

# Code Documentation

## Penguin Healthcare Solutions — Project Documentation

This document provides complete setup, installation, and run instructions for the project across macOS, Windows, and Linux. It also documents how the frontend connects to the backend server.

### Clone from GitHub

You can clone the repository using HTTPS, SSH, or GitHub CLI.

#### HTTPS

```
```bash
git clone https://github.com/ddulmail/penguin-healthcare-solutions.git
cd penguin-healthcare-solutions
```
```

#### GitHub CLI

```
```bash
gh repo clone ddulmail/penguin-healthcare-solutions
cd penguin-healthcare-solutions
```
```

### Code Contents

- Full source code available in this repository under:
  - `src/` (frontend and backend source)
  - `bin/` (utility scripts)
- Setup script: `bin/setup.sh` (macOS/Linux)

### Architecture Overview

- Backend: Spring Boot REST API (Java)
- Frontend: React

### Directory Structure (Key Files)

penguin-healthcare-solutions/

- |— build.gradle
- |— settings.gradle
- |— gradlew / gradlew.bat
- |— package.json
- |— bin/
  - | — setup.sh
- |— docs/
  - | — Documentation.md
- |— public/
  - | — index.html
- |— src/
  - | |— main/
    - | | |— java/com/SWE\_Team\_Penguin/Penguin\_Healthcare\_Solutions/
      - | | | |— PenguinHealthcareSolutionsApplication.java
      - | | | |— controller/
        - | | | |— model/
        - | | | |— repositories/
          - | | | | — services/
        - | | | | — resources/
          - | | | | — application.properties
  - | |— test/
    - | | — java/com/SWE\_Team\_Penguin/Penguin\_Healthcare\_Solutions/
  - | |— components/
    - | | |— AppointmentScheduler.jsx
    - | | |— AdmissionsNotifications.jsx
    - | | |— PrescriptionForm.jsx
    - | | |— PatientRecordView.jsx
    - | | |— UpdatePatientRecord.jsx
    - | | |— dashboard.jsx

```
| | └─ LoginForm.jsx
| └─ services/
| | └─ appointmentsService.js
| | └─ prescriptionsService.js
| | └─ admissionsService.js
| | └─ authService.js
| └─ data/
| | └─ mockPatientData.js
| └─ App.jsx
| └─ index.js
└─ gradle/wrapper/gradle-wrapper.properties
...
```

### **Prerequisites**

- Java JDK 17+ (OpenJDK recommended)
- Gradle Wrapper (included: `gradlew` / `gradlew.bat`)
- Node.js 18+ and npm

### **macOS (zsh)**

- Optional installers via Homebrew:

```
```bash
brew install openjdk@17
brew install node
...`
```

- One-time setup:

```
```bash
chmod +x bin/setup.sh
./bin/setup.sh
...`
```

- Run backend:

```
```bash
```

```
./gradlew bootRun
```

```
```
```

- Run frontend:

```
```bash
```

```
npm install # or npm ci
```

```
npm run start
```

```
```
```

- URLs:

- Backend: `http://localhost:8080`

- Frontend: `http://localhost:3000`

## **Windows (PowerShell)**

- Install JDK 17+ (Temurin/Adoptium or Oracle) and add `JAVA\_HOME`/PATH.

- Install Node.js 18+ from nodejs.org.

- Verify tools:

```
```powershell
```

```
java -version
```

```
node -v
```

```
npm -v
```

```
```
```

- Install frontend deps and run:

```
```powershell
```

```
npm ci # or npm install
```

```
npm run start
```

```
```
```

- Run backend:

```
```powershell
```

```
./gradlew.bat bootRun
```

```
```
```

- URLs:
  - Backend: `http://localhost:8080`
  - Frontend: `http://localhost:3000`

### **Linux (bash)**

- Install JDK 17+ and Node.js via your distro:

```
```bash
sudo apt update && sudo apt install -y openjdk-17-jdk nodejs npm # Debian/Ubuntu
or
sudo dnf install -y java-17-openjdk nodejs npm # Fedora
```
```

- Verify tools:

```
```bash
java -version
node -v
npm -v
```
```

- Install deps and run:

```
```bash
npm ci # or npm install
npm run start
```
```

- Run backend:

```
```bash
./gradlew bootRun
```
```

- URLs:

- Backend: `http://localhost:8080`
- Frontend: `http://localhost:3000`

## **## Connecting Frontend to Backend**

- Frontend services call the backend at ``http://localhost:8080`` (see ``src/services/*.js``).
- Start the backend before using routes that require authentication or server data.

## **Demo Mode (No Backend Required)**

- Demo routes allow testing without the backend:
  - ``http://localhost:3000/patient-record-demo``
  - ``http://localhost:3000/admissions-demo``
- Demo mode uses mock data and bypasses authentication.

## **Available Routes**

- ``/`` — Login (backend required)
- ``/dashboard`` — App dashboard
- ``/patient-record`` — Patient record viewer (backend required)
- ``/patient-record-demo`` — Patient record viewer (demo)
- ``/admissions`` — ADT submission (backend required)
- ``/admissions-demo`` — ADT submission (demo)
- ``/update-patient`` — Update medical information (backend required)
- ``/update-patient-demo/P001`` (also P002, P003) — Update medical information (demo)
- ``/appointments`` — Schedule/manage appointments (backend required)
- ``/appointments-demo`` — Appointments (demo)
- ``/prescriptions`` — Create e-prescriptions (backend required)
- ``/prescriptions-demo`` — Prescriptions (demo)

## **Test Credentials**

- Admin: ``admin`` / ``12345``
- Clinician: ``Rita`` / ``pass``

Demo :

<https://docs.google.com/videos/d/1pA4R4Pp4tKcPJvseUCcZls805RhUSwbjCT2D2fRVjP0/edit?usp=sharing>