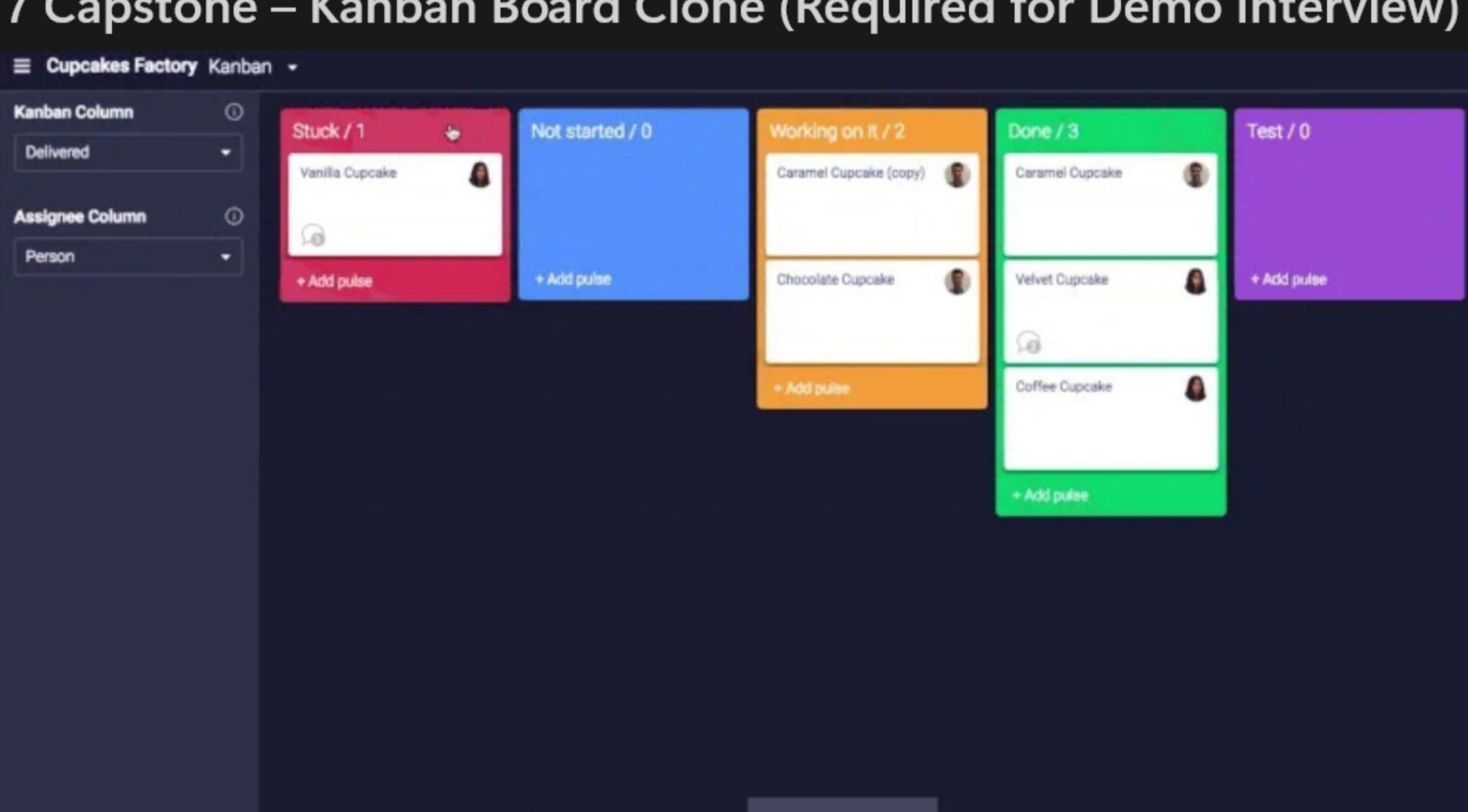
Nhost NextJS Quickstart

Do

1. `npm nhost init` inside repo; enable Email/Password auth.
2. Create tables: `boards`, `columns`, `cards`.
3. Add `src/lib/nhost.ts` and wrap app with `NhostReactProvider` & `ApolloProvider`.
4. Build a basic Board List page using `useBoardsQuery`.

🏆 Milestone NHOST-READY – commit auth flow + board list.

7 Capstone – Kanban Board Clone (Required for Demo Interview)



All work stays in this **kanban-board** repo.

Do NOT clone another kanban project and claim it as your own. It is recommended to use AI to assist in generating your code as this will be a very common practice when you join the team.

Requirements

Feature	Detail
Auth	Nhost email/pass hooks Example: https://github.com/nhost/tree/main/examples/quickstarts/nextjs-server-components
Boards/Columns/Cards	CRUD & drag-n-drop order (use position floats)
Realtime	GraphQL subscriptions for live sync Example: https://github.com/vercel/next.js/tree/canary/examples/with-apollo
Styling	Tailwind + Shadcn/ui Example: https://tailwindcss.com/docs/installation/framework-guides/nextjs
Deployment	Vercel (Hobby)

Implementation Checklist

1. Board list → Board view routing.
 2. Drag & drop (`@hello-pangea/dnd` or `@dnd-kit`).
 3. Subscriptions for multi-client syncing.
 4. Env vars on Vercel (deploying to Vercel needs to know about the Nhost backend).
- 🏆 Milestone KANBAN-FINAL – open a Pull Request to `main` with complete features & updated `README.md`. Merge feature branch to main and verify Vercel has your latest version.

9 Best Practices & Workflow

- Branch naming: `feature/xyz`, `bugfix/xyz`
- Commits: Conventional Commits
- CI (GitHub Actions) – lint, codegen, build (see `.github/workflows/ci.yml` sample below)

```
name: CI
on: [push, pull_request]
jobs:
  build:
    runs-on: ubuntu-latest
    steps:
      - uses: actions/checkout@v3
      - uses: pnpm/action-setup@v2
        with:
          pnpm-version: 8
      - run: pnpm install
      - run: pnpm run lint
      - run: pnpm graphql-codegen
      - run: pnpm run build
```

10 Submission Checklist

- ☐ Milestone KANBAN-FINAL complete
- ☐ Send message in Indeed with GitHub Project URL and running app in Vercel URL.
- ☐ Pick an interview time on Google Calendar <https://calendar.app.google/uwCZm4MRTuUwi8Z2A>.
- ☐ Make sure your webcam and Vercel project are working prior to the interview.
- ☐ Interview where you walk us through your Kanban project. Assuming everything checks out, you will be sent a job offer letter and an NDA that must be signed and sent back.
- ☒ Start your first day — happy coding!

This document may get updated. Do a force refresh to get the latest version.

Windows: `CTRL + Shift + R`

Mac: `Command (⌘) + Shift + R` or `Command (⌘) + Option + R`