Testing Locally with Docker

Using Docker ensures that the environment on your Mac matches exactly what will run on Google Cloud Run.

1. Prerequisites

Ensure **Docker Desktop** is installed and running on your Mac. You should see the whale icon in your top menu bar.

2. Build the Image

Open your terminal inside your project folder (`hiking-dashboard`) and run:

```
docker build -t hiking-dashboard .
```

This will download Node, install your packages, and build the React site into a small, production-ready image.

3. Run the Container

Launch the dashboard locally:

```
docker run -p 8080:8080 hiking-dashboard
```

4. View the Site

Open your browser and go to: http://localhost:8080

Why use Docker for local testing?

1. **No Node/NPM Conflicts**: It doesn't matter if your local `npm` has permission errors; Docker handles its own permissions internally.

2. **Identical to Cloud**: If it works here, it is 99% guaranteed to work when you push it to Google Cloud Run.

3. **Clean Environment**: You don't have to install `firebase` , `recharts` , or `lucide-react` on your Mac; Docker does it inside the container.